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DOD MANAGEMENT

Examples of Inefficient and Ineffective Business Processes

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G A O
Accountability ★ Integrity ★ Reliability

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Mr. Chairman and Members of the Subcommittee:

We are pleased to be here today to discuss two case studies that clearly demonstrate the need for the Department of Defense (DOD) to reform its business operations. These two case studies are microcosms of the broad management challenges facing DOD that were highlighted in our June 4, 2002, testimony[1] before this Subcommittee. At that hearing, we provided our views of the underlying or root causes of DOD's long-standing inability to successfully reform its business operations, including a lack of sustained top-level leadership, cultural resistance to change, and military service parochialism. In addition, we identified what we believe are seven key elements necessary for successful reform, including approaching DOD's broad array of management challenges using an integrated, enterprisewide approach.

As discussed in our June 4, 2002, testimony, the failure of past reform efforts has lead to DOD's current business processes and data systems not being designed and implemented in an integrated fashion. These current processes and systems have been in place since the 1960s and 1970s and over time have evolved into an overly complex and error-prone operation including (1) little standardization across DOD components, (2) multiple systems performing the same tasks, (3) the same data stored in multiple systems, (4) manual data entry into multiple systems, and (5) a large number of data translations and interfaces that combine to exacerbate problems with data integrity.

[1]U.S. General Accounting Office, *DOD Financial Management: Important Steps Underway But Reform Will Require a Long-term Commitment*, GAO-02-784T (Washington, D.C.: June 4, 2002).

Today, at your request, we will discuss two case studies and the related financial and inventory management and systems modernization[2] challenges facing DOD. These case studies examine in detail the processes and data systems used by DOD to procure, control, and pay for critical items. The two case studies pertain to (1) the Joint Service Lightweight Integrated Suit Technology (JSLIST)[3] chemical and biological protective garments—coat and trousers—procured by contract and (2) computer equipment procured using the government purchase card. You also requested that we evaluate the economy, efficiency, and effectiveness of the processes and compare certain aspects of DOD's processes to those of two large leading-edge retail companies—Sears and Wal-Mart.

Summary

Both of these case studies highlight significant differences between DOD's business operations and those of two benchmark companies. These differences offer stark contrasts in the efficiency and cost of doing business. With regard to our first case study, for the inventory management process related to JSLIST, stovepiped, nonintegrated systems and processes result in DOD, the military services, and the military units not knowing how many items they have and where they are located. This lack of visibility has resulted in DOD excessing and selling JSLIST while at the same time procuring hundreds of thousands of new garments annually. The lack of system integration[4], meaning the ability to share data across business applications, continues to force multiple manual data entry into numerous systems. These manual processes result in errors, add significant administrative cost, and generally exacerbate asset visibility problems. Although the purchase card process was somewhat automated, we identified inefficient duplication of efforts and costly manual entry of

[2]Financial management, inventory management, and systems modernization are three of the six agency-specific high-risk areas related to DOD. For further details see U.S. General Accounting Office, *Major Management Challenges and Program Risk: Department of Defense*, GAO-01-244, (Washington, D.C.: Jan. 2001).

[3]JSLIST is a universal, lightweight, two-piece garment (coat and trousers) that when combined with footwear, gloves, and protective mask and breathing device, forms the warfighter's protective ensemble. Together, the ensemble is to provide maximum protection to the warfighter against chemical and biological contaminants without negatively impacting the ability to perform mission tasks.

[4]An integrated financial system coordinates a number of functions to improve efficiency and control. For example, integrated financial systems are designed to avoid the unnecessary duplication of data entry because transactions are entered only once. Systems can also be interfaced which means they have the ability to share data electronically.

data at the Defense Finance and Accounting Service (DFAS)-Columbus which sometimes resulted in processing fees well in excess of the cost of the item purchased.

DOD's business processes for procuring, controlling, and paying for JSLIST rely on manual data transmission and entry into nonintegrated data systems. We identified 128 processing steps performed by 11 DOD components, such as the Defense Logistics Agency (DLA), DFAS, and the military services. Of the 128 steps, 100—or 78 percent—involved manual entry or re-entry of data into one or more of the 13 nonintegrated data systems supporting the JSLIST processes. In addition to the inefficiencies associated with this complex, error-prone process, DOD lacks asset visibility over JSLIST at all levels. According to DOD, by the end of fiscal year 2001, it had procured 1.6 million JSLIST and about 1.2 million of these had been issued to the military services. However, the complex, nonintegrated, error-prone process precludes DOD from being able to quickly and accurately identify the location and condition of these JSLIST.

The DOD Inspector General has reported that the inventory system that DLA uses to control and maintain visibility over JSLIST not yet issued is of questionable accuracy. Further, at the military units that we visited, the methods they used to control and maintain visibility over JSLIST issued to them ranged from automated information systems, to spreadsheet applications, to paper, to dry eraser board, to none. The data maintained also varied. Some units maintained specific data including manufacturer, manufacture date, and production lot number, while other units maintained little or no data.

Lacking an integrated system with standard data, if DOD needed to immediately identify the location and condition of JSLIST, it would have to initiate a labor-intensive, time-consuming data call with no assurance of accurate results. This lack of visibility has also resulted in packaged, unused JSLIST—coat and trousers—being declared excess and sold to the public over the Internet for about $3 each, while at the same time DOD was procuring hundreds of thousands of JSLIST annually at a cost of over $200 per set (coat and trousers).

The business practices we identified at Sears and Wal-Mart, recognized as leading-edge inventory management companies, offer a glimpse of what improvements in the efficiency and effectiveness of DOD's business processes could yield. For example, we found that both companies had automated systems that electronically receive and exchange standard data

throughout the entire inventory management process, thereby reducing the need for manual data entry. As a result, for Sears and Wal-Mart, financial and logistical information moved through data systems with automated ordering of inventory from suppliers; receiving and shipping at distribution centers; and receiving, selling, and reordering at retail stores. Unlike DOD, with a proliferation of nonintegrated systems using nonstandard data, Sears and Wal-Mart require all components and subsidiaries to operate within a standard systems framework and do not allow individual systems development.

With respect to inventory visibility, we found that the automated systems allowed both Sears and Wal-Mart to quickly identify the location of inventory items at their distribution centers and retail stores. For example, based on our inquiry, Wal-Mart headquarters staff in Bentonville, Arkansas, was able to readily identify for us the number of 6.4 ounce tubes of a specific brand of toothpaste on hand at their Fairfax, Virginia, retail store along with other information such as daily and weekly sales.

Shifting to our second case study, we found that the purchase card process was somewhat automated and provided the flexibility to acquire goods and services on the day that they are needed. However, as we have found in related audit work,[5] purchases of computers with the purchase card were often not recorded in property records. Recording these items in the property records is an important step to ensure accountability and financial control over these assets and, along with periodic inventory, to prevent theft or improper use of government property. Without an automated mechanism to record accountable items acquired with the purchase card in the property records, the individual receiving the computer must manually inform the property management office of the acquisition for it to get properly recorded.

With respect to payment, for certain transactions processed through DFAS-Columbus, monthly credit card statements are mailed or faxed, and DFAS-Columbus personnel manually re-enter each purchase. This manual process occurs because (1) the Navy has chosen not to electronically submit its purchase card statements, (2) the DFAS-Columbus payment

[5]U.S. General Accounting Office, *Purchase Cards: Control Weaknesses Leave Two Navy Units Vulnerable to Fraud and Abuse*, GAO-01-995T, (Washington, D.C.: July 30, 2001) and *Purchase Cards: Continued Control Weaknesses Leave Two Navy Units Vulnerable to Fraud and Abuse*, GAO-02-506T, (Washington, D.C.: Mar 13, 2001).

system is not capable of accepting electronic purchase card statements from CitiBank, the purchase card contractor, and (3) defense agencies have not yet implemented electronic purchase card processing. According to DFAS-Columbus, defense agencies should have this capability this summer. The charge to DFAS-Columbus customers of processing manually re-entered purchase card statements is over $17 per line rather than nearly $7 per line for electronic transactions. In one example, a Navy activity submitted a monthly purchase card statement with 228 transactions for which DFAS charged over $3,900 to process, with the $17 per line processing fee well in excess of the price of several items purchased. In contrast, both Sears and Wal-Mart make extensive use of electronic data receipt and transmission.

Scope and Methodology

To trace the information flow and document key data systems used to procure, control, and pay for JSLIST, we reviewed and analyzed procedures and system documentation. Further, we discussed business processes with managers and observed processing at key DOD organizations, including the JSLIST Program Office, DLA, DFAS-Columbus, and the Defense Contract Management Agency. We discussed and observed JSLIST production with managers at the Southeastern Kentucky Rehabilitation Industries and discussed JSLIST inventory and issue to the warfighter at selected military units. To trace the information flow and identify key data systems related to a computer bought using the government purchase card, we reviewed established procedures and discussed processes with managers of key organizations, including DOD's Purchase Card Program Office, DFAS-Columbus, and two selected military service units.

To compare certain aspects of DOD's JSLIST inventory management and business processes related to a computer bought using the government purchase card, we discussed best business practices used by two leading retailers—Sears and Wal-Mart. We selected Sears and Wal-Mart based on our review of the study *Achieving World-Class Supply Chain Alignment: Benefits*, *Barriers*, *and Bridges*, by the Center For Advanced Purchasing Studies, Tempe, Arizona: 2001. We discussed and observed best practices used by these companies to manage their supply chain and compared these practices to the DOD business processes to identify opportunities to improve DOD's business processes. We briefed DOD managers, including officials from DOD's JSLIST Program Office, DLA, and DFAS, on the details of our review, including our objectives, scope, and methodology and our findings and conclusions. DOD officials generally agreed with our findings and conclusions. We relied upon our past work and that of the DOD

Inspector General in regard to accuracy and reliability of the information systems DOD uses to support JSLIST processing. Further, we did not audit the financial data provided by DOD or contained in its inventory systems. Details on where we performed our audit work are included in appendix I. We conducted our audit work from July 2001 through June 2002 in accordance with U.S. generally accepted government auditing standards, and we performed our investigative work in accordance with the standards prescribed by the President's Council on Integrity and Efficiency.

Case Study One: Joint Service Lightweight Integrated Suit Technology

We found that DOD's processes for procuring, controlling, and paying for JSLIST rely on manual data transmissions and entry into as many as 13 nonintegrated data systems. Much of the data required to procure and field JSLIST are transmitted using e-mails, faxes, telephones, and hard-copy documents that must be read and manually entered into automated systems. This reliance on manual data results in slow, error-prone business processes.

In addition to these inefficiencies, the use of manual, stovepiped, and nonintegrated processes and systems have limited DOD's ability to know how many JSLIST it has and where they are located. This lack of visibility was due to several factors. First, not all military units maintained the same JSLIST data. For example, some military units tracked key data such as manufacturer, manufacture date, and production lot number, while other units maintained little or no data. Second, military units maintained inventory data in nonstandard, stovepiped systems that did not share data with other DOD systems. The methods used to control and maintain visibility over JSLIST ranged from stand-alone automated systems, to spreadsheet applications, to pen and paper. One military unit we visited did not have any inventory system for tracking JSLIST. DOD's inability to quickly identify and locate JSLIST has contributed to some military units declaring them excess to their immediate needs, while at the same time DOD had been attempting to expedite the issuance of the JSLIST to military units in response to the events of September 11, 2001.

Discussions with two leading private sector companies identified innovative best practices that offer opportunities for DOD to improve its business processes. Unlike DOD, Sears and Wal-Mart have highly automated inventory management processes and use standard data and systems and electronic data transmission and entry. From the corporate level, these two entities maintain continuous visibility over inventory from their suppliers to the store shelf.

Background

During Operation Desert Shield/Desert Storm, DOD noted that its chemical and biological equipment (1) could cause unacceptable heat stress to the wearer, (2) could limit freedom of movement and impair job performance, (3) was bulky, and (4) was not fully interoperable across the services. Furthermore, most of the existing suits were no longer manufactured and those still in service would expire by 2007, given the 14-year expected life. To address these issues, DOD developed new, lightweight individual protective equipment such as the JSLIST, which DOD began procuring in 1997. An improved, multipurpose overboot is in procurement and new protective gloves are under development to improve manual dexterity and/or reduce heat stress on the wearer. Similarly, since the existing masks may cause some breathing difficulty, DOD is developing a new mask but does not expect to begin procurement until fiscal year 2006.[6]

JSLIST is a universal, lightweight, two-piece garment—coat and trousers—designed to provide maximum protection against chemical and biological contaminants. Figure 1 shows the entire ensemble, which in addition to the coat and trousers includes footwear, gloves, protective mask, and breathing device. Our study did not include these other components.

[6]U.S. General Accounting Office, *Chemical and Biological Defense: Improved Risk Assessment and Inventory Management Are Needed*, GAO-01-667 (Washington, D.C.: Sept. 28, 2001).

Figure 1: The Joint Service Lightweight Integrated Suit Technology (JSLIST) Ensemble

Source: JSLIST Program Office

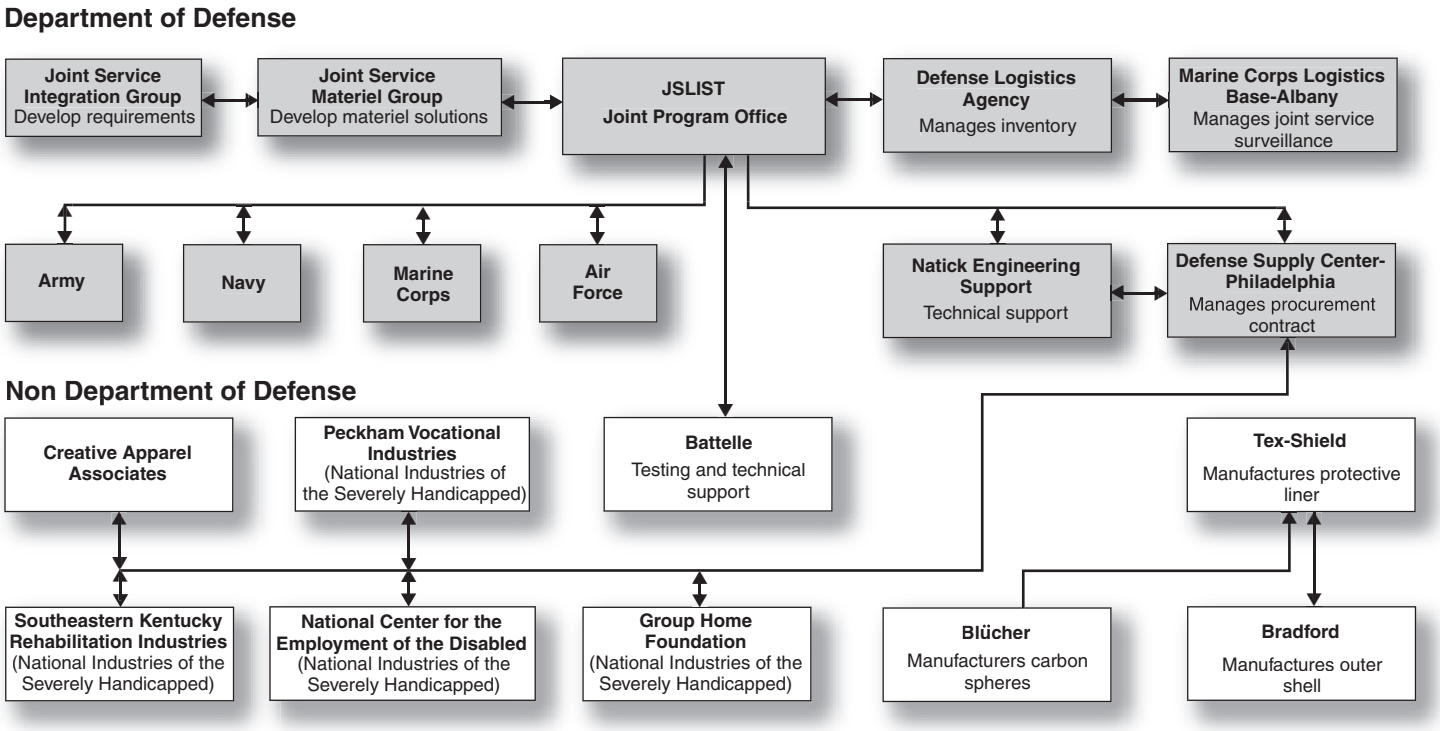
Together, the ensemble is designed to provide maximum protection to the warfighter against chemical and biological contaminants without negatively affecting the ability to perform mission tasks. The focus of our review was to map the flow of data associated with the procurement, inventory control, and payment for JSLIST.

According to DOD, for each JSLIST coat and trousers set they pay approximately $204. DOD began procuring JSLIST in fiscal year 1997 and expects to purchase about 4.4 million garments at a cost of about $1 billion over a 14-year period ending in fiscal year 2011. According to DOD, this amount includes the JSLIST procurement cost and a DLA surcharge for services, such as clarifying requirements, developing contract specifications and negotiating production levels with the contractors, developing and maintaining delivery schedules, and storing JSLIST[7] until issued to the military services. According to the JSLIST Program Office, by the end of fiscal year 2001, DOD had procured approximately 1.6 million JSLIST, and about 1.2 million had been issued to the military services. According to the Joint Service Set-Aside Project office, the JSLIST are expected to last about 14 years. The Joint Service Set-Aside Project office is responsible for testing JSLIST after 5 years in inventory, which represents the manufacturer's warranty period. Officials indicated that they have started to test JSLIST that were procured in 1997 and to date none have failed.

Figure 2 shows the private and public sector organizations involved in the production of JSLIST and the relationship among the various entities.

[7]DLA stores JSLIST at its distribution centers in Albany, Georgia; San Joaquin, California; and Yokuska, Japan.

Figure 2: Private and Public Sector Organizations Involved in the Production of the JSLIST



Source: JSLIST Program Office

These organizations include 8 private manufacturing companies, 1 private testing and technical support firm, and 11 DOD organizations. Of the 8 private sector companies, 5 actually manufacture the JSLIST garments and the other 3 provide the component parts—the outer shell, carbon spheres, and protective liner. All these organizations play a role in JSLIST production ranging from requirements development to issuance of JSLIST to the warfighter.

At this Subcommittee's June 2000 hearing on individual chemical and biological protective equipment, the DOD Inspector General testified that the DLA had weak inventory controls over the Battle Dress Overgarment (BDO)—the JSLIST predecessor. DLA had major problems identifying and removing from inventory defective BDO protective suits. As a result, some of the defective suits had been shipped to U.S. forces in high-threat areas. The DOD Inspector General also pointed out that DLA had "materially misstated" the number of protective suits being stored. According to DLA,

misplacement of items in the wrong storage areas and incorrect counts when the material was received contributed to the inventory inaccuracy.

Extensive Manual Processes Used to Procure, Control, and Pay for JSLIST

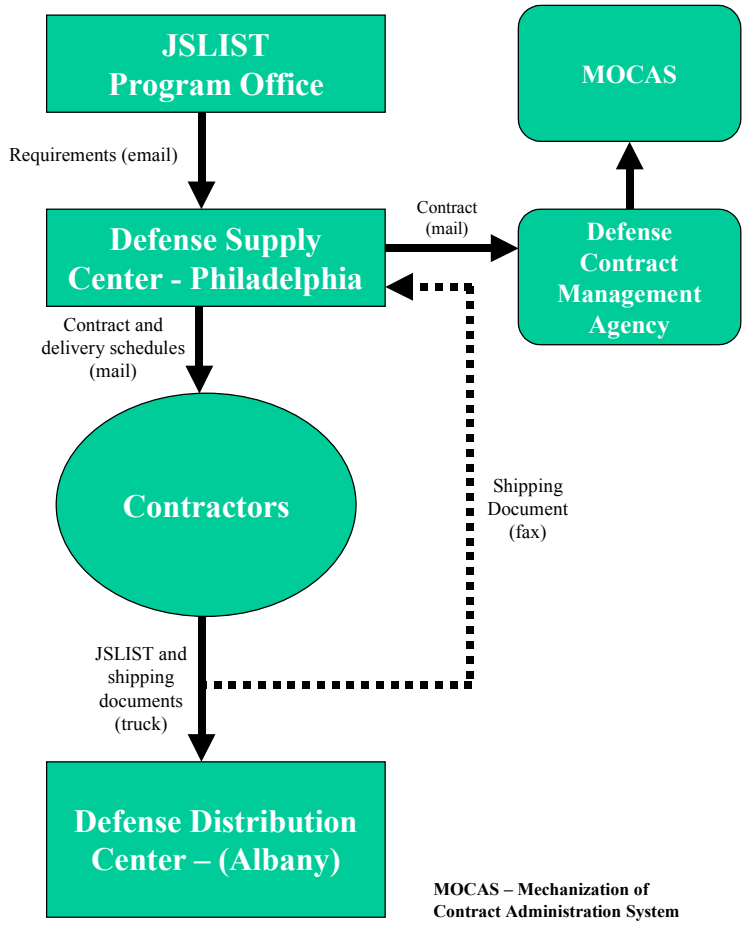
Our analysis of the data flows for the different JSLIST processes documented 128 steps. Of these 100 steps—78 percent—were manual, meaning that much of the data are transmitted using e-mails, faxes, telephones, and paper documents that must be read, interpreted, and entered into the 13 nonintegrated systems. The remaining 28 steps—22 percent—were by automated means. Appendix II provides a brief description of each system and identifies the function performed and the DOD system owner.

With so many manual processes, substantial data entry is required. We also found that even data transmitted electronically are manually verified before being entered into another data system. Such practices are highly inefficient and prone to error. DOD has acknowledged that in today's environment, current processes are slow and susceptible to errors. The following three sections highlight the data flows for the procurement, inventory control, and payment process. They provide a simplified representation of the actual processes and data flows, and the methods used for data transmission.

Procurement

In mapping the data flow for JSLIST, we found the procurement process to be the least automated. Figure 3 demonstrates the extensive use of manual processes between the JSLIST Program Office, the Defense Supply Center-Philadelphia, the contractors, and the Defense Distribution Center. Figure 3 does not include all of the processes that are associated with the procurement process.

Figure 3: Overview of the JSLSIT Procurement Process and the Use of Manual Processes



Source: GAO

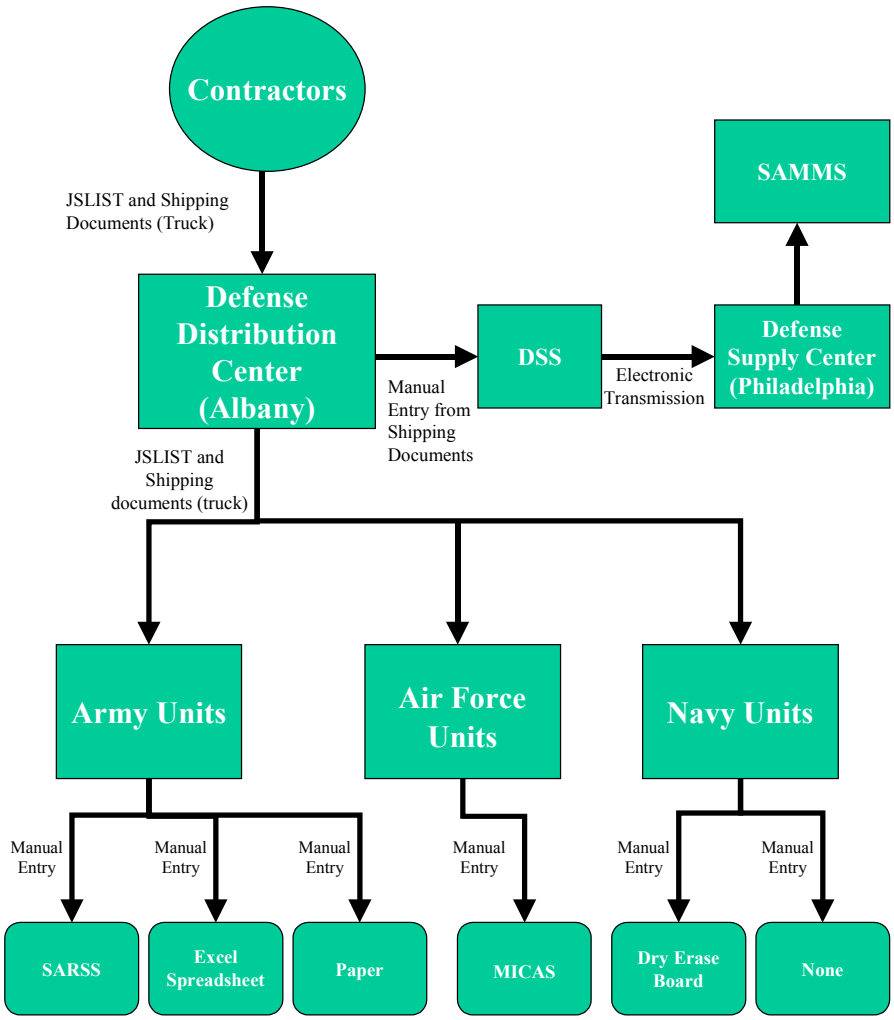
As shown, most of the data transmissions are manual—e-mail, fax, and regular mail. For example, JSLIST garments requirements data—which show the number and specific sizes that are to be manufactured—are e-mailed from the JSLIST Program Office to DLA's Defense Supply Center, Philadelphia, which is responsible for negotiating the terms of the contract with the five manufacturers. The contractor— via fax—notifies the Defense Supply Center, Philadelphia, that the JSLIST garments have been produced and shipped to the Defense Distribution Center for storage. The contractors also send shipping documents, including the Material

Inspection and Receiving Report (DD Form 250), with the JSLIST shipment to the Defense Distribution Center.

Inventory Control

The inventory control process is slightly more automated than the procurement process. This is due to DLA's use of the Distribution Standard System (DSS) and the Standard Automated Material Management System (SAMMS). However, as shown in figure 4, the military service units still use extensive manual data entry in their efforts to control the JSLIST garments that have been distributed to them.

Figure 4: Overview of the Inventory Control Process for the JSLIST



SAMMS – Standard Automated Material Management System
DSS – Defense Standard System
MICAS – Mobile Inventory Control Accountability System
SARSS – Standard Army Retail Supply System

Source: GAO.

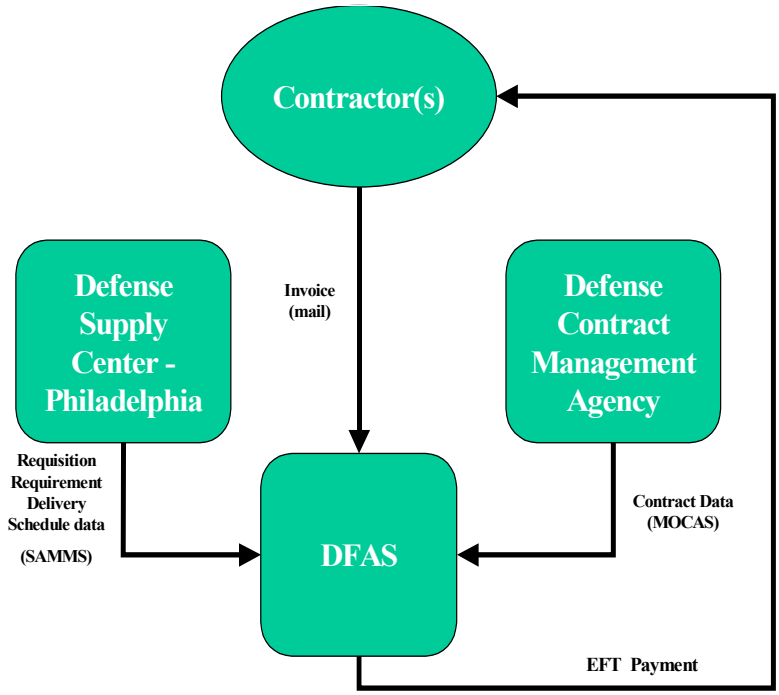
According to DLA personnel, DSS contains data on the number of JSLIST procured, the number in DLA's warehouse facilities, and the number of JSLIST that have been distributed to the military services. The data must be manually entered into DSS from the shipping documents that are

received from the contractors. Once entered into DSS, shipping receipt data are electronically passed from DSS to SAMMS at the Defense Supply Center-Philadelphia. DLA also pointed out, however, that once JSLIST are distributed to the military services, DSS does not maintain any inventory control. At this point, JSLIST data are removed from DSS and DLA loses visibility of JSLIST. As shown in figure 4, military services use various methods to maintain inventory control. Of the three Army units that we visited, one used an automated system—Standard Army Retail Supply Systems (SARSS), one used a spreadsheet application, and one used paper and pen. Of the two Navy units visited, one used a dry eraser board, with handwritten notes and one did not maintain an inventory of JSLIST. Both of the Air Force units visited used the Mobility Inventory Control Accountability System (MICAS) to control their JSLIST inventory. Since MICAS is a stand-alone system that operates independently at each location, data cannot be shared between the various locations, nor does it have the capability to provide data to higher command levels.

Payment Process

The payment process is the most automated. DFAS—the central organization in the payment process—uses more automated processes than any other organization visited. As shown in figure 5, electronic exchange of data was used more often in the payment process than in the procurement and inventory control processes.

Figure 5: Overview of the Payment Process for the JSLIST



EFT – Electronic Funds Transfer

MOCAS – Mechanization of Contract Administration System

SAMMS – Standard Automated Material Management System

Source: GAO.

As shown in figure 5, once the invoice is received from the contractor—via the mail—DFAS electronically obtains shipping data from the SAMMS, and contract data from the Mechanization of Contract Administration System (MOCAS). Invoice, contracting, and shipping data are all needed for DFAS to process the payment to the contractor by electronic funds transfer through the Standard Accounting and Budgeting Reporting System (SABRS).

Once the data enters DFAS, the payment process is automated and each DFAS division involved in the payment process has the ability to use the same data. For example, payment data are transmitted to the JSLIST Program Office via the SABRS. However, DFAS still relies on some manual processing. In DFAS' Entitlement Division, individuals manually check to ensure that required invoice data are in the Electronic Document Management system, and then manually enter these data into MOCAS system. This system helps supports the contract administration aspects of the JSLIST program. We have previously reported[8] on long-standing problems in contract pay through MOCAS. For example, for fiscal year 1999, DFAS data showed that almost $1 of every $3 in contract payment transactions was for adjustments to previously recorded payments—$51 billion of adjustments out of $157 billion in transactions.

We have also reported[9] that the manual entry of data into systems is prone to keypunch errors, errors caused when data entry personnel are required to interpret sometimes illegible documents, and inconsistencies among data in the systems. DOD has acknowledged that the systems used to support its business operations do not provide relevant, reliable, and timely information. As discussed in our June 4 testimony,[10] the department has begun efforts to develop an enterprise architecture that should detail the target or "to be" environment for DOD's business operation systems and show how these systems will interact. Managed properly, an integrated system development effort can clarify and thus help to optimize the interdependencies and interrelationships among an organization's business operations and the underlying data systems supporting these operations.

Lack of Asset Visibility Affects Mission Readiness

DOD and the military services lack asset visibility and control over JSLIST. There is no DOD-wide system that contains the data needed—number of JSLIST, manufacturer, manufacture date, and production lot number—to locate specific JSLIST garments that are in the possession of the military services. As a result, if the JSLIST garments had to be recalled for any reason, there is no assurance that DOD can readily or accurately locate the

[8]U.S. General Accounting Office, *Canceled DOD Appropriations:$615 Million of Illegal or Otherwise Improper Adjustments*, GAO-01-697 (Washington, D.C.: July 26, 2001).

[9]U.S. General Accounting Office, *Financial Management: Seven DOD Initiatives That Affect the Contract Payment Process*, GAO/AIMD-98-40 (Washington, D.C.: Jan. 30, 1998).

[10]GAO-02-784T.

1.2 million JSLIST that have been issued to the military services. In essence, DOD is faced with the same predicament today as it had in June 2000, when hearings by this Subcommittee chronicled DOD's inability to identify the location of the BDOs—the predecessor of JSLIST. BDOs needed to be recalled and removed from the inventory because they were found to be defective, but even after a data call DOD was unable to retrieve all of the BDOs.

Our September 2001 report[11] noted that as of April 2001, DOD had not found about 250,000 of the defective BDO suits. DOD was not certain if the suits had been used, were still in supply, or were sent to disposal. That report also pointed out that DOD could not (1) monitor the status of its protective equipment inventory because the military services and DLA used at least nine different nonintegrated data systems, (2) determine whether all of its older chemical suits would adequately protect service members because some of the inventory systems did not contain essential data needed to determine usability of inventoried chemical suits, and (3) easily identify, track, and locate defective suits because inventory records did not always include contract and lot numbers. These shortcomings are consistent with the long-term problems in

DOD's inventory management that we have identified as a high-risk area due to a variety of problems, including ineffective and wasteful management systems and procedures.[12] To improve DOD's control and accountability of chemical and biological equipment, we made several recommendations, one of which was to implement a fully integrated inventory management system.

Our visits to DLA's Defense Distribution Center, Albany, GA, and selected military service units found that these weaknesses remain today. DOD does not have reliable asset visibility for JSLIST throughout the department. This problem can be attributed to several factors. First, according to the DOD Inspector General in testimony before this Subcommittee in June 2000, DSS—a relatively new and modern system is "chronically inaccurate." The DOD Inspector General pointed out that its physical count of chemical protective suits disclosed that 420,000 suits were not on-hand as recorded in the inventory balance in DSS. Even if DSS

[11]GAO-01-667.

[12]GAO-01-244.

were accurate, it only provides visibility and control over JSLIST located in DLA's warehouse facilities. DSS does not contain any data that can be used from a departmentwide perspective to identify the location of the 1.2 million JSLIST garments that have been distributed to the military services.

Second, once JSLIST are issued to the military service units, the lack of standard data and nonintegrated systems hinders asset visibility. Our visits to Army, Navy, and Air Force military units disclosed that all units did not maintain key data such as manufacturer, manufacture date, and production lot number. These data would be essential if JSLIST had to be recalled. Without these data, DOD would have to initiate a worldwide data call, with no assurance of the accuracy of the result. Of the three Army units visited, only one maintained these data, while neither of the two Navy units maintained these key data. Both Air Force units maintained the manufacturer, manufacture date, and production lot number.

In addition, the units we visited used stovepiped, nonintegrated systems to track their JSLIST. As shown in figure 4, the method used varied from an automated system to no tracking of any kind. Of the Army units, one unit used the Standard Army Retail Supply System, another unit used a stand-alone spreadsheet application, and the third unit used paper and pen to control its JSLIST inventories. At the two Navy units visited, one used a marker and dry eraser board and the other Navy unit did not maintain a JSLIST inventory—manual or automated. Both Air Force units used MICAS to control JSLIST. According to Air Force personnel, this is a standard system used to maintain comprehensive control of assets from receipt to disposal. Information must be entered manually into MICAS. Air Force personnel also stated that they are able to identify and locate service personnel that have JSLIST in their possession by using MICAS. The Air Force personnel noted that MICAS was designed for use at the unit level, but the Air Force plans to upgrade the system to provide more visibility over JSLIST to higher command levels.

Personnel at the Army and Navy units were interested in the potential for using MICAS. We provided these personnel with a point of contact in the MICAS program office. As of May 2002, one Army unit decided to try MICAS in a stand-alone mode to test its suitability and one Navy unit decided not to consider the use of MICAS it only used JSLIST for training and therefore it determined that a system was not needed. The other Army and Navy units are considering the use of MICAS.

Because of DOD's weaknesses locating and recalling defective BDOs, we inquired of the Defense Threat Reduction Agency—responsible for funding the JSLIST program—if they had the means to locate all JSLIST departmentwide if a similar situation were to occur. A program official stated that they could account for the JSLIST up to the point they are distributed to the military services. As noted previously, once suits are distributed, accountability becomes more difficult because each service has a separate logistics, supply, and maintenance management system for tracking items. Further, the official noted that these systems are not connected.

The program official also stated that the requirement to track location, manufacturer, manufacture date, and production lot number of each JSLIST would be the responsibility of DLA's Business System Modernization (BSM) program. BSM is an 8-year (fiscal year 2000 through fiscal year 2007), four-phased program that is intended to modernize DLA's business functions such as materiel management, distribution, and cataloguing by replacing obsolete, nonintegrated data systems with a web/network-based logistics system using commercial, off-the-shelf products. The project is estimated to cost nearly $900 million. As discussed in our June 2001 report,[13] BSM is intended to modernize DLA's current materiel management business function from being a mere provider and manager of physical inventory to becoming primarily a manager of supply chains—linking customers with appropriate suppliers and tracking physical and financial assets.

However, we believe reliance on BSM to provide adequate visibility over JSLIST is ill advised for several reasons. First, as pointed out in our June 2001 report, BSM was being implemented without the benefit of a DLA architecture or a DOD-wide logistics management architecture. Further, we noted that DLA did not have the management controls in place to develop, implement, and maintain an architecture. As discussed in our June 4 testimony,[14] without an architecture to guide and constrain information technology investments, DOD runs the serious risk that its system efforts will perpetuate the existing system environment that suffers from system

[13]U.S. General Accounting Office, *DLA Should Strengthen Business System Modernization Architecture and Investment Activities*, GAO-01-631 (Washington, D.C.: June 29, 2001).

[14]GAO-02-784T

duplication, limited interoperability, and unnecessarily costly operation and maintenance.

Second, even if DLA successfully implements the inventory control phase of BSM by March 2005, the majority of JSLIST may have already been procured and issued to the military services without asset visibility, including a record of critical tracking data, such as manufacturer, manufacture date, and production lot number. As of the end of fiscal year 2001, about 1.6 million JSLIST had been purchased and about 1.2 million garments had already been issued to the military services. At the expected procurement rate of 330,000 to 350,000 JSLIST annually, DOD will have purchased about 3 million of the 4.4 million of the JSLIST by fiscal year 2005.

Lack of Visibility Contributed to Excessing and Selling JSLIST

DOD's lack of asset visibility over the JSLIST has resulted in poor inventory control. While DOD expedited the issue of the JSLIST garments to the military services in response to the events of September 11, 2001, Army, Navy, and Air Force units have sent JSLIST to the Defense Reutilization Marketing Office (DRMO) as being excess to their immediate needs. From January 2001 through June 2002, 1,934 JSLIST coats and trousers valued at about $207,000[15] were turned into DRMO. Of the 1,934 coats and trousers declared excess, 1,813 were turned-in after September 11, 2001. Table 1 shows the disposition of the 1,934 coats and trousers.

Table 1: Disposition of JSLIST Coats and Trousers Declared Excess

Number of coats and trousers excessed	Acquisition price	Disposition
429	$45,745	Public auction
917	$96,206	Scrapped[a]
275	$30,141	Reutilized[b]
313	$34,891	Pending[c]

[a]Not usable property

[b]Reissued to another DOD component, federal agency or program

[c]Items still in the property screening phase and eligible for reutilization

[15]Reported acquisition price.

As shown in the table 1, 275 of the coats and trousers were reissued to other government entities. One of the purposes of DRMO is to reallocate inventory that is excess to one organization's needs to an organization that has insufficient inventory to meets its needs. We do not have any information regarding the rationale as to why 917 coats and trousers were scrapped and 313 are considered pending, which means they are eligible for reutilization.

According to DLA, the 429 coats and trousers that were sent to a DOD contractor, Government Liquidation,[16] and reportedly sold, at internet auction for approximately $1,100—or less than $3 each. As of June 18, 2002, none of the JSLIST reportedly sold by Government Liquidation had been released and remained at the company's warehouse in Kapolei, Hawaii.

We met with personnel at Hickam Air Force Base, Hawaii, and the Navy Explosives Ordnance Disposal Unit, Barbers Point, Hawaii, to determine why the JSLIST were excessed and sent to DRMO.

- Officials from the Air Force unit stated that JSLIST was sent to DRMO because (1) they did not belong to their unit and had been in their warehouse for at least 3 years, (2) the boxes containing JSLIST were marked "training only," and (3) although still in vacuum-sealed packages, they thought JSLIST had exceeded their expiration date. They also indicated that prior to turning JSLIST in to DRMO, they checked with the Base Supply Office and were informed that no one else on the base needed JSLIST.

- The Navy unit stated that JSLIST were sent to DRMO because they had more than the 32 required to meet their immediate needs. Prior to turning JSLIST in to DRMO, the Navy unit did not consult with the Supply Office to determine if they could be used elsewhere. They indicated that they thought this was a DRMO responsibility. Believing that the garments were in excellent condition, they coded them "E" upon turning them in to DRMO. However, an item code of "E" signifies that the goods are damaged.

[16]Government Liquidation, LLC (GL) is under contract with the Department of Defense for the sale of surplus property. GL operates an online sales channel that allows surplus buyers to purchase available assets over the Web in a "convenient and open environment." GL manages over 2 million square feet of warehouse space and maintains offices on over 150 military bases throughout the continental U.S., Alaska, Hawaii, Puerto Rico, and Guam.

Our physical inspection of the JSLIST garments in the Government Liquidators warehouse found that all but 30 were marked "training only." These 30 were turned in by the Navy unit and appeared to be in good condition. The "training only" JSLIST should not be used in a combat environment because they are considered to be defective for that purpose. However, since they were still in vacuum-sealed packages, they appeared suitable for training purposes. When JSLIST are issued to the warfighter, they generally receive a number of sets—coat and trousers—based upon their assignment. For example, at one of the Air Force units we visited, each member is to have five JSLIST sets—four for operations and one for training. Without a "training only" JSLIST, one that would have otherwise been available for operations must be used for training.

On June 19, 2002, we told the JSLIST Program Manager about this situation. He stated that he was not aware that JSLIST garments were being excessed and sold and acknowledged that DOD does not have visibility over the JSLIST garments. He also stated that military service units were "clamoring" for JSLIST garments for training purposes. Further, he stated that none of these garments should have been turned in to DRMO. We suggested that he take action to terminate the sale of these garments. He indicated that he would initiate immediate action to do so.

Best Business Practices Offer Opportunities for DOD to Improve Efficiency and Effectiveness of its Business Operations

Private sector companies, driven by today's globally competitive business environment, have developed innovative best business practices to cut costs and meet customer needs by streamlining their logistics operations. Best business practices refer to the processes, practices, and systems identified in public and private organizations that performed exceptionally well and are widely recognized as improving an organization's performance and efficiency in specific areas. Some of the most successful improvement efforts include a combination of practices that are focused on improving the entire logistics pipeline—an approach known as supply chain management. DOD has acknowledged that best business practices of private industry offer opportunities for making significant improvements to its business operations. As evidenced by the information presented today, implementation of fundamental private sector supply chain management practices by DOD would substantially improve it efficiency and effectiveness.

Our discussions with two leading-edge retail companies—Sears and Wal-Mart—identified business practices that are vastly different than those employed by DOD. Unlike DOD, which has a proliferation of nonintegrated systems, nonstandard data, extensive use of manual processes, and limited visibility over inventory, Sears and Wal-Mart are at the other end of the spectrum. Sears and Wal-Mart are highly automated, use standard data, and make extensive use of electronic data interchange (EDI).[17] Further, each entity is able to maintain visibility of its inventory throughout the various levels of its organization.

Sears, a leading retailer of apparel, home and automotive products, and services, had reported annual revenue of over $41 billion and net income of approximately $735 million for its fiscal year 2001. Sears operates 867 mall-based retail stores, most with co-located Sears Auto Centers, and an additional 1,318 specialty stores including hardware, outlet, tire and battery stores as well as independently owned stores, primarily in smaller and rural markets. Wal-Mart Stores, Inc., is the world's largest retailer with reported annual net revenue of over $193 billion and net income of almost $6.3 billion for its fiscal year 2001. The company operates 4,189 retail stores in all 50 states and 9 foreign countries. Of these stores, 2,348 are regular stores, 1,294 are supercenters, 528 are Sam's Clubs, and 19 are neighborhood markets.

Wal-Mart and Sears Are Highly Automated

As previously discussed, the processes DOD uses to procure, control, and pay for the JSLIST garments are characterized by numerous manual interventions with support from as many as 13 nonintegrated automated information systems. With 78 percent of the data used to support the JSLIST program involving some form of manual entry, DOD's logistics processes are slow and susceptible to error. As a result, DOD's business processes do not provide relevant, reliable, and timely financial and logistical information. In contrast, Sears and Wal-Mart have systems that provide relevant, reliable, and timely information.

As noted in our June 4 testimony[18] before this Subcommittee, systems have proliferated within DOD. At the time of the hearing, DOD acknowledged that it used at least 1,127 systems in the processing of financial information.

[17]Electronic data interchange (EDI) is the automated exchange of predefined and standardized business data among information systems of two or more organizations.

[18]GAO-02-784T.

For the most part, these systems are not integrated with each other. In the past, DOD's system development efforts have been stovepiped within the department's organizational entities, with system development money spread across DOD and no central control. In addition, standard data were not always used across organization boundaries. These limitations preclude DOD and the Congress from receiving the relevant information that is needed in the decision-making process.

This is clearly demonstrated by the use of 13 nonintegrated systems associated with JSLIST. In our discussions with Wal-Mart officials, they noted that Wal-Mart does not permit its subsidiaries or components to develop their own system solutions. System funding and development is viewed from a corporate perspective. Therefore, stovepiped efforts that exist in DOD would not occur within Wal-Mart. Wal-Mart also noted that when an acquisition is made, the new entity is required to convert to the Wal-Mart system—this brings about the standardization of data. Standardization of data and integration of systems is important because it aids in financial accounting and inventory management, including asset visibility.

In dealing with suppliers, both Sears and Wal-Mart make extensive use of EDI—which means that data are received and transmitted to and from suppliers electronically. In essence, using EDI virtually eliminates the need for human intervention and thereby helps to reduce the risks of errors being made. Sears and Wal-Mart representatives stated that the more manual intervention in the process, the less likely the information will be relevant, reliable, and timely. Sears' personnel pointed out that over 99 percent of vendors' purchase orders are processed using EDI. According to Sears' representatives, if a supplier does not have EDI capability, they are required to contract with a third party to submit the data to Sears electronically. Similar to Sears, Wal-Mart also makes extensive use of EDI. According to Wal-Mart representatives, about 85 percent of their suppliers use EDI.

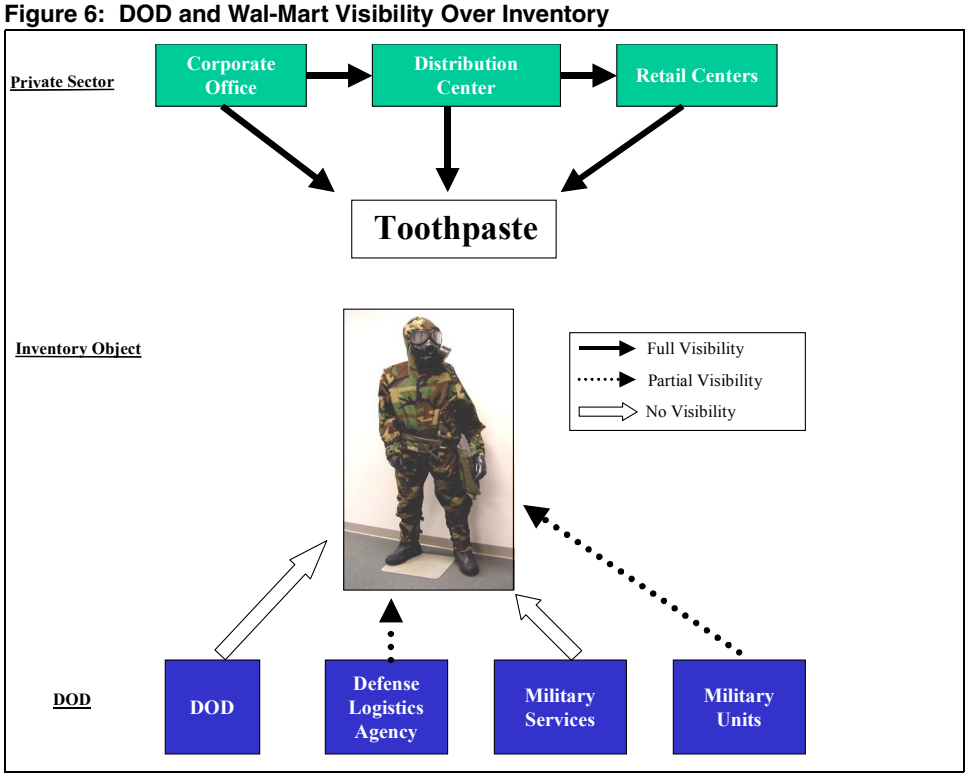
Visibility Over Inventory

As previously discussed, DOD cannot readily determine the location of the 1.2 million JSLIST that have been issued to the military services because of nonstandard systems and the lack of standard data across DOD—manufacturer, manufacture date, and production lot number—that would be needed to quickly locate and remove JSLIST from inventory, if recalled. These data should also be maintained to locate the JSLIST and, if necessary move them where needed in the event of a chemical or biological attack. Unlike DOD, Sears and Wal-Mart have integrated systems with standard

data across the organizations and as a result have visibility over inventory regardless of location.

For example, at our request, Wal-Mart headquarters staff in Bentonville, Arkansas immediately identified for us the number of 6.4 ounces tubes of a brand-name toothpaste on the shelf at one of their retail stores in Fairfax, Virginia. In addition to identifying 25 tubes of this toothpaste at Fairfax, Virginia, at approximately 1:15 PM, on June 12, 2002, Wal-Mart's system showed daily and weekly product sales and the date of the last shipment and the quantity received. Figure 6 compares Wal-Mart's and DOD's visibility over their respective inventories.

Figure 6: DOD and Wal-Mart Visibility Over Inventory



Source: GAO

According to Wal-Mart representatives, the level of visibility they have over inventory items as shown in figure 6, is critical to quickly remove from the shelf any recalled items. Wal-Mart views the efficient and effective removal of recalled items essential to maintaining credibility with its customers.

Wal-Mart also demonstrated control and visibility over its inventory at the Bentonville, Arkansas Distribution Center. The information in the system showed the specific location and number of a certain brand of 27-inch televisions in the warehouse. We selected 4 of the 202 televisions listed and verified that all 4 were at the specific location indicated in the system.

In addition to using technology to streamline their inventory processes, Sears and Wal-Mart personnel identified several other keys to their success. For example, they stated there needs to be an understanding throughout the organization of what it is trying to achieve. Clearly, all must understand the goals and objectives and it is imperative that all parties work in a cooperative manner. At DOD, as discussed in our June 4 testimony,[19] this has not always been the case. Cultural resistance to change and military service parochialism have played a significant role in impeding past attempts to implement broad-based management reforms at DOD. If the barriers to change are not removed, DOD will continue to be faced with the business-as-usual mentality and its current endeavors to bring about substantive change to the department's current flawed business operations will be unsuccessful. If this occurs, as it has in the past, billions of dollars will have been spent without any marked improvement in departmental operations.

Wal-Mart officials also noted that another key element in their success has been the use of individual performance metrics and incentives throughout the organization. Whether it is the manager of a given store or someone working in the warehouse, performance metrics have been established and each person is evaluated against those metrics on a routine basis. If the person's performance exceeds the metrics, he or she is rewarded. For example, hourly workers can receive wage increases for exceeding corporate productivity and inventory accuracy goals. Store managers have metrics such as store profitability and inventory shrinkage and receive bonuses for achieving the metrics. For DOD we previously identified[20] the lack of incentives as one of the major underlying causes for the failure of past reform efforts within the department.

[19] GAO-02-784T.

[20] GAO-02-784T.

Case Study Two: Government Purchase Cards

Using computers acquired by government purchase cards as a case study, we found that inefficient billing procedures at DFAS-Columbus have increased the costs being incurred by some DOD customers for the payment of monthly purchase card statements. For certain transactions processed through DFAS-Columbus, monthly credit card statements are

mailed or faxed and each purchase is manually re-entered because (1) the Navy has chosen not to electronically submit its purchase card statements, (2) the payment system is not capable of accepting electronic purchase card statements from CitiBank, the purchase card contractor, and (3) defense agencies have not implemented electronic purchase card processing. DFAS-Columbus charges customers over $17 per line if the data are manually entered and about $7 per line if the data are transmitted electronically. According to the DFAS-Columbus Commercial Pay Services Business Manager, across all DFAS Centers[21] purchase card statements are processed electronically for about 90 percent of the Air Force's statements, about 80 percent of the Army's statements, and about 50 percent of the Navy's statements.

Background

The purchase card is a governmentwide commercial credit card issued under a government contract to federal agency employees to more efficiently purchase needed goods and services directly from vendors. The purchase card can be used for both micropurchases and payment of other purchases. The Federal Acquisition Regulation, Part 13, "Simplified Acquisition Procedures," establishes criteria for using purchase cards to place orders and make payments. In addition, the Department of the Treasury, DOD and the military services have issued regulations, policy, and guidelines governing the use of the purchase card.

Prior to DOD's implementation of the purchase card program in 1994, buying goods and services was a labor- and paper-intensive process—requisitions were prepared and sent to procurement offices. The procurement offices issued purchase orders, goods and services were delivered, receiving reports were prepared, and payments were then made. The purchase card program was designed to simplify the purchase process by eliminating the need to process purchase requests through procurement

[21]DFAS Centers are located in Columbus, OH; Cleveland, OH; Denver, CO; Indianapolis, IN; and Kansas City, MO.

offices and avoiding the administrative and documentation requirements of the traditional contracting processes. In mapping the flow of data for the use of the purchase card to procure, control, and pay for a computer item, we identified 19 systems. Appendix III provides a brief description of each system identified, the function performed by the system, and the system owner.

When scanning the purchase card to obtain authorization through the bank network, merchants are to verify the validity of the transactions using a point of sale scanning device. This device can perform up to 50 authorization checks such as verifying the expiration date and account number, ensuring the card has not been reported lost or stolen, and determining that the purchase amount is within the prescribed dollar limits. In fiscal year 2001, DOD reported that it used the purchase card in procuring goods and services valued at over $6.1 billion.

Although we support a well-controlled purchase card program to streamline the government's acquisition process, significant breakdowns in internal controls have contributed to fraudulent, improper, and abusive purchases and theft and misuse of government property. Our March 13, 2002,[22] testimony highlighted the vulnerability of two Navy units to fraudulent, improper, and abusive use of government purchase cards. Currently, we have additional efforts ongoing to review internal controls over purchase card processes used by selected Army, Air Force, and Navy units.

Inefficient Billing Process Increases Costs

At DFAS-Columbus, we observed that much of the purchase card payment process is manual. Certified monthly purchase card statements are manually received from Navy working capital fund activities and defense agencies. Upon receipt of the monthly statements, DFAS-Columbus accounting technicians manually enter line-by-line transaction data into the Computerized Accounts Payable System (CAPS) for payment. The data entered include information such as document number, year, activity and funding code, cost code, and dollar amount for each individual transaction. The manual entry of the data is the result of CAPS not being capable of accepting purchase card statements electronically from CitiBank—the government contractor providing purchase card services to the Navy.

[22] GAO-02-506T.

Further, DFAS-Columbus personnel informed us that even if CAPS had the capability, Navy working capital fund purchase card transactions would have to be entered manually because the Navy has decided not to electronically submit purchase card statements.

According to DFAS-Columbus officials, DFAS charges $17.13 for each line on the monthly statement that must be manually entered into the payment system. However, the processing fee is reduced to $6.96 per document line, if the monthly statement is electronically processed. Since DFAS is a working capital fund activity, the fee charged should represent the actual cost being incurred in providing the service. We did not audit these fees to determine if they represented actual costs. As noted previously, in our discussions with Sears and Wal-Mart, we were informed that the use of EDI is critical. For example, at Sears, over 99 percent of the purchase orders are transmitted via EDI, which greatly reduces the amount of manual entry that is needed and also reduces the risk that errors will be made in the re-entry of data.

The following examples show the cost of manual entry of purchase card transactions.

- On February 13, 2002, DFAS-Columbus received a certified purchase card monthly statement detailing 271 purchases totaling nearly $24 million from the Defense Commissary Agency, Fort Lee, Virginia. At $17.13 per document line, the DFAS fee for manually processing this invoice was over $4,600. If the Defense Commissary Agency could have submitted the invoice electronically, the DFAS fee would have been about $1,890, or less than half the charge of manual processing.

- On January 29, 2002, DFAS-Columbus received a certified purchase card monthly statement detailing 228 lines on the monthly statement for purchases costing nearly $957,000 from the Navy Fleet Material Support Office in Mechanicsburg, Pennsylvania. Since the 228 lines had to be manually entered into CAPS, the Navy incurred a processing fee of $3,900. However, if the monthly statement had been electronically processed, the Navy would have paid DFAS approximately $1,590.

As shown in table 2, we found instances in which the amount of the purchase was less than the amount charged for processing the one line from the monthly statement.

Table 2: Selected Line Items From a Purchase Card Monthly Statement and Related DFAS Processing Fee

Vendor	Amount of purchase	Processing fee
Staples	$4.37	$17.13
Culligan Water Conditioning	$5.50	$17.13
Office Depot	$8.59	$17.13

Source: Certified purchase card monthly statement dated January 21, 2002, from the Fleet Industrial Supply Center, Norfolk, VA, and DFAS-Columbus.

DFAS-Columbus officials informed us that purchase card statements from Navy working capital fund activities that are paid by DFAS-Columbus are manually processed for two reasons. First, the Navy has chosen not to electronically send purchase card statement paid from Navy working capital fund activities. Second, DFAS-Columbus has not yet made the necessary enhancements to the payment system to receive electronic invoices from the Citidirect system—the system used by the contractor providing the Navy purchase cards. Third, defense agencies have not implemented electronic purchase card processing. According to DFAS-Columbus personnel, monthly statements they receive from defense agencies, including the Defense Contract Management Agency, Defense Commissary Agency, and the Defense Information Systems Agency are to be received electronically beginning this summer.

Further, our November 2001 report[23] discussed concerns we had with the failure to record accountable items in the property records. Accountable property includes easily pilferable or sensitive items such as computers and related equipment, digital cameras, and cell phones. Our report pointed out that at two Navy activities we identified instances where computer monitors and laptop computers were not recorded in their property records and could not be found. Recording these items in the property records is an important step to ensure accountability and financial control over these assets. In addition, our also report expressed concern about the use of the government purchase card to procure computers that could be more economically and efficiently procured through bulk purchases. We made recommendations to the Commander of the Naval Supply Systems Command aimed at correcting both of these problems.

[23]U.S. General Accounting Office, *Purchase Card: Control Weaknesses Leave Two Navy Units Vulnerable to Fraud and Waste*, GAO-02-32 (Washington, D.C.: Nov. 2001).

Conclusion

The JSLIST and purchase card case studies clearly demonstrate that DOD's current business operations are inefficient and ineffective. Specifically, these case studies are real-time examples of the high cost of nonintegrated systems that require substantial manual intervention in nearly every step of the process. In addition, mission performance is also affected by these processes as shown by DOD's lack of visibility over the JSLIST. These case studies are small examples of the broader financial and inventory management and systems modernization challenges facing DOD that were highlighted in our June 2, 2002 testimony[24] before this Subcommittee.

The integrated, automated processes used by Wal-Mart and Sears offer a glimpse of the cost savings and improved mission performance that DOD could achieve with successful reform. Unlike DOD, market forces and a strong system of accountability drive Sears and Wal-Mart to operate as efficiently and effectively as possible. As we have previously stated, for DOD to succeed in its reform efforts, strong leadership from the Secretary will be necessary to develop a system of accountability and incentives and to cut through the deeply embedded cultural resistance to change and service parochialism. In addition, continued congressional oversight such as the hearing today will be critical to successfully reforming DOD's business operations. The Secretary has recognized the importance of reform and estimated that DOD could save 5 percent of its budget—or about $15 billion to $18 billion annually—by successfully transforming DOD's business processes.

Mr. Chairman, this concludes our statement. We would be pleased to answer any questions you or other members of the Subcommittee may have at this time.

Contacts and Acknowledgments

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[24] GAO-02-784T

Locations Visited

In mapping the information flow for the procurement, inventory control, and payment of the Joint Service Lightweight Integrated Technology Suit, we visited the following locations.

- JSLIST Program Office, Quantico, Virginia.
- Defense Supply Center, Philadelphia, Pennsylvania.
- Defense Finance and Accounting Service, Columbus, Ohio.
- Defense Contract Management Agency, Cincinnati, Ohio.
- Defense Distribution Center, Albany, Georgia.
- Joint Set-Aside Project, Marine Corps Logistics Base, Albany, Georgia.
- Air Force's 919th Special Operations Wing, Eglin Air Force Base, Florida.
- Air Force's 16th Special Operations Wing/Logistics, Hurlburt Field, Florida.
- Air Force's Chemical Training Unit, Hickam Air Force Base, Hawaii.
- Army's 101st Airborne Division, Fort Campbell, Kentucky.
- Army's 5th Special Operations Forces, Fort Campbell, Kentucky.
- Army's 160th Special Operations Aviation Regiment, Fort Campbell, Kentucky.
- Navy's Disaster Preparedness, Naval Air Station, Pensacola, Florida.
- Navy's Explosive Ordnance Disposal Unit, Eglin Air Force Base, Florida.
- Navy's Explosive Ordnance Disposal Unit, Barbers Point, Hawaii.

In mapping the information flow for the procurement, inventory control, and payment of a computer item using a government purchase card, we visited the following locations.

- DOD Purchase Card Program Office, Falls Church, Virginia.

- Defense Finance and Accounting Service, Columbus, Ohio.
- Air Force Materiel Command, Wright-Patterson Air Force Base, Ohio.
- Army Soldier Biological and Chemical Command, Natick, Massachusetts.

In order to compare DOD business processes with those of leaders in the retail industry we visited:

- Sears, Roebuck, and Company, Hoffman Estates, Illinois.
- Wal-Mart Incorporated, Bentonville, Arkansas.

Key Data Systems Used to Procure, Control, and Pay for JSLIST Protective Garments

This section includes general information describing each of the 13 information systems used to support the procurement, inventory control, and payment processes for the JSLIST protective chemical/biological equipment purchased through contracts.

System owner	System name	Process supported	System description
DLA	Distribution Standard System (DSS)	Inventory control	Supports management of all business processes of the department's warehouse operations, including the processing of material requisition orders, reporting shipping information to customers, and providing visibility of asset quantity, condition, and location.
DLA	Standard Automated Materiel Management System (SAMMS)	Procurement, Inventory control and Payment	Supports wholesale consumable item inventory management processes at defense supply centers, including processing requisitions, forecasting requirements, generating purchase requests, and maintaining stock levels, technical data, item identification, and asset visibility.
DFAS	Electronic Document Access (EDA)	Procurement and Payment	Stores documents such as contracts, contract modifications, government bills of lading, and payment vouchers as electronic images and provides personnel from multiple DOD communities access to these documents.
DFAS	Electronic Document Management (EDM)	Procurement and Payment	Converts and stores paper documents such as contracts, invoices, and receiving reports as electronic images providing document imaging, electronic folders, and workflow processing to DFAS personnel at a single location.
DFAS	Program Budget Accounting System – Funds Distribution (PBAS-FD)	Payment	Records and controls obligation and expenditure authority for all organizational levels except the allotment holder allowing DOD financial managers to electronically receive and issue funds for the Office of the Secretary of Defense, Army, and Navy.
DFAS	Standard Accounting, Budgeting, and Reporting System (SABRS)	Payment	Standardizes all Marine Corps transactions and provides a transaction driven general ledger in compliance with the U.S. Standard General Ledger Charts of Accounts.
DFAS and DCMA	Mechanization of Contract Administration Services (MOCAS)	Procurement and Payment	Supports the administration and payment of supply and service contracts by contract administration offices, payment offices, procurement offices, funding stations, and consignees.
Air Force	Mobility Inventory Control Accountability System (MICAS)	Inventory control	Provides comprehensive asset control and shelf life management, including receiving, accounting, controlling, tracking, issuing, deploying, and reporting of chemical and biological equipment.
Army	Standard Army Retail Supply System (SARSS-O)	Inventory control	Supports retail supply operations and maintains the accountable record of material received, stored and issued.
Army	Standard Property Book System – Redesign (SPBS-R)	Inventory control	Automates overall property accountability and asset visibility functions, including the creating of master hand receipts and the passing of asset data on item shortages and overages to other Army systems.

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System owner	System name	Process supported	System description
Navy	Shipboard Non-Tactical Automated Data Processing System (SNAP)	Inventory control	Provides numerous applications for shipboard use, including processing of material requirements, requisitions, and receipts; tracking inventory stock location, balances, demand and usage; providing individual custody records; and reconciling requirements, requisition, inventory, and financial data.
Navy	Standard Automated Logistics Tool Set (SALTS)	Inventory control	Provides means to move logistics and administrative data from a single point of entry to databases and data services world-wide, including DLA's SAMMS, Army's Total Asset Visibility system, and Air Force's Air Force Logistics Information File.
Marine Corps	Defense Equipment Management Program	Inventory control	Maintains total asset visibility over chemical and biological protection equipment held for future testing and tracking results using a spreadsheet application.

Key Data Systems Used to Procure, Account, Control, and Pay for Computer Items Using the Purchase Card

This section includes general information describing each of the 19 information systems used to support the procurement, inventory control, and payment processes for computer equipment purchased using the government purchase card.

System owner	System name	Process supported	System description
DFAS	Central Procurement Accounting System (CPAS)	Procurement and Payment	Provides DFAS and Air Force financial service offices with on-line access to current status information of procurement programs, allotments, initiations, commitments, obligations, and disbursements for central procurement appropriations.
DFAS	Computerized Accounts Payable System (CAPS)	Payment	Provides standard installation center level vendor pay system using a personal computer-based application with interfaces with DOD standard procurement, disbursing and accounting systems.
DFAS	Defense Business Management System (DBMS)	Procurement	Supports the major accounting functions of general ledger accounting, budgetary accounting and funds control, job order and cost accounting, accounts receivable and payable, and accounting and managerial reporting for DFAS, DLA depot and supply centers, Defense Contract Audit Agencies, and the Defense Commissary Agencies.
DFAS	Defense Industrial Financial Management System (DIFMS)	Procurement	Provides about 17 Navy, Marine Corps, and Air Force field-level and headquarters-level activities with transaction-driven funds control, accounting for budget execution, and management information, including cash, labor, other cost, material, cost summary, job order and customer order, billing, general ledger accounts, fixed asset accounting, and cost competition data.
DFAS	Electronic Document Management (EDM)	Payment	Converts and stores paper documents such as contracts, invoices, and receiving reports as electronic images providing document imaging, electronic folders, and workflow processing to DFAS personnel at a single location.
DFAS	Vendor Pay Integrated Accounts Payable System (IAPS)	Payment	Provides rapid and timely vendor payments to Air Force vendors by processing commitment transactions electronically to the GAFS; compares invoice, receiving report and contract data to create a payment vouchers; and concurrently passes electronic funds transfer data to both disbursing and accounting systems.
DFAS	Program Budget Accounting System – Funds Distribution (PBAS-FD)	Procurement and Payment	Records and controls obligation and expenditure authority for all organizational levels except the allotment holder allowing DOD financial managers to electronically receive and issue funds for the Office of the Secretary of Defense, Army, and Navy.
DFAS	Standard Accounting, Budgeting, and Reporting System (SABRS)	Payment	Standardizes all Marine Corps transactions and provides a transaction driven general ledger in compliance with the U.S. Standard General Ledger Charts of Accounts.
DFAS	Standard Finance System Redesign – Subsystem 1 (SRD-1)	Payment	Incorporates military pay, travel, accounts payable, accounting, and disbursing functions into an on-line, interactive menu-driven system for DFAS to produce cash payments, vouchers, and reports.

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System owner	System name	Process supported	System description
Navy	Standard Accounting and Reporting System (STARS)	Payment	Consolidates all Department of Navy general fund accounting, contractor and vendor commercial entitlements, transportation payments, and travel payments for the Navy, the Marine Corps, and the Army; and the Navy departmental reporting and funds distribution.
DLA	Defense Property Accountability System (DPAS)	Inventory control	Provides a transaction-driven subsidiary ledger to the general ledger designed to achieve physical and financial control over real and personal property.
Air Force	Automated Business Services System (ABSS)	Procurement	Enables Air Force officials to electronically request assets or services, coordinate approval officials' actions, send electronic documents world-wide, and provide data interface to all standard Air Force accounting and contracting systems.
Air Force	General Accounting and Finance System (GAFS)	Procurement	Provides Air Force a standard accounting system for appropriated funds accommodating the standard appropriation accounting records, such as funding authority, commitments, obligations, and balances of available funds.
Air Force	Information Processing Management System (IPMS)	Inventory control	Provides inventory accountability, configuration management, and life cycle management for Air Force information technology assets, including hardware and software.
Army	Purchase Card Management System (PCMS)	Procurement	Provides Army Materiel Command and Army-Natick users a personal computer web-based system to log and track purchase card requests, obtain required approvals, create timely commitments and obligations, and track and record property and equipment.
Army	Standard Operations and Maintenance, Army Research and Development System (SOMARDS)	Payment	Provides Army a standard accounting and reporting system for reimbursable customer and direct mission funds control data; reporting for labor, reimbursable billings, advances, and general operation expenses; general ledger reporting; and month-end and year-end close and purge processes.
Army	Standard Property Book System – Redesign (SPBS-R)	Inventory control	Automates overall property accountability and asset visibility functions, including the creating of master hand receipts and the passing of asset data on item shortages and overages to other Army systems.
CitiBank	CitiDirect	Payment	Delivers to the Navy and Marine Corp purchase cardholders and approval officials' a web-based reporting and communication tool to log purchases, review and adjust card transactions, and certify account and billing statements.
U.S. Bank	Customer Automation and Reporting Environment (CARE) system	Payment	Delivers to Air Force and Army purchase cardholders' and approval officials' a web-based reporting and communication tool to log card purchases, review and adjust card transactions, and certify account and billing statements.