DOD’S HIGH-RISK AREAS

Efforts to Improve Supply Chain Can Be Enhanced by Linkage to Outcomes, Progress in Transforming Business Operations, and Reexamination of Logistics Governance and Strategy

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DOD's High-Risk Areas. Efforts to Improve Supply Chain Can Be Enhanced by Linkage to Outcomes, Progress in Transforming Business Operations, and Reexamination of Logistics Governance and Strategy
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What GAO Found

The most recent update to DOD’s plan shows that DOD has made progress developing and implementing its supply chain management improvement initiatives. DOD is generally staying on track for implementing its initiatives, although there have been delays in meeting certain milestones. However, the long-term time frames for many of these initiatives present challenges to the department in sustaining progress toward substantially completing their implementation. The plan also lacks outcome-focused performance measures for many individual initiatives and the three focus areas, limiting DOD’s ability to fully demonstrate the results achieved through its plan. Increasing DOD’s focus on outcomes will enable stakeholders to track the interim and long-term success of its initiatives and help DOD determine if it is meeting its goals of more effective and efficient supply chain management.

GAO’s recent work has identified problems related to the three focus areas in DOD’s plan. In the requirements area, the military services are experiencing difficulties estimating acquisition lead times to acquire spare parts for equipment and weapon systems, hindering their ability to efficiently and effectively maintain spare parts inventories for military equipment. Challenges in the asset visibility area include lack of interoperability among information technology systems, problems with container management, and inconsistent application of radio frequency identification technology, which make it difficult to obtain timely and accurate information on assets in theater. In the materiel distribution area, challenges remain in coordinating and consolidating distribution and supply support within a theater.

Improving defense business operations is integral to resolving supply chain management problems. Progress in DOD’s overall approach to business transformation is needed to confront problems in other high-risk areas, including supply chain management. Because of the complexity of business transformation, GAO has stated that DOD needs a Chief Management Officer with significant authority, experience, and a term that would provide sustained leadership and the time to integrate DOD’s overall business transformation efforts. GAO’s work, pending legislation, and other recent studies indicate a consensus that the status quo is no longer acceptable.

GAO’s recent review of joint theater logistics raises concerns about whether DOD can effectively implement this initiative without reexamining fundamental aspects of the department’s logistics governance and strategy. In this respect, joint theater logistics may serve as a microcosm of some of the challenges DOD faces in resolving supply chain management problems. Moreover, GAO recommended in that report that DOD align its approach to joint theater logistics with ongoing actions the department is taking to reform its logistics governance and develop its logistics strategy. Several recent studies of DOD logistics systems have recommended changes to DOD’s organizational structure for providing joint logistics and supply support to military operations.
Mr. Chairman and Members of the Subcommittee:

I am pleased to be here today to discuss the progress made by the Department of Defense (DOD) toward resolving long-standing problems with supply chain management. The availability of spare parts and other critical items that are procured and delivered through DOD’s supply chain network affects the readiness and capabilities of U.S. military forces, and can affect the success of a mission. In addition, the investment of resources in DOD’s supply chains is substantial, amounting to more than $150 billion a year according to DOD, and supply inventory levels have grown by 35 percent from $63.3 billion in fiscal year 2001 to $85.6 billion in fiscal year 2006. DOD also invests billions in information technology systems that support supply chain management and other business operations. Over time, DOD has sought to better integrate its supply chain operations to effectively support military forces and to make its supply chains more efficient from source of supply to point of consumption. However, the challenges to successfully improving management of DOD’s vast and complex supply chain network are formidable, and problems with supply chain management have yet to be fully resolved. Today’s hearing is the third time since 2005 that we have testified before this Subcommittee on supply chain management. Your active involvement has been and will continue to be vital to keeping attention focused on this important aspect of DOD’s business and logistics support operations.

GAO’s audits and evaluations have identified a number of federal programs and operations that are high risk because of their greater vulnerabilities to fraud, waste, abuse, and mismanagement. In recent years, GAO’s high-risk program has increasingly focused on those major programs and operations that need urgent attention and transformation in order to ensure that our government functions in the most economical, efficient, and effective manner possible. We first designated DOD inventory management as a high-risk area in 1990 because of ineffective and inefficient inventory systems and practices. The problems we found—based on a large body of work on the management of military supplies—

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1Part of this growth was caused by inflation. The inflation rate over this period as measured by the Gross Domestic Product Price Index was a little over 13 percent.

included on-hand inventory that was not needed to meet required inventory levels, inadequate controls over items, and cost overruns. We have reported on efforts to address this and other high-risk areas in our biennial updates to our high-risk programs since then. In preparing the 2005 update of the high-risk series, we determined that systemic supply problems extended beyond inventory management to other aspects of the supply chain, including inaccurate supply forecasts, poor asset visibility, and ineffective distribution. We therefore expanded our high-risk designation to include the entirety of “DOD supply chain management.”

Over the years DOD has taken actions toward its goal of integrating and improving supply chain management. For example, it has revised policies and practices aimed at addressing shortcomings identified during Operation Iraqi Freedom. It has implemented recommendations made by our office and other audit organizations regarding specific aspects of its supply chain operations. It has also identified technologies and commercial best practices that could lead to substantial improvements over the long term. Another step has been the development of DOD’s supply chain management improvement plan. In 2005, with the encouragement of the Office of Management and Budget (OMB) and input from our office, DOD developed this plan with the intent of addressing the problems that have prompted us to retain this high-risk designation. (We subsequently refer to this document as the plan.) DOD’s plan lists 10 initiatives aimed at making improvements in three focus areas of supply chain management—requirements forecasting, asset visibility, and materiel distribution.

DOD officials believe the commitment they have demonstrated to resolving supply chain management problems, including developing the plan and making progress implementing initiatives, justifies removing this area from our high-risk list. In December 2006, the Under Secretary formally requested that we consider removing supply chain management from our list of high-risk areas. We decided that notwithstanding positive steps taken by DOD to address problems, supply chain management should remain a high-risk area until DOD can successfully demonstrate improvements in requirements forecasting, asset visibility, and materiel distribution, and we retained this designation in the 2007 biennial update of our high-risk series.3

Today, I would like to provide our perspectives on (1) DOD’s progress in developing and implementing the initiatives in its plan, (2) the results of our recent work relating to the three focus areas covered by the plan, and (3) the integration of supply chain management with efforts to transform and improve defense business operations. Finally, I will address broader issues of logistics governance and strategic planning within DOD. My statement is based on previous GAO reports and analysis, including a report we are releasing today on DOD’s efforts to develop and implement joint theater logistics, one of the initiatives in the plan. In addition, we have met regularly with DOD and OMB staff to obtain updates on DOD’s plan and information on the specific initiatives. We conducted our work in accordance with generally accepted government auditing standards.

The most recent update to the plan shows that DOD has made progress developing and implementing its supply chain management improvement initiatives, but the current performance measures in the plan do not fully demonstrate results. DOD is generally staying on track for implementing its initiatives, although there have been delays in meeting certain milestones. Notwithstanding this overall progress and the commitment of DOD leadership to resolving supply chain problems, the long-term time frames for many of these initiatives present challenges to the department in sustaining progress toward substantially completing their implementation. Moreover, the plan lacks outcome-focused performance measures that could gauge the results of many of the individual improvement initiatives or demonstrate progress in the three focus areas, limiting DOD’s ability to fully demonstrate the results achieved through its plan. Increasing the plan’s focus on measurable outcomes will enable DOD’s internal and external stakeholders, including Congress and OMB, to track the interim and long-term success of DOD’s initiatives and help DOD determine if it is meeting its goals of achieving more effective and efficient supply chain management.

In addition, our recent work has identified continuing problems related to the three focus areas in DOD’s plan.

Summary

In the area of requirements forecasting, the military services are experiencing difficulties estimating the length of time between the initiation of a procurement action and the receipt of spare parts into the supply system for equipment and weapon systems. We also found continuing problems in the Air Force’s inventory management practices, hindering its ability to efficiently and effectively maintain its spare parts inventory for military equipment. Specifically, an average of 52 percent ($1.3 billion) of the Air Force’s secondary on-order inventory was not needed to support on-order requirements. Further, about 65 percent ($18.7 billion) of on-hand inventory was not needed to support required inventory levels. We calculated that it costs the Air Force from $15 million to $30 million annually to store its unneeded items. Problems also continue in managing prepositioned stocks.

Our work in the area of asset visibility has indicated numerous challenges, from lack of interoperability among information technology systems to problems with container management. Limitations in asset visibility capabilities make it difficult to obtain timely and accurate information on the assets that are present in the theater of operations.

With respect to materiel distribution, we have found that challenges remain in coordinating and consolidating distribution and supply support within a theater. For example, DOD is establishing separate organizations to coordinate surface transportation and lacks a single organization with authority to integrate and synchronize surface deployment and distribution movements. One key challenge has been establishing an effective mechanism that would enable a joint force commander to exercise appropriate command and control over transportation and other logistics assets in the theater.

Further, transforming and improving defense business operations are integral to resolving supply chain management problems. As we have previously stated, progress in DOD’s overall approach to business transformation is needed to confront problems in other high-risk areas, including supply chain management. Because of the complexity and long-term nature of business transformation, we have stated that DOD needs a Chief Management Officer with significant authority, experience, and a term that would provide sustained leadership and the time to integrate DOD’s overall business transformation efforts. Our work, pending legislation, and other recent studies indicate a consensus that the status quo is no longer acceptable. In addition to business transformation, we have identified two other DOD high-risk areas that are closely linked with supply chain management—modernizing business systems and improving financial management.
Our recent review of joint theater logistics raises concerns about whether DOD can effectively implement this initiative without reexamining fundamental aspects of the department’s logistics governance and strategy. In this respect, joint theater logistics may serve as a microcosm of some of the challenges DOD faces in resolving supply chain management problems. We found during our review that DOD has not developed a coordinated and comprehensive management approach to guide and oversee implementation of joint theater logistics across the department. Moreover, we recommended in that report that DOD align its approach to joint theater logistics with ongoing actions the department is taking to reform its logistics governance and develop its logistics strategy. Regarding logistics governance, DOD has been testing a new approach to managing joint capabilities as a portfolio, but key decisions are still to be made on how to implement this approach. In addition, DOD has plans to develop an overarching logistics strategy but has delayed completion of this strategy until sometime next year. The diffused organization of DOD’s logistics operations, including separate funding and management of resources and systems, complicates DOD’s ability to adopt a coordinated and comprehensive approach. Several recent studies of DOD’s logistics system have recommended changes to DOD’s organizational structure for providing joint logistics and supply support to military operations.

Background

DOD relies on a number of individual processes and activities, known collectively as supply chain management, to purchase, produce, and deliver items and services to military forces. The department relies on working capital (revolving) funds maintained by the defense and service logistics agencies to finance the flow of these items to the forces. Working capital funds allow these agencies to purchase needed items from suppliers. Military units then order items from the logistics agencies and pay for them with annually appropriated operations and maintenance funds when the requested items—either from inventory or manufacturers—are delivered to the units.

The Under Secretary of Defense (Acquisition, Technology, and Logistics) has been designated by the Secretary of Defense as the department’s Defense Logistics Executive, with authority to address logistics and supply chain issues. Officials within the Office of the Assistant Deputy Under Secretary of Defense for Supply Chain Integration completed the first iteration of the plan in July 2005 and have updated it several times since then based on information provided by designated lead proponents for the individual initiatives. DOD has shared its plan externally with Congress, OMB, and our office. OMB has characterized the plan as a model for other
federal agencies to use in developing their own plans to address their high-risk areas.

The plan has three focus areas: requirements forecasting, asset visibility, and materiel distribution—issues that we have identified based on GAO audits since 1995 as critical to improving DOD supply chain management. Accurately forecasted supply requirements are a key first step in buying, storing, positioning, and shipping items that the warfighter needs. DOD describes asset visibility as the ability to provide timely and accurate information on the location, quantity, condition, movement, and status of supplies and the ability to act on this information. Distribution is the process for synchronizing all elements of the logistics system to deliver the “right things” to the “right place” at the “right time” to support the warfighter. Our prior work has identified problems in these three focus areas, as well as other aspects of supply chain management.

DOD’s plan identifies joint theater logistics as an initiative that will improve both asset visibility and materiel distribution. Joint theater logistics is intended to enhance the ability of a joint force commander to direct various logistics functions, including distribution and supply support activities, across the theater and, for several years, has been part of DOD’s planned transformation of logistics capabilities. Joint theater logistics is one of seven future logistics capabilities that DOD has grouped under “focused logistics.” DOD has broadly defined joint theater logistics as an adaptive ability to anticipate and respond to emerging theater logistics and support requirements.

In general, when legislative and agency actions result in significant and sustainable progress toward resolving a high-risk problem, we remove the high-risk designation. Key determinants include a demonstrated strong commitment to and top leadership support for addressing problems, the capacity to do so, a corrective action plan, and demonstrated progress in implementing corrective measures. From 1990 through 2007, we removed 18 areas from the high-risk list. Our decisions on removing supply chain management from the high-risk list will be guided by whether DOD (1) sustains top leadership commitment and long-term institutional support for the plan; (2) obtains necessary resource commitments from

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5The criteria for removing a high-risk designation are contained in GAO, Determining Performance and Accountability Challenges and High Risks, GAO-01-159SP (Washington, D.C.: November 2000).
the military services, the Defense Logistics Agency, and other organizations; (3) makes substantial progress implementing improvement initiatives across the department; (4) establishes a program to demonstrate progress and validate the effectiveness of the initiatives; and (5) completes the development of a comprehensive, integrated strategy for guiding supply chain management improvement efforts across the department.

The most recent update to the plan in May 2007 shows that DOD, over the past year, has made progress in developing and implementing its improvement initiatives. We noted this progress in the January 2007 update of our high-risk series. Specific examples of progress made include the following:

DOD has established joint deployment distribution operations centers in each geographic combatant command. In early 2004, DOD established the first of these operations centers in Kuwait, under U.S. Central Command, after distribution problems arose during the initial stages of Operation Iraqi Freedom. DOD has since expanded this organization to its other geographic combatant commands. These operations centers can help joint force commanders synchronize the arrival of supplies into a theater and assist in other aspects of distribution and supply support. They are designed to incorporate representatives from DOD components, such as U.S. Transportation Command, the Defense Logistics Agency, and the military services, who can provide a knowledgeable connection to logistics supply centers in the United States and facilitate the distribution of supplies to the theater. The expansion of these operations centers to all the geographic commands was based on the success of the first operations center in Kuwait, which has been credited with improving the management of supplies moving across the distribution system and achieving cost savings.⁶

⁶For example, U.S. Transportation Command officials said that the operations center was responsible for shifting from the use of airlift to sealift to transport supplies, which reduces costly airlift requirements and frees up airlift capacity; coordinating the movement of personnel from their point of origin to final destination rather than through intermediate locations with time-consuming layovers (a concept referred to as single ticket); and improving distribution management by facilitating the use of pure-packed pallets and containers, developing a container management plan, and improving the return of Army materiel from the theater. According to data provided by U.S. Transportation Command, the activities of this joint deployment distribution operations center resulted in total cost avoidance and savings of $343 million between fiscal years 2004 and 2007.
DOD has reported initial success with an initiative aimed at streamlining the storage and distribution of common items for multiple military service locations through the use of Defense Logistics Agency hubs. The objectives of this initiative, called joint regional inventory and material management, include eliminating duplicate materiel handling and inventory layers. DOD has met key milestones in this initiative and recently completed the pilot program in Hawaii. U.S. Pacific Command officials stated that they had reduced redundant service-managed inventories, the number of times they handle parts, and customer wait times over the course of the pilot. They estimated that the services had reduced their inventory levels by more than $10 million. In March 2007, the Defense Logistics Agency was tasked to be the lead proponent for continued worldwide implementation of joint regional inventory and material management.

DOD also made progress toward improving transportation management of military freight. Before the end of this fiscal year, U.S. Transportation Command plans to award a contract to a third-party logistics provider, or 3PL, to coordinate the movement of freight shipments within the continental United States. This effort, called the defense transportation coordination initiative, is aimed at improving the reliability, predictability, and efficiency of moving freight among DOD’s depots, logistics centers, and field activities. In a recent report on this initiative, we stated that DOD had taken numerous actions to incorporate the lessons learned from a prior prototype program and, moreover, had taken positive steps to adopt best practices employed by other public and private organizations to transform their culture. Still, the long-term success of this effort remains uncertain given the challenges in undertaking organizational transformation and because the program is still in its early stages.

Despite the progress indicated by the development and implementation of these initiatives, the recent update of DOD’s plan indicates some delays in achieving certain milestones. For example, the radio frequency identification (RFID) initiative experienced a slippage from December 2006 to September 2007 in its milestone to implement passive RFID at the first 25 percent of Defense Logistics Agency’s distribution centers located outside the continental United States. This milestone was adjusted based

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8RFID consists of electronic tags that are attached to equipment and supplies being shipped from one location to another, enabling shipment tracking.
on lessons learned from the implementation of RFID at sites within the continental United States. Also, the item unique identification initiative\(^9\) experienced a slippage of a year, from January 2007 to January 2008, for the milestone on demonstrating integration with international entities, because required ratification from the North Atlantic Treaty Organization was delayed. Schedule delays such as these may be expected given the long-standing nature of the problems being addressed, the complexities of the initiatives, and the involvement of multiple organizations. Furthermore, some of these initiatives are in the early stages of implementation, with full implementation several years away. The long-term time frames for many of these initiatives present challenges to the department in sustaining progress toward substantially completing their implementation.

Since the last hearing before this Subcommittee in July 2006, we have not seen significant changes in how DOD proposes to measure the impact of its initiatives in its plan. The plan, as before, contains four performance metrics—backorders, customer wait time, on-time orders, and logistics response time.\(^10\) While these four measures capture broad aspects of DOD’s supply chain performance, they can be affected by variables other than the initiatives themselves. For example, natural disasters, wartime surges in requirements, or disruption in the distribution process could each result in increased backorders, longer customer wait time, fewer on-time orders, and slowed response time, regardless of DOD’s initiatives. Consequently, changes in these high-level metrics might not be directly attributable to the initiatives in the plan. While it may take years before the results of programs become apparent, intermediate metrics can be used to provide information on interim results and show progress toward intended results. In addition, when program results could be influenced by external factors, intermediate metrics can be used to identify the program’s discrete contribution to the specific result.

\(9\) Item unique identification provides for marking of personal property items with a set of globally unique data items to help DOD value and track items throughout their life cycle.

\(10\) Backorders are the number of orders held in an unfilled status pending receipt of additional parts or equipment through procurement or repair. Customer wait time measures the number of days between the issuance of a customer order and satisfaction of that order. On-time orders is the percentage of orders that are on time according to DOD’s established delivery standards. Logistics response time refers to the number of days to fulfill an order placed on the wholesale level of supply from the date a requisition is generated until the materiel is received by the retail supply activity.
As we noted last July, the results of DOD’s initiatives would be more apparent if DOD applied more outcome-oriented performance metrics for many of the individual initiatives and for the three focus areas. Outcome-oriented performance metrics show results or outcomes related to an initiative or program in terms of effectiveness, efficiency, impact, or all of these. Since last July, DOD has not added new outcome-focused performance metrics to its plan. DOD also continues to lack cost metrics that might show efficiencies gained through these supply chain efforts, either at the initiative level or overall. In total, DOD’s plan identifies a need to develop outcome-focused performance metrics for 6 initiatives, and 9 out of 10 initiatives lack cost metrics. We recommended in January that DOD develop, implement, and monitor outcome-focused performance and cost metrics for all the individual initiatives in the plan as well as for the plan’s focus areas of requirements forecasting, asset visibility, and materiel distribution. In response to our recommendation, DOD asserted that it had developed and implemented outcome-focused performance and cost metrics for logistics across the department, but it also acknowledged that more work needed to be done to link the outcome metrics to the initiatives in the plan as well as for the focus areas. DOD stated that these linkages will be completed as part of full implementation of each initiative.

Recent GAO Reviews Have Found That Systemic Supply Chain Management Problems Continue

Our recent work has identified continued systemic weakness in aspects of DOD’s supply chain management. I will briefly highlight some of the results from these reviews, structured around the three focus areas covered by DOD’s plan.

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Requirements Forecasting Problems Exist in Managing Spare Parts and Prepositioned Stocks

In the area of requirements forecasting, the military services are experiencing difficulties estimating acquisition lead times to acquire spare parts for equipment and weapon systems. Effective processes that identify and manage acquisition lead times are of critical importance to maintaining cost-effective inventories, budgeting, and having materiel available when it is needed. In March 2007, we reported that 44 percent of the services’ lead time estimates varied either earlier or later than the actual lead times by at least 90 days. Overestimates and underestimates of acquisition lead time contribute to inefficient use of funds and potential shortages or excesses of spare parts. We recommended a number of actions DOD should take to improve the accuracy and strengthen the management of lead times. For example, we made specific recommendations directed toward the Army, the Air Force, the Navy, and the Defense Logistics Agency with the intent of improving their accuracy in setting acquisition lead times. DOD mostly concurred with our recommendations.

In a separate review of the Air Force’s inventory management practices, we found continuing problems hindering its ability to efficiently and effectively maintain its spare parts inventory for military equipment. From fiscal years 2002 through 2005, more than half of the Air Force’s secondary inventory (spare parts), worth an average of $31.4 billion annually, was not needed to support required on-order and on-hand inventory levels. We found an average of 52 percent ($1.3 billion) of the Air Force’s secondary on-order inventory was not needed to support on-order requirements. This unneeded on-order inventory indicates that the Air Force did not cancel orders or deobligate funds for items that were not needed to support requirements. When the Air Force buys unneeded items, it is obligating funds unnecessarily, which could lead to not having sufficient

12 Acquisition lead time, also known as procurement lead time, measures the length of time between the initiation of a procurement action and the receipt of items into the supply system.


15 Secondary inventory items include reparable components; subsystems; and assemblies other than major end items (such as aircraft), consumable repair parts, bulk items and materiel, subsistence, and expendable end items, including clothing and other personal gear. Inventory that is not in DOD’s possession but for which contracts have been awarded or funds have been committed is considered to be on order.
funds to purchase needed items. The Air Force has continued to purchase unneeded inventory because its policies do not provide incentives—such as requiring contract termination review for all unneeded on-order inventory or reducing the funding available for the Air Force Materiel Command by an amount up to the value of the Air Force’s on-order inventory that is not needed to support requirements—to reduce the amount of inventory on order that is not needed to support requirements. In addition, although the percentage of the Air Force’s on-hand inventory was reduced by 2.7 percent during these years, about 65 percent ($18.7 billion) of this inventory was not needed to support required inventory levels. We calculated that it costs the Air Force from $15 million to $30 million annually to store its unneeded items. We recommended that the Air Force improve its policies regarding on-order inventory, revalidate the need to retain items that are not needed to meet inventory requirements and for which there is no recurring demand, and take other actions to improve accountability for, and management of, its secondary inventory. DOD generally concurred with our recommendations.

Another area of continuing concern has been the stocks maintained in the Army’s prepositioning programs. Prepositioning is one of three ways, along with airlift and sealift, that the U.S. military can deliver equipment and supplies to field combat-ready forces. The Army drew heavily from its prepositioned stocks to support Operations Iraqi Freedom and Enduring Freedom, and these sustained operations have taken a toll on the condition and readiness of military equipment. In February 2007, we reported the Army was changing its overall prepositioning strategy and, in doing so, faced major strategic and management challenges. One of these challenges was that despite recent efforts to improve requirements setting, the Army had not yet determined reliable requirements for secondary items and operational project stocks. Also, the Army does not systematically measure or report readiness for the secondary item and operational project programs. Without sound requirements or reporting mechanisms, the Army cannot reliably assess the impact of any shortfalls, determine the readiness of its programs, or make informed investment decisions.

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17Operational project stocks include items not typically part of unit equipment, such as chemical defense equipment, pipeline systems, mortuary units, and bare base sets for housing soldiers in austere environments.
decisions about them. We recommended that the Army develop an implementation plan that, among other things, completes ongoing reevaluation of the secondary item and project stock requirements as well as establishes systematic readiness measurement and reporting of secondary items and operational project stock programs. DOD concurred with this recommendation.

Effective Management of Supplies Is Hindered by Problems in Achieving Asset Visibility

Despite the benefits attributed to the joint deployment distribution operations center in Kuwait, effective management of supply distribution across the theater has been hindered by ongoing problems in achieving asset visibility. Senior military commanders in Kuwait attributed these problems to a lack of interoperability among information technology systems that makes it difficult to obtain timely, accurate information on assets in the theater.\(^\text{18}\) We have previously reported that the defense logistics systems used by various components to order, track, and account for supplies are not well integrated and do not provide the information needed to effectively manage theater distribution and provide asset visibility.\(^\text{19}\) Officials told us their staff must use manual work-arounds to overcome the problems caused by noninteroperable information systems and estimated that their staff spend half their time pulling data from information systems, e-mailing it around for validation or coordination, consolidating it on a spreadsheet, and then analyzing it to make management decisions. In January 2007, a joint assessment conducted by several DOD components at Camp Arifjan, Kuwait, found that separate movement control battalions in Kuwait and Iraq use both automated and handwritten transportation movement requests to track air and ground movements and must consolidate manual and automated data into spreadsheets in order to capture the total theater movement picture. Neither movement battalion has total visibility over what is occurring in both Kuwait and Iraq nor do they have total visibility of the surface transportation resources necessary to optimize the distribution of resources.

\(^\text{18}\)Interoperability refers to the ability of different systems to communicate effectively, including sharing information.

In our review of joint theater logistics, we also found continuing problems with container management that hinder asset visibility and impede DOD’s ability to effectively manage logistics operations and costs, although improvements had been made since we last reported on this issue in 2003.\(^{20}\) Some challenges that DOD faces with container management include the application of RFID on containers in the supply chain, compliance with container management processes, and the return of commercial containers to maritime carriers.

In 2004, the Under Secretary of Defense (Acquisition, Technology, and Logistics) directed the use of active RFID on all consolidated shipments moving to, from, or between overseas locations in order to provide global in-transit visibility, and U.S. Central Command has emphasized the need to use this technology to improve asset visibility in Iraq and Afghanistan. However, according to U.S. Central Command officials, DOD continues to struggle with the application of RFID in the theater supply chain because of problems such as containers shipped without RFID tags or with tags that are broken, tags with incorrect information, or tags that are rewritten but not cross-referenced to the original shipping information. Noncompliance with container management processes established by U.S. Central Command can also limit asset visibility. For example, the Army’s system has not been able to effectively track containers as they pass through distribution channels, significantly hampering asset visibility in theater because tagged containers can become “lost” in theater, with no one able to track the location of the container or its contents. In addition, if the container is commercially owned and not returned to the carrier within a specified time period, detention charges begin accumulating.

During our review of joint theater logistics we also found that U.S. Transportation Command and the Military Surface Deployment and Distribution Command, to improve management and accountability over containers and to address the growing detention charges, developed a theater container management process and established the container management element—a unit responsible for tracking and providing management oversight of containers in the theater. In addition, the Army decided to purchase, or “buy out,” commercial containers to reduce monthly detention charges. Container management element officials told

us that through a combination of container buyouts and increased oversight, detention charges decreased from approximately $10.7 million per month in December 2005 to $3.7 million per month in October 2006. However, although DOD has been able to reduce monthly detention charges on commercial containers, it is still experiencing problems with retaining visibility over containers, and its problem with commercial container detention charges is shifting from Iraq to Afghanistan.

In addition, the Army continues to experience problems in developing and implementing system initiatives affecting asset visibility. For example, the Logistics Management Program, one of the Army’s major business system modernization efforts intended to manage its inventory and depot maintenance operations, has continued to experience problems with accurately recognizing revenue and billing customers, and the accuracy of its financial reports continues to be questionable. If information contained in asset accountability systems is not accurate, complete, and timely, DOD’s day-to-day operations could be adversely affected. As of September 30, 2006, the Army reported that approximately $452 million had been obligated for this system effort and estimates that it will invest at least another $895 million in this program. Also, its schedule to reach full operational capability has slipped from fiscal year 2005 to fiscal year 2010.\textsuperscript{21} We have recently reviewed the Army’s progress in achieving asset visibility and expect to issue our report by the end of this month.\textsuperscript{22}

Challenges Remain in Coordinating and Consolidating Distribution and Supply Support within a Theater

In our review of joint theater logistics, we found that DOD components have made progress developing and implementing joint theater logistics initiatives in the areas of distribution and supply support; however, the department faces a number of challenges that hinder its ability to fully realize the benefits of these efforts. Unless DOD successfully addresses these challenges, the initiatives are not likely to significantly improve the ability of a joint force commander to harness the diffuse logistics resources and systems that exist within the department and effectively and efficiently direct logistics functions, including distribution and supply support activities, across the theater of operations to accomplish an assigned mission.

\textsuperscript{21}Full operational capability means that the system has been deployed to all intended locations.

\textsuperscript{22}We conducted this engagement in response to a request from the Subcommittee on Readiness and Management Support, Senate Armed Services Committee.
For example, initiatives to improve the coordination of surface transportation assets—mainly trucks—in a theater of operations face challenges such as potential duplication of responsibilities, the unavailability of information technology tools, and unclear lines of command and control. According to a 2005 RAND Corporation study, during the initial phase of Operation Iraqi Freedom there was no single organization deployed in theater with the authority to rebalance transportation assets across the theater and integrate and synchronize the surface deployment and distribution movements of materiel in support of the commander’s priorities. As part of its modular transformation, the Army is creating theater and expeditionary sustainment commands that are aimed in part at centralizing control over Army surface transportation assets within a theater of operations. In a separate initiative, U.S. Transportation Command created a new organization, the director of mobility forces-surface, to integrate surface deployment and distribution priorities set by the joint force commander.

Army officials raised concerns about whether the theater and expeditionary sustainment commands would have the information technology tools and personnel necessary to effectively and efficiently carry out their missions. They said that these commands were designed to be smaller than their predecessors, based on an assumption that certain information technology tools would be available to enable the commands to operate with fewer personnel. However, some of these information technology tools—such as the next generation Mobile Tracking System, Battle Command Sustainment Support System, and Transportation Coordinator’s Automated Information for Movements System II—have experienced problems during their development that have limited their capability or have delayed their fielding. According to Army officials, the shortcomings in available information tools have resulted in the need for additional staff in the theater and expeditionary sustainment commands and have required the commands to use manual, ad hoc techniques, which


24Theater sustainment commands provide the Army a single headquarters responsible for operational command and control of logistics operations throughout the theater. Expeditionary sustainment commands, a forward extension of the theater sustainment commands, have a primary role of managing regional logistics operations in support of the joint task force commander.
are cumbersome and manpower intensive, to validate, coordinate, and analyze data for decision making.

The U.S. Transportation Command-led efforts to establish the director of mobility forces-surface have also faced implementation challenges. The initial assessment of the director of mobility forces-surface pilot in Kuwait by U.S. Transportation Command and U.S. Central Command indicated that the initiative faces a number of challenges related to command and control, availability of information technology tools, securing personnel with the expertise and knowledge to use the information technology tools that are available, and potential duplication of responsibilities with other Army organizations. U.S. Central Command discontinued the pilot in May 2007 until some of these issues were resolved. In addition, the Army reviewed more than 100 proposed responsibilities of the director of mobility forces-surface and found that most of these responsibilities are already covered by the Army’s theater and expeditionary sustainment commands or other commands.

DOD also has developed initiatives to consolidate and improve storage and shipping of materiel, including node management and deployable depot, joint regional inventory and material management, and theater consolidation and shipping point, but such efforts have been implemented on a limited scale. During our visits to Kuwait, we found that the Defense Logistics Agency and the Army were operating separate facilities that have the potential for consolidation, which could result in more efficient use of resources. We discussed this issue with senior U.S. military officials in Kuwait and with Defense Logistics Agency officials. Following these discussions and the completion of our fieldwork, the Defense Logistics Agency assessed ways to improve theater distribution and made recommendations to consolidate and relocate existing operations. Specifically, in April 2007, the Defense Logistics Agency study team recommended terminating the theater consolidation and shipping point contract, assuming these functions at the defense distribution depot,

25Node management and deployable depot is a Defense Logistics Agency initiative to develop a small-scale, rapidly deployable distribution center that has the capability to provide consolidated shipping, receiving, cross-docking, storage, communication, and order processing. Joint regional inventory and material management, identified as one of the 10 initiatives in the plan, was discussed earlier in this statement. Theater consolidation and shipping points is an effort by the Defense Logistics Agency, in coordination with the Army and combatant commands, to improve the efficiency and interoperability of materiel consolidation and shipping activities.
and drawing down inventory and operations at the Army general support warehouse at Camp Arifjan.

Finally, various options have emerged for improving the ability of a joint force commander to exercise command and control over joint theater logistics functions. U.S. Joint Forces Command is coordinating the joint experimental deployment and support initiative, whose objective is to experiment with a range of command and control options that can provide logistics coordination, integration, and synchronization to meet the combatant commander’s priorities. The initiative builds upon DOD’s joint deployment distribution operations center concept and progresses along a continuum to include more robust organizational options. However, the military services have raised concerns about how their own roles and responsibilities for providing logistics support might be affected and have opposed expansion of the most robust command and control option that has emerged—known as the joint force support component command.

Our discussions with officials from the combatant commands and the military services indicated that there are unresolved issues related to exercising joint command and control over logistics functions in a theater of operations. A number of officials had concerns about how organizations such as the joint force support component command would be staffed and what roles and authorities it would have. Specifically, they mentioned statutory requirements for logistics support, directive authority for logistics, and operational and financial considerations. The services expressed concerns about mandating that they provide staff to the joint force support component command, while also fulfilling their Title 10 responsibilities to man, train, and equip their forces.Officials from military service components in the geographic combatant commands raised the issue of having a service component take direction from a separate component command at the same level, rather than from a higher-level command, and they were resistant to losing personnel to such an organization because the service component commands still have tactical logistics responsibilities to fulfill. Some military service officials raised questions about the effectiveness of a joint force support component command that lacked an ability to exercise directive authority for logistics. This authority gives the combatant commander the ability to

26Various provisions of Title 10, U.S. Code establish responsibilities and authorities for supplying and equipping the armed forces. See 10 U.S.C. §§ 3013, 3062, 5013, 5062, 5063, 8013, and 8062.
shift logistics resources within the theater in order to accomplish a mission.\textsuperscript{27} Officials we interviewed did not believe this authority could be delegated below the level of a joint force commander or service component commander\textsuperscript{28} to an entity such as the joint force support component command. Thus, they questioned how the joint force support component command differs from other logistics command and control organizations if the organization can make recommendations to the joint force commander but not actually direct the transfer of assets across the service components, known as cross-leveling. Readiness and financial considerations related to exercising directive authority for logistics include the military operational risks and trade-offs associated with cross-leveling. Assets diverted from one unit to support another unit may affect the giving organization’s ability to conduct a future operation, and officials raised concerns that logisticians in a separate logistics command may not fully understand the impact of cross-leveling on the next military mission. Additionally, because the services obtain funding for their own assets, several officials told us that some form of financial reconciliation must be considered when exercising directive authority for logistics.

DOD spends billions of dollars to sustain key business operations intended to support the warfighter, including systems and processes related to the supply chain and other business areas. We have reported on inefficiencies in DOD’s business operations, such as the lack of sustained leadership and a comprehensive, integrated, and enterprisewide business plan. Moreover, at a time of increasing military operations and growing fiscal constraints, billions of dollars have been wasted annually because of the lack of adequate transparency and appropriate accountability across DOD’s business areas.

As we have previously stated, progress in DOD’s overall approach to business transformation is needed to confront problems in other high-risk

\textsuperscript{27}Under 10 U.S.C. §164, unless otherwise directed by the President or the Secretary of Defense, the authority, direction, and control of the commander of a combatant command with respect to the commands and forces assigned to that command include giving authoritative direction to subordinate commands and forces necessary to carry out missions assigned to the command, including authoritative direction over all aspects of military operations, joint training, and logistics.

areas, including supply chain management. Because of the complexity and long-term nature of business transformation, we have stated that DOD needs a Chief Management Officer with significant authority, experience, and a term that would provide sustained leadership and the time to integrate DOD’s overall business transformation efforts. Without formally designating responsibility and accountability for results, reconciling competing priorities among various organizations and prioritizing investments will be difficult and could impede the department’s progress in addressing deficiencies in key business areas. Based on our long-standing body of work, pending legislative language, and the results of studies completed by the Defense Business Board and the Institute for Defense Analysis, there is a clear consensus that the department needs a Chief Management Officer and that the status quo is no longer acceptable.

The two other DOD high-risk areas that are most closely linked with supply chain management are modernizing business systems and improving financial management. Successful resolution of supply chain management problems will require investment in needed information technology. The DOD systems environment that supports these operations is overly complex and error prone, and is characterized by little standardization across the department, multiple systems performing the same tasks, the same data stored in multiple systems, and the need for data to be entered manually into multiple systems. Modernized business systems are essential to the department’s effort to address its supply chain management issues. In its plan, DOD recognizes that achieving success in supply chain management depends on developing interoperable systems that can share critical supply data. One of the initiatives included in the plan is business system modernization, an effort that is being led by DOD’s Business Transformation Agency and that includes achieving materiel visibility through systems modernization as an enterprisewide priority.

Regarding financial management, we have repeatedly reported that weaknesses in business management systems, processes, and internal controls not only adversely affect the reliability of reported financial data, but also the management of DOD operations. Such weaknesses have adversely affected the ability of DOD to control costs, ensure basic accountability, anticipate future costs and claims on the budget, measure

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29. The other high-risk areas under DOD’s approach to business transformation are business systems modernization, the personnel security clearance program, support infrastructure management, financial management, and weapon systems acquisition.
performance, maintain funds control, and prevent fraud. In 2005, DOD issued its Financial Improvement and Audit Readiness Plan, which is intended to provide DOD components with a road map for resolving problems affecting the accuracy, reliability, and timelines of financial information and obtaining clean financial statement audit opinions. However, tangible evidence of improvements in financial management remains limited, and DOD recognizes that it will take several years to implement the systems, processes, and other improvements needed to address its financial management challenges.

Our recent review of joint theater logistics raises concerns about whether DOD can effectively implement this initiative without reexamining fundamental aspects of the department’s logistics governance and strategy. In this respect, joint theater logistics may serve as a microcosm of some of the challenges DOD faces in resolving supply chain management problems. We found that DOD has not developed a coordinated and comprehensive management approach to guide and oversee implementation of joint theater logistics across the department. Efforts to develop and implement joint theater logistics initiatives have been fragmented among various DOD components largely because of a lack of specific goals and strategies, accountability for achieving results, and outcome-oriented performance measures—key principles of sound management. While DOD has broadly defined joint theater logistics as an adaptive ability to anticipate and respond to emerging theater logistics and support requirements, it has not developed specific goals and strategies linked to this vision. In addition, DOD has not assigned accountability for achieving results under joint theater logistics and has not developed outcome-oriented performance measures that would enable the department to know whether its efforts are fully and effectively achieving a joint theater logistics capability. Without a coordinated and comprehensive approach to managing joint theater logistics, DOD lacks assurance that it is on the right path toward achieving this capability or that individual initiatives will collectively address gaps in logistics capabilities. Further, DOD will have difficulty achieving the desired improvements in distribution and asset visibility associated with joint theater logistics as portrayed in the plan.

Based on our review, we recommended that DOD develop and implement a coordinated and comprehensive management approach to guide and oversee efforts across the department to improve distribution and supply support for the U.S. forces in a joint theater. This approach should encompass sound management principles, including developing specific
strategies and goals, assigning accountability for achieving results, and using outcome-oriented performance measures. Moreover, in that report we recommended that DOD align its approach to joint theater logistics with ongoing actions the department is taking to reform its logistics governance and strategy, which are discussed below. In considering options for implementing this recommendation, we stated that DOD should determine whether any changes should be made to DOD’s organizational structure and control of resources for joint logistics support, and identify the steps needed to make these changes, including changes to existing laws, such as Title 10. DOD concurred with our recommendation.

Regarding logistics governance, DOD has been testing a new approach to managing joint capabilities as a portfolio. In September 2006, the Deputy Secretary of Defense selected joint logistics as one of four capability areas for testing capabilities portfolio management. These experiments were initiated in response to the 2006 Quadrennial Defense Review, which emphasized DOD’s need to build on capabilities-based planning and management. According to DOD officials, the purpose of this test is to determine if DOD can make better leadership decisions by managing a portfolio of capabilities instead of managing systems and capabilities individually. Thus, this portfolio test is intended to enable senior leaders to consider trade-offs across previously stovepiped areas and to better understand the implications of investment decisions across competing priorities. Specifically in the joint logistics area, the portfolio includes all capabilities required to project and sustain joint force operations, including supply chain operations. While DOD officials told us the initial results of the test have been completed and have shown that portfolio management is an effective means for managing capabilities, they said that decisions had not yet been made on how to implement this new governance approach.

The decisions DOD makes on capabilities portfolio management will also influence the development of its logistics strategy. In our prior work, we have noted that DOD has undertaken various efforts over the years to

\footnote{DOD has identified other actions in addition to portfolio management for improving DOD governance. For example, DOD is studying ways to establish better strategic direction and exploring options for DOD capital resource allocation and funding stability.}

\footnote{The other three test cases are joint command and control, joint net-centric operations, and battlespace awareness.}
identify, and plan for, future logistics needs, but it has lacked an overarching, consistent logistics strategy. Last year, the department began to develop a “to be” road map to guide future logistics programs and initiatives. DOD officials described the “to be” road map as portraying where the department is headed in the logistics area and how it will get there; monitoring progress toward achieving its objectives; and institutionalizing a continuous assessment process that links ongoing capability development, program reviews, and budgeting. According to DOD officials, the initiatives in the plan will be incorporated into the “to be” road map. At this time last year, the first edition of the “to be” road map was scheduled for completion in February 2007, in conjunction with the submission of the President’s Budget for Fiscal Year 2008, with annual updates planned. However, DOD subsequently put the “to be” road map on hold pending the completion of the capabilities portfolio management test. DOD officials have told us that the “to be” road map is now scheduled to be completed in summer 2008. In January, we recommended that DOD improve its ability to guide logistics programs and initiatives across the department and to demonstrate the effectiveness, efficiency, and impact of its efforts to resolve supply chain management problems by completing the development of a comprehensive, integrated logistics strategy that is aligned with other defense business transformation efforts. DOD concurred with our recommendation.

In reviewing DOD’s approach to developing and implementing joint theater logistics initiatives, we found that the diffused organization of DOD’s logistics operations, including separate funding and management of resources and systems, complicates DOD’s ability to adopt a coordinated and comprehensive approach. Several recent studies of DOD logistics system have reached similar conclusions. Since 2003, a number of studies have recommended changes to DOD’s organizational structure for providing joint logistics and supply support to military operations. Some of these organizations have noted that control over resources is a critical issue to be addressed. For example, the Defense Science Board recommended creation of a joint logistics command that would combine the missions of U.S. Transportation Command, the Defense Logistics Agency, and service logistics commands. The Center for Strategic and International Studies also suggested the creation of a departmentwide logistics command responsible for end-to-end supply chain operations.

\[\text{\footnotesize GAO-07-234.}\]

\[\text{\footnotesize For a listing of these studies and their recommendations, see GAO-07-234.}\]
Regarding resource allocation, this study further stated that resources should be organized, managed, and budgeted largely along military service lines, but in those instances where joint capability needs are not being met by the services, the Secretary must turn to joint processes and entities. The Lexington Institute, which also recommended creation of a U.S. logistics command at the four-star level, concluded that Title 10 may need to be amended in order to create this command. The Lexington Institute also concluded that existing funding mechanisms act as disincentives for joint logistics transformation and interoperability. The Defense Business Practice Implementation Board, while not agreeing with the idea of combining U.S. Transportation Command and the Defense Logistics Agency, recommended that DOD elevate leadership for supply chain integration by designating a new under secretary of defense who would have authority to direct integration activities, including control over budget decisions affecting these two components and the military services. While we noted that transformational changes such as those proposed by these organizations may not be possible without amending existing laws, the scope of our joint theater logistics review did not include an assessment of these proposals or what changes, if any, would require congressional action.

Also contributing to coordination problems in the area of supply chain management have been difficulties in clearly defining the responsibilities and authorities of defense components that have a role in supply chain operations. For example, although the Secretary of Defense in 2003 designated the Commander, U.S. Transportation Command, as DOD’s distribution process owner—with responsibilities for overseeing the overall effectiveness, efficiency, and alignment of DOD-wide distribution activities—DOD has yet to issue a directive defining the process owner’s authority, accountability, resources, and responsibility.\textsuperscript{34} We have recommended that DOD enhance its ability to take a more coordinated approach to improving the supply distribution system by, among other things, clarifying the scope of responsibilities, accountability, and authority between the distribution process owner and other

\textsuperscript{34}In May 2006, the Deputy Secretary of Defense redesignated the Commander, U.S. Transportation Command as DOD’s distribution process owner. Under this redesignation, the mission of the distribution process owner is to oversee the overall effectiveness, efficiency, and alignment of DOD-wide distribution activities and to establish concepts and operational frameworks relating to the planning and execution of DOD transportation operations.
Although DOD did not concur with this recommendation at the time we issued our report in 2005, DOD officials have recently told us they plan to issue a directive aimed at more clearly defining the role of the distribution process owner. Until this directive is issued, the responsibilities and authorities of the distribution process owner remain unclear. Echoing this theme, the Defense Business Board in April 2007 recommended that DOD take steps to clearly identify decision-making authority regarding supply chain integration. Specifically, the Defense Business Board recommended that DOD define and communicate enterprise goals in order to align initiatives; clearly define responsibilities and authorities of all players in the supply and distribution processes; and allocate responsibility and authority to set direction and oversee progress, and make necessary decisions to carry out DOD’s agreed-upon supply chain management strategy and achieve enterprise goals.

DOD, like much of the federal government, will face critical challenges during the 21st century that will test fundamental notions about how agencies and departments should be organized and aligned to carry out their missions. For example, the department faces challenges in accomplishing its transformation goals and making improvements in key business areas such as supply chain management. We have suggested that decision makers may need to reexamine fundamental aspects of DOD’s programs by considering issues such as whether current organizations are aligned and empowered to meet the demands of the new security environment as efficiently as possible and what kinds of economies of scale and improvements in delivery of support services would result from combining, realigning, or otherwise changing selected support functions, including logistics.  

Between now and the next update of our high-risk series in 2009, we plan to continue to assess DOD’s progress in resolving supply chain management problems against the criteria we have established for removing a high-risk designation. In addition to monitoring the progress of DOD’s plan, we plan to conduct audits related to specific aspects of supply chain management. As I indicated earlier, a priority for the department as it moves forward should be to track and assess the outcomes achieved.

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through its initiatives and the progress made in resolving supply chain management problems in the three focus areas of asset visibility, requirements forecasting, and materiel distribution. We will also consider progress made in defense business transformation, business system modernization, and financial management because of the close linkage between these efforts and DOD’s success in improving its supply chain management. We look forward to working with the department to provide an accurate appraisal of progress toward the goal of successfully resolving problems that have hindered effective and efficient supply chain management.

Mr. Chairman, this concludes my prepared remarks. I would be happy to answer any questions you or other Members of the Subcommittee may have.

Contacts and Acknowledgments

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