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# DEFENSE LOGISTICS

DOD Needs to Take Additional Actions to Address Challenges in Supply Chain Management

–U.S. Government Accountability Office





Highlights of GAO-11-569, a report to congressional committees

## Why GAO Did This Study

DOD estimated that overall spending on logistics, including supply chain management, was more than \$210 billion in fiscal year 2010. Because of long-standing weaknesses in supply chain management, GAO has designated DOD supply chain management as a high-risk area and identified three focus areas for improvement-requirements forecasting, asset visibility, and materiel distribution. GAO reviewed the extent to which DOD has developed and implemented (1) corrective action plans that address challenges in the three focus areas, (2) an effective program for monitoring and validating the effectiveness and sustainability of supply chain management corrective actions, and (3) an ability to demonstrate supply chain management progress. GAO prepared this report to assist Congress in its oversight of DOD's supply chain management. GAO reviewed strategic and improvement plans, reviewed documents detailing the performance management framework, and assessed performance measures.

### What GAO Recommends

GAO recommends that DOD develop and implement corrective action plans and performance measures for asset visibility and materiel distribution and take steps to fully institute its performance management framework. DOD concurred or partially concurred with two recommendations and did not concur with four, citing ongoing initiatives and existing policy. GAO believes all recommendations remain valid, as further discussed in the report.

View GAO-11-569 or key components. For more information, contact Jack E. Edwards at (202) 512-8246 or edwardsj@gao.gov.

# **DEFENSE LOGISTICS**

# DOD Needs to Take Additional Actions to Address Challenges in Supply Chain Management

### What GAO Found

DOD has developed and begun to implement a corrective action plan for requirements forecasting, one of the three focus areas GAO identified as needing improvement in supply chain management. However, it does not have similar plans for the focus areas of asset visibility or materiel distribution. Such corrective action plans are critical to resolving weaknesses in these two areas. Such plans should (1) define root causes of problems, (2) identify effective solutions, and (3) provide for substantially completing corrective measures in the near-term, including steps necessary to implement solutions. DOD's *Comprehensive Inventory Management Improvement Plan*, issued in October 2010 in response to a statutory mandate, includes the elements necessary to serve as a corrective action plan for requirements forecasting. DOD's 2010 *Logistics Strategic Plan*, and other prior logistics-related plans, do not contain all of the elements needed to serve as corrective action plans for either asset visibility or materiel distribution, such as definition of problems or performance information to gauge progress in achieving outcomes.

DOD outlined a performance management framework that is designed to provide guidance and oversight of logistics efforts, including supply chain improvement efforts. GAO's prior work has shown that in order for agencies to address challenges, they need to institute a program to monitor and validate the effectiveness and sustainability of corrective actions. The framework, as outlined in the 2010 *Logistics Strategic Plan*, offers a new management tool that may enable DOD to manage performance in supply chain management. For example, it calls for an ongoing assessment and feedback process that could help to ensure that improvement efforts are effective. However, DOD has not included key elements for instituting its performance management framework, such as implementing guidance to affected stakeholders, a strategy to communicate results internally and to stakeholders such as Congress, or definition of the roles and responsibilities of senior logistics governance bodies and chief management officers. Until the framework is fully instituted, DOD may not be able to effectively use this new management tool to monitor the effectiveness of corrective actions.

DOD and its components track many aspects of the supply chain; however, DOD does not have performance measures that assess the overall effectiveness and efficiency of the supply chain across the enterprise. In order to fully address challenges, agencies must be able to demonstrate progress achieved through corrective actions, which is possible through the reporting of performance measures. In the development of its inventory management improvement plan, a collaborative process was used to define existing and needed performance measures for requirements forecasting. A similar collaborative focus on developing enterprisewide performance measures for asset visibility and materiel distribution has not occurred. The department may have difficulty demonstrating progress until enterprisewide performance measures are developed and implemented in all three focus areas for improving its supply chain management.

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#### Abbreviations

СМО	Chief Management Officer
DLA	Defense Logistics Agency
DOD	Department of Defense
TRANSCOM	U.S. Transportation Command

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United States Government Accountability Office Washington, DC 20548

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**Congressional Committees** 

One of the most complex and vital tasks facing the Department of Defense (DOD) is managing its supply chain to effectively and efficiently provide spare parts, food, fuel, and other critical supplies in support of U.S. military forces. In short, DOD's goal and challenge are to deliver the right items to the right place at the right time, and at the right cost. Supply chain management encompasses the processes and systems for accomplishing this goal, and many DOD organizations have important roles and responsibilities, including the Office of the Secretary of Defense, the military services, Defense Logistics Agency (DLA), U.S. Transportation Command (TRANSCOM), and the geographic combatant commands. DOD's investment in its supply chains is substantial; DOD estimated that overall spending on logistics, including supply chain management, amounted to more than \$210 billion in fiscal year 2010.

Because of long-standing weaknesses in supply chain management, we have designated DOD supply chain management as a high-risk area needing management attention and improvement.<sup>1</sup> We identified three focus areas for improvement—requirements forecasting, asset visibility, and materiel distribution.

• Requirements forecasting. DOD defines requirements as the need or demand for personnel, equipment, facilities, other resources, or services in specified quantities for specific periods of time or at a specified time. Accurately forecasted supply requirements are a key first step in efficiently buying, storing, positioning, and shipping items that the warfighter needs. Matching supply inventories to requirements has been a continuing challenge for the department. As a result, the services and DLA have had inventory levels that are higher than needed to meet current requirements. DOD reported that it manages more than 4 million secondary inventory items valued at

<sup>&</sup>lt;sup>1</sup>GAO, High-Risk Series: An Update, GAO-11-278 (Washington, D.C.: February 2011).

more than \$91 billion as of September 2009.<sup>2</sup> However, DOD reported that \$10.3 billion (11 percent) of its secondary inventory has been designated as potential excess and categorized for potential reuse or disposal. According to DOD, another \$15.2 billion (17 percent) of its secondary inventory exceeds the approved acquisition objective and is being retained because it was determined to be more economical to retain than to dispose of it or it might be needed in the future.<sup>3</sup> Our prior reviews of spare parts inventory management at DLA and the Army, Navy, and Air Force<sup>4</sup> found that problems with accurately forecasting demand for spare parts were a major factor contributing to mismatches between inventory levels and requirements.<sup>5</sup>

 Asset visibility. DOD describes this focus area 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 that information. Limitations in asset visibility make it difficult to obtain timely and accurate information on the assets that are present in the theater of operations. DOD faces asset visibility challenges due, in part, to a lack of interoperability among information technology

<sup>4</sup>GAO, Defense Inventory: Defense Logistics Agency Needs to Expand on Efforts to More Effectively Manage Spare Parts, GAO-10-469 (Washington, D.C.: May 11, 2010); Defense Inventory: Army Needs to Evaluate Impact of Recent Actions to Improve Demand Forecasts for Spare Parts, GAO-09-199 (Washington, D.C.: Jan. 12, 2009); Defense Inventory: Management Actions Needed to Improve the Cost Efficiency of Navy's Spare Parts Inventory, GAO-09-103 (Washington, D.C.: Dec. 12, 2008); and Defense Inventory: Opportunities Exist to Save Billons by Reducing Air Force's Unneeded Spare Parts Inventory, GAO-07-232 (Washington, D.C.: Apr. 27, 2007).

<sup>5</sup>Demand forecasting is the prediction of future customer demands so inventory managers can develop inventory requirements to satisfy demands when they occur. Inaccurate demand forecasts may lead to either excess inventory or shortfalls.

<sup>&</sup>lt;sup>2</sup>DOD defines secondary inventory items to include reparable components, subsystems, and assemblies other than major end items (e.g., ships, aircraft, and helicopters), consumable repair parts, bulk items and materiel, subsistence, and expendable end items (e.g., clothing and other personal gear).

<sup>&</sup>lt;sup>3</sup>The approved acquisition objective incorporates both materiel needed to meet the requirements objective and materiel needed to meet an additional 2 years of estimated future demand. The requirements objective is (for wholesale inventory replenishment) the maximum authorized quantity of stock for an item. It consists of the sum of stock represented by the economic order quantity, the safety level, the repair-cycle level, and the authorized additive levels. While inventory held for economical reasons or future use is not part of the approved acquisition objective, DOD states that retention of this inventory is necessary for the military mission.

systems, problems with the management of shipping containers, and challenges in instituting new technologies for tracking assets.<sup>6</sup>

Materiel distribution. This focus area is the process for synchronizing all elements of the logistics system to deliver needed supplies to support the deployed warfighter. DOD has faced difficult distribution challenges in Afghanistan due to limited cargo-processing and cargoreceiving capabilities, a lack of full visibility over supply and equipment movements into and around Afghanistan, and a lack of coordination and competing logistics priorities in a coalition environment, along with several other challenges. During operations in Iraq, DOD faced challenges in coordinating and consolidating distribution and supply support, such as 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. Such distribution and supply support challenges impeded the timely delivery of supplies and contributed to shortages of items critical to the warfighter.<sup>7</sup>

Under our criteria for removing a high-risk designation, agencies with such programs must, among other things, develop and implement detailed corrective action plans and have an effective approach for managing performance, which includes a program to monitor and validate the effectiveness and sustainability of corrective actions and the ability to demonstrate progress. As we have discussed in prior reports and testimonies, DOD has taken steps toward addressing supply chain management weaknesses over the last several years and has made

<sup>&</sup>lt;sup>6</sup>GAO, Defense Logistics: Lack of Key Information May Impede DOD's Ability to Improve Supply Chain Management, GAO-09-150 (Washington, D.C.: Jan. 12, 2009); and Defense Logistics: Efforts to Improve Distribution and Supply Support for Joint Military Operations Could Benefit from a Coordinated Management Approach, GAO-07-807 (Washington, D.C.: June 29, 2007).

<sup>&</sup>lt;sup>7</sup>GAO, Warfighter Support: Preliminary Observations on DOD's Progress and Challenges in Distributing Supplies and Equipment to Afghanistan, GAO-10-842T (Washington, D.C.: June 25, 2010); 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, GAO-07-1064T (Washington, D.C.: July 10, 2007); and Defense Logistics: Actions Needed to Improve the Availability of Critical Items during Current and Future Operations, GAO-05-275 (Washington, D.C.: Apr. 8, 2005).

some progress.<sup>®</sup> In 2010, DOD issued its *Logistics Strategic Plan*,<sup>®</sup> which represents the department's most recent high-level strategy for continuing to address supply chain management, as well as other logistics issues.

This report addresses DOD's efforts to improve supply chain management under its 2010 *Logistics Strategic Plan*. It was prepared under the authority of the Comptroller General to conduct evaluations at his own initiative and is being addressed to the committees of jurisdiction and to others who have expressed interest in tracking DOD's efforts to improve supply chain management. Specifically, this report addresses the extent to which DOD has developed and implemented (1) corrective action plans that address challenges in the three focus areas we identified for improvement, (2) an effective program for monitoring and validating the effectiveness and sustainability of supply chain management corrective actions, and (3) an ability to demonstrate supply chain management progress. The Related GAO Products section at the end of this report provides additional information on our prior relevant work.

To assess the extent to which DOD has developed and implemented corrective action plans that address high-risk challenges in the three focus areas, we identified existing plans for logistics, supply chain management, and the three focus areas. We assessed the extent to which such plans provided a comprehensive, integrated strategy for improving one or more of the focus areas and included the key elements of a corrective action plan that we have previously identified. We also met with officials from the Office of the Deputy Assistant Secretary of Defense for Supply Chain Integration to determine the status of DOD's planning efforts. To assess the extent to which DOD has an effective program for monitoring and validating the effectiveness and sustainability of corrective actions, we reviewed the performance management framework identified in DOD's 2010 *Logistics Strategic Plan*. We reviewed the features of the framework, its implementation status, and the extent the framework included key elements as identified, for example, in results-oriented

<sup>&</sup>lt;sup>8</sup>GAO, *DOD's High-Risk Areas: Observations on DOD's Progress and Challenges in Strategic Planning for Supply Chain Management*, GAO-10-929T (Washington, D.C.: July 27, 2010); GAO-10-842T; and GAO-09-150.

<sup>&</sup>lt;sup>9</sup>DOD, Office of the Secretary of Defense, Principal Deputy Assistant Secretary of Defense for Logistics and Materiel Readiness, *Department of Defense Logistics Strategic Plan* (July 2010).

management best practices. We also met with DOD officials to understand the logistics governance processes and structure. To assess the extent to which DOD has an ability to demonstrate supply chain management progress, we reviewed performance measures discussed in the *Logistics Strategic Plan*, as well as any existing or planned performance measures for the three focus areas. As a basis for evaluating these measures, we reviewed DOD policy, federal standards, and our prior findings and recommendations on this issue. We also reviewed ongoing performance measurement initiatives and met with officials from the Office of the Secretary of Defense and military services who are involved with those initiatives. We spoke with DOD officials, including officials from various agencies and offices, to determine what performance measures they tracked and monitored. Additional information on our scope and methodology is provided in appendix I.

We conducted this performance audit from February 2010 to July 2011 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evident to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our finding and conclusions based on our audit objectives.

BackgroundDOD defines its logistics mission, including supply chain management, as<br/>supporting the projection and sustainment of a ready, capable force<br/>through globally responsive, operationally precise, and cost-effective joint<br/>logistics support for America's warfighters. Supply chain management is<br/>the operation of a continuous and comprehensive logistics process, from<br/>initial customer order for materiel or services to the ultimate satisfaction of<br/>the customer's requirements. It is DOD's goal to have an effective and<br/>efficient supply chain, and the department's current improvement efforts<br/>are aimed at improving supply chain processes, synchronizing the supply<br/>chain from end to end, and adopting challenging but achievable<br/>standards for each element of the supply chain.Many DOD OrganizationsMany organizations within DOD have important roles and responsibilities<br/>for supply obsin management, and these responsibilities are spread

Have Important Roles and Responsibilities for Supply Chain Management

Many organizations within DOD have important roles and responsibilities for supply chain management, and these responsibilities are spread across multiple components with separate funding and management of logistics resources and systems. The Office of the Under Secretary of Defense for Acquisition, Technology and Logistics serves as the principal staff assistant and advisor to the Secretary of Defense for all matters relating to defense logistics, among other duties. The Secretary of Defense also designated the Under Secretary of Defense for Acquisition, Technology and Logistics as the department's Defense Logistics Executive with overall responsibility for improving and maintaining the defense logistics and supply chain system. The Assistant Secretary of Defense for Logistics and Materiel Readiness, under the authority, direction, and control of the Under Secretary of Defense for Acquisition, Technology and Logistics, serves as the principal logistics official within the senior management of the department. Within the Office of the Assistant Secretary for Logistics and Materiel Readiness, the Deputy Assistant Secretary of Defense for Supply Chain Integration improves the integration of the DOD supply chain through policy development and facilitates component implementation of supply chain management practices, among other duties.

Each of the military departments is separately organized under its own Secretary. Subject to the authority, direction, and control of the Secretary of Defense, the Secretaries of the military departments are responsible for, among other things, organizing, training, and equipping their forces. Additionally, according to a DOD directive, each military department Secretary is responsible for preparing and submitting budgets for their respective department, justifying approved budget requests<sup>10</sup> before Congress, and administering the funds made available for maintaining, equipping, and training their forces.<sup>11</sup> Another important organization in supply chain management is DLA, which purchases and provides nearly all of the consumable items<sup>12</sup> needed by the military, including a majority of the spare parts needed to maintain weapon systems and other equipment.

During joint military operations, J-4 is the principal joint staff organization responsible for integrating logistics planning and execution in support of

<sup>&</sup>lt;sup>10</sup>The budget requests of the military departments are reviewed and revised by the Office of the Secretary of Defense and the Office of Management and Budget before being incorporated into the President's budget.

<sup>&</sup>lt;sup>11</sup>DOD Directive 5100.01, *Functions of the Department of Defense and Its Major Components* (Dec. 21, 2002).

<sup>&</sup>lt;sup>12</sup>Consumable items include commodities such as subsistence (food), fuels, medical supplies, clothing, construction equipment, and spare parts that are normally expended or intended to be used up beyond recovery or repair.

joint operations. In carrying out this responsibility, the J-4 relies on various DOD components, including the military services, DLA, and TRANSCOM, to provide the logistics resources and systems needed to support U.S. forces. Specifically, DOD's doctrine governing logistics in joint operations states that DLA and the military services share responsibilities as the suppliers of equipment and supplies to the joint force needed for sustained logistic readiness.<sup>13</sup> It further states that as the suppliers, they are responsible for delivering the right forces and materiel, at the right place and time, to give the components of the joint force what they require, when they need it. TRANSCOM, in addition to its responsibilities for transporting equipment and supplies in support of military operations, is designated as the distribution process owner for DOD. The role of the distribution process owner is to, among other things, oversee the overall effectiveness, efficiency, and alignment of departmentwide distribution activities, including force projection, sustainment, and redeployment/retrograde operations.

DOD also has two senior-level governance bodies for logistics and supply chain management—the Joint Logistics Board and the Supply Chain Executive Steering Committee. The Joint Logistics Board reviews the status of the logistics portfolio and the effectiveness of the defensewide logistics chain in providing support to the warfighter. The Joint Logistics Board is co-chaired by the Assistant Secretary of Defense for Logistics and Materiel Readiness and the Joint Staff Director of Logistics, and has senior-level participants from the military services, combatant commands, and DLA.<sup>14</sup> DOD officials stated that the Supply Chain Executive Steering Committee is another important executive-level governance body for oversight of improvement efforts. The Executive Steering Committee is chaired by the Deputy Assistant Secretary of Defense for Supply Chain Integration and has participants from many of the same DOD organizations as the Joint Logistics Board.

The department's Chief Management Officer (CMO) and Deputy CMO are senior-level officials with broad oversight responsibilities across

<sup>&</sup>lt;sup>13</sup>Joint Chiefs of Staff, *Joint Publication 4-0*, Joint Logistics (July 18, 2008).

<sup>&</sup>lt;sup>14</sup>The Principal Deputy Assistant Secretary of Defense for Logistics and Materiel Readiness currently serves as the co-chair as the Assistant Secretary of Defense for Logistics and Materiel Readiness position is vacant.

	defense business operations, which include supply chain management. <sup>15</sup> They have responsibilities related to the improvement of the efficiency and effectiveness of these business operations. For example, they oversee the development and implementation of DOD's <i>Strategic</i> <i>Management Plan</i> , which includes supply chain management and other business operations areas such as business system modernization and financial management.
GAO Has Designated DOD Supply Chain Management as a High-Risk Area	DOD maintains military forces with unparalleled combat and support capabilities; however, it also continues to confront long-standing management problems related to its business operations that support these forces. These business operations include—in addition to supply chain management—financial management, business system modernization, and overall defense business transformation, among others. We have identified DOD supply chain management as a high-risk area due to weaknesses both in the management of supply inventories and responsiveness to warfighter requirements. <sup>16</sup> Inventory management problems have included (1) high levels of inventory beyond that needed to support current requirements and future demands and (2) ineffective and inefficient inventory management practices. In addition, we have reported on shortages of critical items and other supply support problems during the early operations in Iraq, as well as on the numerous logistics challenges that DOD faces in supporting forces in Afghanistan. <sup>17</sup>
	<sup>15</sup> The CMO is responsible for ensuring that DOD's core business missions are optimally aligned to support the warfighting mission and establishing performance goals and measures for improving and evaluating overall economy, efficiency, and effectiveness; and monitoring and measuring progress of the department, among other duties. See Department of Defense Directive 5105.02, <i>Deputy Secretary of Defense</i> (Feb. 18, 2009). The Deputy CMO's responsibilities include making recommendations to the CMO on the methodologies and measurement criteria to improve business operations; advising the Secretary of Defense on performance goals and measures, and assessing progress against those goals; and assisting department officials in ensuring that strategic plans, performance goals, and measures are aligned with, and provide accountability for, DOD strategic goals, among other duties See Department of Defense (Oct. 17, 2008). <sup>16</sup> The title of this high-risk area was initially "DOD inventory management." Subsequently, our work demonstrated that the problems adversely affecting support to the warfighter extended beyond DOD's inventory management system to involve the entire supply chain. As a result, we subsequently modified the title to "DOD supply chain management."

We initiated our high-risk list and biennial updates to focus attention on government operations that we identified as being at high risk due to their greater vulnerabilities to fraud, waste, abuse, and mismanagement, as well as areas that have a need for broad-based transformations to address major economic, efficiency, or effectiveness challenges. The high-risk list serves to identify serious weaknesses in areas involving substantial resources and provide critical services to the public. Solutions to high-risk problems offer the potential to save billions of dollars, improve service to the public, and strengthen the performance and accountability of the U.S. government.

Removal of a high-risk designation may be considered when legislative and agency actions result in significant and sustainable progress toward resolving a high-risk problem. Over time, we have removed the high-risk designations of 21 programs or operations.<sup>18</sup> When we review an agency's actions taken to address high-risk challenges, we assess the actions against five criteria: (1) a demonstrated strong commitment to and top leadership support for addressing problems, (2) the capacity to address problems, (3) a corrective action plan that provides for substantially completing corrective measures in the near term, (4) a program to monitor and independently validate the effectiveness and sustainability of corrective measures, and (5) demonstrated progress in implementing corrective measures.<sup>19</sup> With respect to supply chain management, we found in our most recent update of the high-risk series that DOD generally met the first two criteria. That is, DOD demonstrated top leadership support for addressing its supply chain management weaknesses, and it has the people and resources necessary to do so. We found that DOD partially met the other three criteria.<sup>20</sup>

<sup>20</sup>GAO-11-278.

<sup>&</sup>lt;sup>18</sup>In the most recent update, we removed DOD's personnel security clearance program's high-risk designation because of the department's progress in improving the timeliness of clearance investigations and developing tools and metrics to assess quality.

<sup>&</sup>lt;sup>19</sup>GAO, *Determining Performance and Accountability Challenges and High Risks*, GAO-01-159SP (Washington, D.C.: November 2000).

# Prior and Current Strategic Planning for DOD Supply Chain Management

On the basis of our prior work, we have recommended that DOD develop an integrated, comprehensive plan for improving logistics, to include supply chain management.<sup>21</sup> Our prior work has shown that strategic planning is the foundation for defining what an agency seeks to accomplish, identifying the strategies it will use to achieve desired results, determining how well it succeeds in reaching results-oriented goals, and achieving objectives. Combined with effective leadership, strategic planning provides decision makers with a framework to guide program efforts and the means to determine if these efforts are achieving the desired results. Characteristics of an effective strategic plan should include a comprehensive mission statement; problem definition, scope, and methodology; goals and objectives; activities, milestones, and performance measures; resources and investments; organizational roles, responsibilities, and coordination; and key external factors that could affect the achievement of goals.<sup>22</sup>

Over the last several years, DOD has issued a series of strategic planning documents for logistics and supply chain management. For example, DOD issued the first iteration of its *Supply Chain Management Improvement Plan* in 2005 to address some of the systemic weaknesses highlighted in our reports. DOD subsequently updated that plan on a periodic basis. Also in 2005, DOD produced its *Focused Logistics Roadmap*, which catalogued current efforts and initiatives. In 2008, DOD released its *Logistics Roadmap* with the intent of providing a more coherent and authoritative framework for logistics improvement efforts, including supply chain management. While these plans have differed in scope and focus, they have typically included a number of high-level goals and related initiatives addressing aspects of supply chain management.

<sup>&</sup>lt;sup>21</sup>GAO, *DOD's High-Risk Areas: Progress Made Implementing Supply Chain Management, but Full Extent of Improvement Unknown*, GAO-07-234 (Washington, D.C.: Jan. 17, 2007).

<sup>&</sup>lt;sup>22</sup>GAO, Managing for Results: Critical Issues for Improving Federal Agencies' Strategic Plans, GAO/GGD-97-180 (Washington, D.C.: Sept. 16, 1997). For an example showing how these individual elements of a strategic plan have been addressed, see GAO, *Depot Maintenance: Improved Strategic Planning Needed to Ensure That Navy Depots Can Meet Future Maintenance Requirements*, GAO-10-585 (Washington, D.C.: June 11, 2010).

These prior plans represented positive steps toward resolving weaknesses in supply chain management. However, our reviews of the plans found that they fell short of providing an integrated, comprehensive strategy for improving logistics, including supply chain management.<sup>23</sup> The plans, for example, had some deficiencies that reduced their usefulness for guiding and overseeing improvements. Among other things, the plans did not identify the scope of logistics problems or the capability gaps they sought to address, provide a basis for determining funding priorities among various initiatives, or clearly link to logistics decision-making processes.

Most recently, DOD issued its 2010 *Logistics Strategic Plan* and indicated a commitment to update this plan annually. The plan, which supersedes the prior plans issued by the department, identifies four overarching logistics goals, including one goal that specifically addresses supply chain management.<sup>24</sup> We testified on this plan in July 2010 and identified some of the same deficiencies found in previous plans.<sup>25</sup>

DOD Has Developed and Is Implementing a Corrective Action Plan for One of Three High-Risk Focus Areas Needing Improvement

<sup>25</sup>GAO-10-929T.

<sup>&</sup>lt;sup>23</sup>GAO-09-150, GAO-07-1064T, and DOD's High-Risk Areas: Challenges Remain to Achieving and Demonstrating Progress in Supply Chain Management, GAO-06-983T (Washington, D.C.: July 25, 2006).

<sup>&</sup>lt;sup>24</sup>Other goals in the plan also have aspects relating to supply chain management, including (1) provide logistics support in accordance with warfighters' requirements and (2) ensure supportability, maintainability, and costs are considered throughout the acquisition cycle.

DOD Has a Corrective Action Plan for Inventory Management That Addresses the Requirements Forecasting Focus Area

DOD has developed and begun to implement a corrective action plan for requirements forecasting, one of the three major focus areas we identified as needing improvement in supply chain management. Specifically, DOD's *Comprehensive Inventory Management Improvement Plan*, issued in October 2010 in response to a statutory mandate,<sup>26</sup> includes developing more accurate demand forecasting as a key improvement effort for the department. On the basis of our analysis, we believe this document can serve as a corrective action plan for the requirements forecasting focus area.<sup>27</sup> Corrective action plans are critical to resolving weaknesses in high-risk areas. Such plans should (1) define root causes of problems, (2) identify effective solutions, and (3) provide for substantially completing corrective measures in the near-term, including steps necessary to implement solutions.<sup>28</sup>

DOD's inventory management improvement plan is aimed at reducing excess inventory and contains nine individual sub-plans that address a range of inventory management problems.<sup>29</sup> One sub-plan focuses on improving demand forecasting accuracy and the setting of inventory levels across the department. We have previously reported that the mismatch between inventory levels and requirements is due largely to inaccurate demand forecasts,<sup>30</sup> and DOD acknowledged in its 2010 *Logistics Strategic Plan* that inaccurate requirements forecasting continues to be a weakness within its supply chain. The *Comprehensive Inventory Management Improvement Plan* addresses all three of the general elements of a corrective action plan (see table 1). The plan defines the root causes of problems in demand forecasting, identifies solutions to improve its demand forecasting processes and procedures, and provides steps to achieve these solutions.

<sup>28</sup>GAO-11-278 and GAO-01-159SP.

<sup>&</sup>lt;sup>26</sup>National Defense Authorization Act for Fiscal Year 2010, Pub. L. No. 111-84, § 328 (2009).

<sup>&</sup>lt;sup>27</sup>As noted earlier, demand forecasting is a factor in establishing inventory requirements.

<sup>&</sup>lt;sup>29</sup>For our analysis of this plan, see GAO, *DOD's 2010 Comprehensive Inventory Management Improvement Plan Addressed Statutory Requirements, But Faces Implementation Challenges*, GAO-11-240R (Washington, D.C.: Jan. 7, 2011).

<sup>&</sup>lt;sup>30</sup>GAO-10-469, GAO-09-199, GAO-09-103, and GAO-07-232.

Improvement Plan Addresses the Elements of a Corrective Action Plan to Resolve High-Risk Challenges within the Requirements Forecasting Focus Area Element Extent to which plan addresses element

Table 1: Extent to Which DOD's Comprehensive Inventory Management

Element	Extent to which plan addresses element
Defines root causes for challenges	Addresses: The plan identifies problems and describes current practices for inventory management overall and specifically for key issues of requirements forecasting, such as demand forecasting. The plan details the amount of inventory excesses.
Identifies effective solutions	Addresses: The plan identifies desired outcomes for each aspect of inventory management addressed by the plan. Specifically for requirements forecasting, the plan includes five actions, or solutions, to improve the prediction of future demand so that inventory requirements more accurately reflect actual needs.
Provides steps to implement solutions	Addresses: The plan identifies actions for near-term implementation for each aspect of inventory management addressed by the plan. Specifically for requirements forecasting, the plan identifies five departmentwide actions to improve demand forecasting with targeted dates for completion through 2013. Each action is comprised of subordinate key milestones, and the plan identifies an office(s) with primary responsibility and targeted date for completion for each key milestone.

Source: GAO analysis of plan.

As we noted earlier, effective strategic planning guides program improvement efforts and provides the means to determine if these efforts are achieving the desired results. Characteristics of effective strategic planning include a comprehensive mission statement; problem definition, scope, and methodology; goals and objectives; activities, milestones, and performance measures; resources and investments; organizational roles, responsibilities, and coordination; and key external factors that could affect the achievement of goals. We reported in January 2011 that DOD's *Comprehensive Inventory Management Improvement Plan* addresses or partially addresses all of these characteristics and that it represents an important step for DOD in its efforts to improve its inventory management practices.<sup>31</sup> Further, the plan contains an appendix that details how other DOD strategies, plans, or efforts relate to its various sub-plans. Additionally, it describes the process that will be used to implement the

<sup>&</sup>lt;sup>31</sup>GAO-11-240R.

	plan and monitor progress against performance targets. While this inventory management improvement plan contains both the elements of a corrective action plan and characteristics of effective strategic planning, effective implementation will be critical for achieving expected outcomes. Implementation will be challenged by several issues, such as aggressive time lines and benchmarks and implementation of certain automated business systems.
DOD Does Not Have Detailed Corrective Action Plans for the Asset Visibility and Materiel Distribution Focus Areas	DOD has not developed corrective action plans for two other supply chain management focus areas: asset visibility and materiel distribution. DOD has plans that address aspects of these two focus areas, <sup>32</sup> but officials could not identify plans for either area that address key problems and solutions in a comprehensive, integrated manner. Challenges within these two focus areas are often interrelated and result in impacts on warfighter support. For example, difficulties or inaccuracies in the visibility over assets can cause delays in the distribution of supplies to the warfighter. Until the department develops and implements corrective action plans for these remaining two focus areas, DOD may have difficulty resolving long-standing weaknesses in supply chain management.
	Recent reviews and audits have pointed to continuing problems with asset visibility and materiel distribution that have affected supply support to the warfighter. In a recent internal DOD review of joint supply issues in theater, the department acknowledged it had insufficient visibility of assets in theater, which can result in potential inventory sources being overlooked due to lack of visibility or service ownership, <sup>33</sup> as well as limited visibility of assets while in-transit. In addition, a December 2010 Army Audit Agency report found that despite having policies and procedures in place for identifying, inspecting, and repairing containers, personnel in Iraq sometimes did not comply with the policies and failed to correctly inspect the condition of containers or update this information in

<sup>&</sup>lt;sup>32</sup>We noted, for example, that a sub-plan of DOD's *Comprehensive Inventory Management Improvement Plan* is aimed at improving total asset visibility. The focus of this sub-plan, however, is on the inventory management aspects of asset visibility (such as improving modeling used to adjust inventory levels) and does not address other challenges such as providing in-transit asset visibility or asset visibility within a theater of operations.

<sup>&</sup>lt;sup>33</sup>DOD, Joint Supply Joint Integrating Concept (Mar. 31, 2010).

computer systems.<sup>34</sup> As a result, the Army did not have an accurate accounting of containers that were in good condition for supporting the ongoing drawdown in Iraq and meeting time frames for that withdrawal. In a prior review of supply support in Afghanistan, we reported that DOD has been challenged by several materiel distribution issues, such as the transportation of cargo through neighboring countries and around Afghanistan, limited airfield infrastructure, limited storage capacity at logistics hubs, and difficulties in synchronizing the arrival of units and equipment. DOD had undertaken some efforts to mitigate these challenges, such as the expanding cargo areas at some distribution hubs. Later this year we will report on the extent to which DOD continues to experience challenges with asset visibility and materiel distribution in Afghanistan.

The 2010 Logistics Strategic Plan indicates that improving asset visibility and materiel distribution remain priorities for the department; however, the plan does not, by itself, constitute a corrective action plan to resolve supply chain management weaknesses because it lacks detailed information needed to guide and oversee improvement efforts.<sup>35</sup> Regarding asset visibility, the Logistics Strategic Plan indicates that two priorities for the department are implementing a global container management policy and implementing radio frequency identification.<sup>36</sup> Similarly, the *Logistics Strategic Plan* includes improvement initiatives for materiel distribution. However, the plan does not discuss the root causes for either asset visibility or materiel distribution weaknesses, identify the extent to which the weaknesses are present, detail steps for implementing improvement initiatives and thus achieving solutions, or contain information (such as milestones, performance information, benchmarks, and targets) necessary to gauge the department's progress in implementing these initiatives and achieving outcomes.

<sup>35</sup>GAO-10-929T.

<sup>&</sup>lt;sup>34</sup>U.S. Army Audit Agency, *Container Management in Iraq, Condition and Contents* A-2011-0047-ALL (Dec. 22, 2010).

<sup>&</sup>lt;sup>36</sup>Radio frequency identification is a type of technology that enables electronic identification and tracking of equipment and supplies and that DOD expects will improve its asset visibility.

DOD has not developed corrective actions plans for asset visibility and materiel distribution because senior-level officials considered prior strategic plans and initiatives sufficient to address high-risk challenges in these areas. However, there is some indication that DOD may place more emphasis on developing more comprehensive, integrated plans in the future. In our review of DOD's Comprehensive Inventory Management *Plan*, we noted that officials from the Office of the Secretary of Defense and DOD components provided considerable management focus and coordination across stakeholder organizations to develop that plan. In addition, during the course of our current review, a senior DOD logistics official stated that the department began an effort in January 2011 to more comprehensively review the current state of asset visibility and to develop a plan to guide future improvements in this focus area. This official expects that the asset visibility plan would be developed with the same collaborative approach as was used in the development of the inventory management plan and that the two plans would be similar in their degree of detail. Further, the senior official stated that there were ongoing initiatives in the department that could provide the foundation for a similar plan for addressing weaknesses in materiel distribution, but that such an effort had progressed less than the one for asset visibility in terms of developing a plan for guiding improvements.

Recent actions by the Secretary of Defense indicate that the department intends to take additional steps aimed at achieving cost efficiencies in these two focus areas. In a March 14, 2010 memorandum, the Secretary outlined the steps that DOD plans to take to reduce inefficiencies and eliminate duplication with respect to in-transit asset visibility. The memorandum required TRANSCOM to prepare an implementation plan for approval by the Chairman of the Joint Chiefs of Staff that, among other things, would designate TRANSCOM as the department's lead for improving in-transit asset visibility by synchronizing ongoing improvement initiatives and eliminating duplication and nonstandard practices among DOD components. The same memorandum indicated TRANSCOM should also prepare an implementation plan that, if approved, would require the military services to coordinate more closely with distribution partners on decisions regarding distribution. Specifically, the memorandum noted that the implementation plan would require the services to use the distribution process owner governance structure to coordinate decisions that impact distribution and deployment capabilities.

DOD Has Outlined a Framework for Guiding and Overseeing Improvement Efforts but Has Not Provided Implementation Plans	
DOD Has Outlined a Performance Management Framework for Guiding and Overseeing Improvement Efforts	In its 2010 <i>Logistics Strategic Plan</i> , DOD outlined a performance management framework to provide guidance and oversight of logistics improvement efforts, including supply chain improvement efforts. The plan states that the framework will be used to measure, track, and report progress in its improvement efforts. Our prior work has shown that in order for agencies to address high-risk challenges, they need to institute a program to monitor and validate the effectiveness and sustainability of corrective actions.
	DOD's framework consists of a six-step process (see table 2) and offers a new management tool that may enable DOD to manage performance in supply chain management. For example, the framework refers to developing measures and targets that are tied to goals and initiatives, and it calls for an ongoing assessment and feedback process that could help to ensure that improvement efforts are effective and staying on track. Furthermore, the first step of the framework is consistent with the development of corrective action plans for high-risk areas, as discussed in the previous section of this report. In addition, the framework replicates the performance management framework described in the department's overarching <i>Strategic Management Plan</i> for business operations. <sup>37</sup> DOD senior officials within the Supply Chain Integration Office expect the confluence between the two plans to have a positive, behavior-shaping influence on DOD organizations.

<sup>&</sup>lt;sup>37</sup>DOD, Office of the Deputy Chief Management Officer, *Department of Defense Strategic Management Plan* (July 31, 2009).

Table 2: Six-Step Performance Management Framework in DOD's 2010 Logistics
Strategic Plan

Step	Associated actions
1. Plan	Develop a set of integrated goals, measures and targets, and key initiatives that address performance issues of importance to all targets. Key initiatives are selected based on their probability of overcoming significant management challenges, ability to drive needed change, or importance to improving support to combatant commanders.
2. Set targets	Establish performance targets through a collaborative process for each measure to define what the department expects to achieve. They will be tracked and assessed routinely throughout the year of execution.
3. Cascade measures	Review respective organizational strategic plans, goals, measures, and targets by each DOD component after updates of the <i>Logistics Strategic Plan</i> to revise them as needed to reflect the broader priorities set forth in the <i>Logistics Strategic</i> <i>Plan</i> and <i>Strategic Management Plan</i> .
4. Align processes	Realign operations or organizational structures as necessary to better integrate functional activities with larger, defensewide end- to-end processes based on cascaded goals, measures, and targets.
5. Assess and report	Assess the <i>Logistics Strategic Plan</i> through a collaborative and continuous assessment and feedback process overseen by the Assistant Secretary of Defense for Logistics and Materiel Readiness, and document results in a DOD Logistics Strategic Management Report.
6. Correct	Identify and implement corrective actions by accountable individuals when flat or negative trends appear.

Source: DOD's 2010 Logistics Strategic Plan.

Although DOD outlined a performance management framework for logistics, it has not instituted this framework across the logistics enterprise. We did not find evidence during our review that DOD was using its logistics framework yet to guide and oversee improvement efforts.

Key Elements for Instituting Its Performance Management Framework Management Framework Management of the roles and responsibilities of senior-level logistics governance bodies and chief management officials. We have found some of these same weaknes with DOD's overarching performance management framework identic
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in the *Strategic Management Plan* for business operations.<sup>38</sup> Until these elements are fully defined and developed, DOD may not be in a position to effectively use this new management tool to monitor and validate the effectiveness and sustainability of corrective actions.

Other than the general outline of the performance management framework provided in the 2010 Logistics Strategic Plan, DOD has not developed and issued detailed implementation guidance to affected stakeholders. DOD and its components commonly issue directives, instructions, regulations, and other guidance to direct the implementation of new policies and programs. DOD officials from the Office of Supply Chain Integration stated that guidance on the performance management framework will be issued as necessary based on the results of initial assessments. However, no guidance has been issued to date, and procedures do not exist for implementing each of the six steps in the framework. For example, no guidance exists on the process by which stakeholders will reach consensus on setting performance targets, aligning efforts, and assessing and reporting results. The Logistics Strategic Plan states that strategic planning is a collaborative effort among the Office of the Secretary of Defense, DOD components, and other stakeholders. However, the plan does not provide detail describing how or when this collaboration will occur.

Questions about how DOD intended to implement the *Logistics Strategic Plan* were raised during a July 2010 congressional hearing.<sup>39</sup> In questions for the record submitted to DOD, a senior logistics official was asked to explain how the department intends to translate the general discussion in

### DOD Has Not Issued Implementation Guidance

<sup>&</sup>lt;sup>38</sup>We recently reported that the 2009 *Strategic Management Plan* has some weaknesses affecting its performance management framework that should be addressed. Among these weaknesses, some of the roles and responsibilities for senior positions in improving business operations across the department have yet to be fully defined and DOD has not established mechanisms to guide efforts to monitor progress and take corrective action. See GAO, *Defense Business Transformation: DOD Needs to Take Additional Actions to Further Define Key Management Roles, Develop Measurable Goals, and Align Planning Efforts*, GAO-11-181R (Washington, D.C.: Jan. 26, 2011). DOD issued an updated *Strategic Management Plan* on December 30, 2010, which covers fiscal year 2011. We plan to evaluate the updated plan to assess whether it contains key elements, such as measurable goals, funding priorities, and resource needs.

<sup>&</sup>lt;sup>39</sup>*High-Risk Logistics Planning: Progress on Improving Department of Defense Supply Chain Management*, Hearing before the Subcommittee on Oversight of Government Management, the Federal Workforce, and the District of Columbia, Senate Committee on Homeland Security and Governmental Affairs (Jul. 27 2010).

the *Logistics Strategic Plan* into specific guidance for the service and agency components.<sup>40</sup> The official responded that the components' strategic plans will align to departmentwide priorities, and top-level policy changes will cascade into component-level processes. However, the response did not discuss how or when that process will occur.

Reporting on performance and progress is identified as a step within the performance management framework; however, DOD has not carried out a strategy for communicating its implementation plans and results of its supply chain improvement efforts. For example, DOD does not have a communications strategy in place to inform internal and external stakeholders of current efforts, progress made, remaining problems, and next steps needed for further progress. Our prior work has shown that a communication strategy that creates shared expectations and reports progress is important for results-oriented management and transformation.

According to the 2010 *Logistics Strategic Plan*, DOD will develop a management report to document the department's assessments of implementation of its general plan. However, a management report has not yet been issued, and it is unclear what types of information DOD intends to include in this management report or how information in the report will be used by decision makers as part of the performance management framework. In addition, DOD officials stated that the management report would be used informally among internal stakeholders and that they did not plan on sharing the performance report with external stakeholders such as Congress.

DOD has not clearly defined the supply chain management improvementrelated roles and responsibilities of senior-level logistics governance bodies, CMO, and Deputy CMO in the performance management framework for logistics. Our prior work on results-oriented management and organizational transformation cites the importance of establishing clearly defined roles and responsibilities, and we previously testified that it was unclear how the 2010 *Logistics Strategic Plan* will be used within the existing decision-making and governance structure for logistics to assist decision makers and influence resource decisions and priorities.

<sup>40</sup>The senior DOD official was the Principal Deputy Assistant Secretary of Defense for Logistics and Materiel Readiness.

### DOD Has Not Carried Out a Strategy for Communicating Implementation Plans and Results

DOD Has Not Defined Key Roles and Responsibilities

The Logistics Strategic Plan calls for senior-level logistics governance bodies, including the Joint Logistics Board and Supply Chain Executive Steering Committee, to oversee implementation of improvements under the new performance management framework. However, the exact roles and responsibilities of these bodies are not defined in the plan. DOD issued a charter for the Joint Logistics Board in 2010 that broadly defines the roles and responsibilities of the board, and a draft charter exists for the Supply Chain Executive Steering Committee. However, neither charter specifically defines or describes the participation of those bodies in the performance management framework for logistics. For example, the charters do not clarify how the governance bodies will provide oversight of the key initiatives in the Logistics Strategic Plan. Moreover, it is not clear how the bodies will play a role in implementing individual steps in the framework such as setting targets and monitoring performance against those targets. Both bodies appear to provide oversight primarily by periodic briefings, as opposed to systematic monitoring of performance measures and improvement initiatives. For example, we found that the Joint Logistics Board provides some oversight of issues such as the development of a new joint supply support concept, ongoing and new joint logistics initiatives, and activities of joint groups and commands. The Supply Chain Executive Steering Committee maintains visibility over issues such as the development of performance metrics and some supply chain management initiatives. Although both bodies have met regularly, our review of records from these meetings indicate that neither body has exercised comprehensive and systematic oversight across all key improvement initiatives for supply chain management. Specifically, our review of the Joint Logistics Board's 2010 meeting minutes showed that the board discussed and received status briefings on 4 of the 12 supply chain improvement initiatives identified as key priorities in the 2010 Logistics Strategic Plan. Similarly, the agendas of the Supply Chain Executive Steering Committee highlight that the committee received status briefing on 3 key supply chain improvement initiatives.

The CMO and Deputy CMO are in a unique position to coordinate improvement efforts across various business operations, ensure that business-related plans are aligned, and monitor progress in implementing these plans, but their roles and responsibilities as they specifically relate to participation in the performance management framework for logistics have not been clearly defined. DOD officials have stated that logistics governance bodies are to oversee improvement efforts within the logistics enterprise, but DOD Directives provide that the CMO and Deputy CMO also have responsibilities related to the improvement of the efficiency and

effectiveness of the department's business operations.<sup>41</sup> However, it is unclear what roles and responsibilities the CMO and Deputy CMO should have as part of the performance management framework for logistics in ensuring that key logistics or supply chain management initiatives that are deemed priorities for the department realize their intended effectiveness and efficiency improvements. We have previously reported that additional opportunities exist for the CMO, assisted by the Deputy CMO, to provide the leadership needed to achieve business-related goals, including supply chain management goals.<sup>42</sup> For example, the Deputy CMO stated that she was not involved in developing or reviewing the Comprehensive Inventory Management Improvement Plan. Although she did review the Logistics Strategic Plan, this plan lacked clear performance measurement information and other detailed information, as noted earlier in this report. Moreover, successful resolution of weaknesses in supply chain management depends on improvements in some of DOD's other business operations, such as business systems modernization and financial management. We have previously recommended that DOD more clearly define how the CMO, Deputy CMO, and the military departments will reach consensus on business priorities, coordinate review and approval of updates to plans, synchronize the development of plans with the budget process, monitor implementation of reform initiatives, and report on progress, on a periodic basis, towards achieving established goals.

DOD Continues to Have Gaps in Its Ability to Measure Performance in Supply Chain Management

<sup>42</sup>GAO-11-181R.

<sup>&</sup>lt;sup>41</sup>See Department of Defense Directive 5105.02, *Deputy Secretary of Defense* (Feb. 18, 2009) and Department of Defense Directive 5105.82, *Deputy Chief Management Officer* (*DCMO*) of the Department of Defense (Oct. 17, 2008).

Effective Performance Measures Are Important for Demonstrating Progress in Programs and Activities

Federal government standards and best practices highlight the importance of tracking and demonstrating progress in programs and activities through the development and implementation of performance measures. Among other things, those standards indicate the importance of establishing and monitoring performance measures to improve program effectiveness and accountability for results.<sup>43</sup> Incorporating outcome-based performance measures is also a best practice for effective strategic planning, and performance measures enable an agency to assess accomplishments, strike a balance among competing priorities, and make decisions to improve program performance, realign processes, and assign accountability.<sup>44</sup> Further, our prior work has shown that in order to fully address high-risk challenges, agencies must be able to demonstrate progress achieved through corrective actions, which is possible through the reporting of performance measures.<sup>45</sup> Characteristics of effective performance measures include having baseline or trend data for performance assessments, setting measurable targets for future performance, and establishing time frames for the achievement of goals.

DOD logistics plans and policies also acknowledge an important role for performance measures. The 2010 *Logistics Strategic Plan* emphasizes performance management, and the need for performance measures is embedded in the performance management framework that is outlined in the plan. In addition, DOD's supply chain regulation requires that components use metrics to evaluate the performance and cost of their supply chain operations; lay out requirements for those metrics; and direct that metrics address the enterprise, functional, and program or process level of supply chain operations.<sup>46</sup> The regulation also directs DOD components to develop data collection capabilities that support supply chain metrics.

<sup>45</sup>GAO-01-159SP and GAO-11-278.

<sup>46</sup> DOD Regulation 4140.1-R, *DOD Supply Chain Materiel Management Regulation* (May 23, 2003).

<sup>&</sup>lt;sup>43</sup>Federal standards include those found in GAO, *Standards for Internal Control in the Federal Government*, GAO/AIMD-00-21.3.1 (Washington, D.C.: November 1999).

<sup>&</sup>lt;sup>44</sup>See, for example, GAO-09-150 and GAO, *The Results Act: An Evaluator's Guide to Assessing Agency Annual Performance Plans*, GAO/GGD, 10.1.20 (Washington, D.C.: April 1998).

	With respect to DOD's prior logistics strategic planning efforts that have covered supply chain management and other areas, such as the <i>Logistics Roadmap</i> , we have recommended that the Under Secretary of Defense for Acquisition, Technology and Logistics develop, implement, and monitor outcome-oriented performance measures to assess progress toward achieving the objectives and goals identified in these plans. <sup>47</sup> We have also recommended that DOD develop and implement outcome-oriented performance measures to as for supply chain improvement. <sup>48</sup> DOD agreed with these recommendations, but performance measurement has continued to challenge DOD's supply chain management, as discussed below.
Developing Enterprisewide Performance Measures for Supply Chain Management Has Challenged DOD	DOD and its components track many aspects of supply chain performance, but DOD does not have performance measures that assess the overall effectiveness and efficiency of the supply chain across the enterprise. DOD components individually track aspects of their own operations using certain performance measures. For example, TRANSCOM uses logistics response time to measure the time that passes between submission of a requisition for an item and the delivery of the item to the supply support activity. DLA uses a perfect order fulfillment metric to measure how well the end-to-end supply chain delivers the right part to the customer on time, in the correct quantity, and with no material deficiencies. The department consistently tracks one enterprisewide supply chain metric, customer wait time. <sup>49</sup> DOD logistics officials stated that as of December 2010, they increased the amount of performance information they regularly submit to the Deputy CMO for inclusion in the department's performance budget. These measures include customer wait time by military service, perfect order fulfillment for DLA, and two measures related to inventory management. However, our prior work has found, and DOD has acknowledged, that additional measures are needed.

<sup>47</sup>GAO-09-150.

<sup>48</sup>GAO-07-234.

<sup>&</sup>lt;sup>49</sup>Customer wait time is a measure of the number of days from the issuance of a customer order to satisfaction of that order. We have previously noted that one weakness of customer wait time as a measure for tracking supply chain performance is that it could fail to accurately measure the impact of supply chain management improvement initiatives as it is influenced by many external factors.

In an effort to develop enterprisewide performance measures, DOD began an initiative in 2007 called the Joint Supply Chain Architecture to identify a hierarchy of performance measures to track overall effectiveness and efficiency of the supply chain and to identify areas for improvement based on industry standards. Led by the Deputy Assistant Secretary of Defense for Supply Chain Integration and the Director of the Joint Chiefs of Staff Logistics Directorate, the Joint Supply Chain Architecture effort is identified in the 2010 Logistics Strategic Plan as a key initiative intended to promote process standardization, facilitate process integration, and define the enterprise framework. The Joint Supply Chain Architecture is based on the Supply Chain Operations Reference model, a process model that is a long-established best practice for commercial supply chains and that provides a method to evaluate and improve supply chains. We found DOD has made progress with the initiative. The progress includes clarifying some common concepts across the various DOD supply chains and organizations. For instance, it details the types of performance information that will feed into higher-level measures and identifies three possible enterprisewide measures—customer wait time, perfect order fulfillment, and total supply chain management cost. The measures focus on speed, reliability, and efficiency of the supply chain, respectively.

Two of these three measures, customer wait time and perfect order fulfillment, are not new and predate the Joint Supply Chain Architecture. DOD directed the implementation of the customer wait time metric as early as 2000 in a DOD instruction.<sup>50</sup> Perfect order fulfillment is used by DLA, as noted above, but it is not used by any other DOD components or at the enterprisewide level. A total supply chain management cost metric is far from completion, and various officials stated that the meaningfulness of this measure is uncertain. Time lines for completion of a total supply chain management cost metric or an enterprisewide perfect order fulfillment metric have not been established. DOD officials stated that the current focus of the Joint Supply Chain Architecture effort was to identify and validate the many data sources from across the supply chain needed to support the development of enterprisewide metrics.

<sup>&</sup>lt;sup>50</sup>DOD Instruction 4160.61, *Customer Wait Time and Time Definite Delivery* (Dec. 14, 2000).

DOD Used a Collaborative Process to Identify Performance Measures for the Requirements Forecasting Focus Area

In developing the *Comprehensive Inventory Management Improvement Plan*, DOD made considerable progress in identifying departmentwide performance measures, including measures within the requirement forecasting focus area, by using a collaborative process involving stakeholders representing key DOD components. As part of its plan, DOD established a metrics working group responsible for developing needed measures that do not exist and set time frames for their use. The plan identifies two to-be-developed metrics necessary to increase demand accuracy and reduce the percentage of over-forecasting bias. The two are to be developed by the end of fiscal year 2012.

A similar collaborative process for defining performance measurement for asset visibility and materiel distribution has not yet occurred. For example, implementation of radio frequency identification technology has been identified as a priority for the department in various strategic planning documents. However, DOD has not established performance measures to assess the impact of its implementation, despite the significant initial investment of resources required to use the technology. When asked to detail the progress made in passive radio frequency identification<sup>51</sup> implementation in a recent congressional hearing on supply chain management, the response of the Principal Deputy Assistant Secretary of Defense for Logistics and Materiel Readiness included two examples of improvements, such as a reduction in time to perform inventory at Tinker Air Force Base. However, DOD has not developed comprehensive, enterprisewide measures of implementation or results achieved.

Data quality and a shared approach to performance measurement across organizations present challenges to DOD's efforts to establish enterprisewide performance measures for all three focus areas of supply chain management. Ongoing efforts to modernize or replace DOD business information systems, including systems supporting supply chain management, are intended to improve data quality and data sharing within DOD components. However, we have found that data-quality problems persist, and these systems are not designed to routinely share data across organization boundaries, such as among military departments. Further, DOD's information system modernization efforts have experienced significant delays and cost increases while projected

<sup>&</sup>lt;sup>51</sup>Passive radio frequency identification is one type of this technology that DOD uses.

benefits have not yet been achieved.<sup>52</sup> Our recent review of DOD's Comprehensive Inventory Management Improvement Plan revealed concerns about data reliability and availability that could affect the department's efforts in implementing the plan, including delays in implementing business system modernization. The department is further challenged because it does not have a common approach to developing and implementing performance measures that include common definitions, data sources, and agreement regarding how to measure attributes of the supply chain across the enterprise. For example, we found that it could be difficult for the services and DLA to measure demand forecasting as they all differ in their current approach. These factors have likewise been a challenge for the Joint Supply Chain Architecture initiative. For example, one weapons system official explained that customer wait time may be ambiguous because it can be calculated differently and with different definitions. Until DOD overcomes such challenges and establishes enterprisewide performance measures for assessing supply chain performance in the three focus areas for improvement identified in our high-risk series, the department may have difficulty in demonstrating progress resulting from its corrective actions.

# Conclusions

DOD has demonstrated two key ingredients for making further improvements in supply chain management—namely, top leadership support and access to the necessary people and resources. Additionally, DOD through its new inventory management improvement plan has taken an important step toward improving requirements forecasting, one of the three focus areas where we have documented supply chain management weaknesses. Although implementation challenges remain to be addressed, the plan provides a path forward to improve DOD's inventory management practices. The lack of corrective action plans for asset visibility and materiel distribution results in additional uncertainties regarding how promptly, effectively, and efficiently DOD will be able to address its systemic problems in supply chain management.

The new performance management framework outlined in the 2010 *Logistics Strategic Plan* could be an effective management tool if it is instituted across the logistics enterprise. However, DOD has not taken

<sup>&</sup>lt;sup>52</sup>GAO, *DOD Business Transformation: Improved Management Oversight of Business System Modernization Efforts Needed*, GAO-11-53 (Washington, D.C.: Oct. 7, 2010).

	action to provide implementation guidance, an effective communications strategy that provides transparency and accountability for improvement efforts, or well-defined and documented roles and responsibilities of key governance bodies and certain senior positions within its performance management framework for logistics. The participation of the Joint Logistics Board and the Supply Chain Executive Steering Committee in the framework and how these two bodies will provide effective oversight to all key initiatives for supply chain management is unclear. Further, the roles and responsibilities of the department's CMO and Deputy CMO, as they relate to the performance management framework for logistics and existing logistics governance bodies, are similarly unclear. Moreover, the department has not defined how the CMO and Deputy CMO will ensure alignment of supply chain management improvement plans and performance management with plans and performance management of other defense business operations. Without these additional actions, DOD may not be able to fully implement the framework and use it effectively as a tool for managing performance.
	Performance information is critical for developing and implementing both effective corrective action plans and the performance management framework, and DOD has demonstrated an ability to plan for developing and enhancing performance measurement in the inventory management area. Developing meaningful, appropriate enterprisewide measures is a difficult task, especially for an organization the size and scope of DOD. Continued progress in defining needed performance measures for the requirement forecasting focus area, combined with the identification, development, and implementation of performance measures in the asset visibility and materiel distribution focus areas could highlight progress and needed management focus in order to address problems in those areas that span the supply chain enterprise. In the absence of effective performance measures, DOD cannot be assured that corrective actions are achieving intended results. Further, without these measures, it will be difficult for DOD to demonstrate progress to external stakeholders, such as Congress, and show that resources are invested efficiently.
Recommendations for Executive Action	We recommend the Secretary of Defense take the following six actions to improve DOD's supply chain management and address challenges in this high-risk area.
	To address remaining challenges in asset visibility and materiel distribution, we recommend that the Secretary of Defense direct the Under Secretary for Defense for Acquisition, Technology and Logistics to

develop and implement corrective action plans for improving these focus areas. As these two areas are closely interrelated, DOD may wish to consider creating a single comprehensive, integrated plan that addressed both focus areas for improvement. The corrective action plan or plans should (1) identify the scope and root causes of capability gaps and other problems, effective solutions, and actions to be taken to implement the solutions; (2) include the characteristics of effective strategic planning, including a mission statement; goals and related strategies (for example, objectives and activities); performance measures and associated milestones, benchmarks, and targets for improvement; resources and investments required for implementation; key external factors that could affect the achievement of goals; and the involvement of all key stakeholders in a collaborative process to develop and implement the plan; and (3) document how the department will integrate these plans with its other decision-making processes: delineate organizational roles and responsibilities; and support departmentwide priorities identified in higherlevel strategic guidance (such as the Strategic Management Plan and Logistics Strategic Plan).

To institute the performance management framework for guiding and overseeing supply chain management and other logistics improvement efforts, we recommend that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology and Logistics to take the following three actions:

- Develop and issue detailed guidance to affected stakeholders involved in implementing the performance management framework for logistics.
- Develop and implement a communications strategy for documenting and reporting on the results of supply chain management improvement efforts. The strategy should be linked with corrective actions plans, contain performance measurement information, and inform both internal and external stakeholders, including Congress.
- Revise the existing charter of the Joint Logistics Board and the draft charter of the Supply Chain Executive Steering Committee to define and describe how the governance bodies will participate in the performance management framework for logistics.

We also recommend that the Secretary of Defense clearly define the CMO's and Deputy CMO's roles and responsibilities as they specifically relate to (1) the performance management framework for logistics, including the establishment of corrective action plans and related performance measures; (2) existing governance bodies for logistics; and

	(3) the alignment of supply chain management improvement plans and performance management with those of DOD's other business operations areas.
	We recommend that the Secretary of Defense direct the Under Secretary of Defense for Acquisition, Technology and Logistics to use a collaborative process, involving all key stakeholders, to identify, develop, and implement enterprisewide performance measures needed to demonstrate progress in the focus areas of asset visibility and materiel distribution. These measures should be incorporated into corrective action plans and the performance management framework.
Agency Comments and Our Evaluation	In written comments on a draft of this report, DOD stated that it concurred with the overall intent of the report and specifically concurred or partially concurred with two of our six recommendations. However, the department did not concur with four of our recommendations. The Principal Deputy Assistant Secretary of Defense for Logistics and Materiel Readiness stated that DOD did not concur with three of our recommendations based on its ongoing major initiatives and did not concur with one recommendation that the department stated was addressed in existing policy.
	DOD concurred with our recommendation to issue guidance to all affected stakeholders involved in implementing the new performance management framework for logistics that was outlined in the 2010 <i>Logistics Strategic Plan</i> . DOD stated that guidance will be provided to components and applicable defense agencies in the last quarter of fiscal year 2011. DOD did not elaborate regarding the nature and scope of information to be included in this guidance.
	DOD partially concurred with our recommendation to revise the charters of the Joint Logistics Board and the Supply Chain Executive Steering Committee to define and describe how these governance bodies will participate in the performance management framework for logistics. DOD stated that the performance management framework is not explicitly described in the charters, but that the charters reflect that these bodies are to provide oversight, coordination, and information-sharing for logistics initiatives and issues. DOD stated its view that no change is required for the Joint Logistics Board charter, but the draft charter for the Supply Chain Executive Steering Committee will be revised to address reviews that are of performance measures and initiatives designed to drive logistics improvements. We continue to believe that effective

implementation of DOD's new performance management framework for logistics will require departmentwide direction and oversight from its governance bodies to ensure initiatives are staying on track and that progress toward goals is being made consistently throughout the department. As we discussed in our report, we found that neither of the two governance bodies has exercised comprehensive and systematic oversight across all the key improvement initiatives for supply chain management that were outlined in the 2010 *Logistics Strategic Plan*. Since DOD does not intend to revise their charters in order to define and describe how these bodies will participate in the department's new performance management framework, then it will be even more important that their roles and responsibilities be made clear and explicit in the implementation guidance that DOD says it plans to issue for the performance management framework.

In disagreeing with our other four recommendations, DOD indicates that its ongoing involvement in major improvement initiatives, as well as existing policy, is sufficient for addressing supply chain management problems. We disagree based on the findings discussed in this report. Problems in supply chain management, including the three focus areas of requirements forecasting, asset visibility, and materiel distribution, are long-standing and complex. Identifying root causes and implementing effective solutions will require the involvement and coordination of multiple stakeholders across the department, as well as a strong effort to monitor, evaluate, and oversee improvements. Our recommendations are intended to promote a systemic, integrated, and enterprisewide approach to resolving problems in supply chain management. In addition, the recommendations are closely linked with criteria and steps that agencies need to take to successfully institute changes across an enterprise and to have an area removed from GAO's high-risk list. As noted in our report, with the issuance of the Comprehensive Inventory Management Improvement Plan in 2010, DOD took important initial positive steps to address challenges in the requirements forecasting focus area, as well as other areas of inventory management. We believe that a similar approach could also be effective in addressing challenges in asset visibility and materiel distribution challenges. Our evaluation of DOD's comments with regard to each of these four recommendations follows.

DOD disagreed with our recommendation to develop and implement corrective action plans for the focus areas of asset visibility and materiel distribution. DOD stated that it did not agree with our recommendation because the department is already engaged in major efforts to improve asset visibility and materiel distribution. While DOD for many years has had improvement initiatives for certain challenges within these areas, we continue to believe that developing and implementing a corrective action plan for each of the remaining focus areas—or a single, integrated plan covering both areas—is critical to resolving supply chain management problems with a systemic, integrated, and enterprisewide approach. GAO's criteria for removing the high-risk designation—for supply chain management and other programs—specifically calls for corrective actions plans that identify the root causes of problems, solutions to these problems, and steps to achieve these solutions. Moreover, an effective strategic planning process that results in a high-quality corrective action plan can provide clear direction to addressing DOD's weaknesses in supply chain management.

DOD commented that its involvement in major efforts to improve asset visibility and materiel distribution negates the need for a corrective action plan. DOD specifically refers to three efforts-(1) the Distribution Strategic Opportunities initiative, (2) the Distribution Network Optimization initiative, and (3) the Comprehensive Inventory Management Improvement Plan. DOD states that each of these efforts has specific goals, milestones, and targets, and involves key stakeholders. It is unclear why DOD, in its written comments, focuses on the first two efforts to the exclusion of other ongoing initiatives for improving distribution. During our review, DOD officials did not highlight these efforts as paramount, nor does the 2010 Logistics Strategic Plan characterize these as DOD's most critical key initiatives. On the contrary, the 2010 Logistics Strategic Plan briefly describes the Distribution Strategic Opportunities initiative as an effort "to improve distribution across the enterprise" and includes it among several other initiatives the department has to improve supply chain processes. The Logistics Strategic Plan provides no other explanation of this initiative; provides no goals, milestones, or targets associated with the initiative; and does not show how this initiative will enable it to achieve high-level outcomes such as operating supply chains more effectively and efficiently. The plan, moreover, makes no specific mention of the second effort-the Distribution Network Optimization initiative—although information provided separately by the department indicates it is a sub-initiative under the Distribution Strategic Opportunities initiative.

Furthermore, without a strategic planning process that examines root problems and capability gaps and results in a corrective action plan, it is unclear that these initiatives alone are sufficient for addressing all major challenges in the asset visibility and materiel distribution focus areas. For example, it is unclear to what extent these initiatives address challenges in managing supply support in a joint theater of operations. It is also unclear whether the initiatives are intended to focus on improving asset visibility. As mentioned above, DOD has demonstrated an ability to carry out a collaborative strategic planning process resulting in the issuance of its *Comprehensive Inventory Management Improvement Plan*. That plan identifies corrective actions that could, when implemented, effectively address the requirements forecasting focus area and other aspects of inventory management. We continue to believe that following a similar collaborative approach that results in a corrective action plan or plans for the focus areas of asset visibility and materiel distribution would result in significant progress in addressing remaining challenges in the supply chain management high-risk area.

DOD did not concur with our recommendation to develop and implement a communications strategy for documenting and reporting on the results of supply chain management improvement efforts. DOD stated that an additional strategy of documenting and reporting its progress is not required because the department's senior logistics leadership is continuously engaged in communicating its goals and performance to internal and external stakeholders via governing bodies, public forums, and formal reporting to Congress. Further, DOD stated that it will continue to use monthly in-progress reviews of supply chain management improvement efforts as the communications strategy with the components. We continue to believe that DOD needs to report on the results and progress of its logistics and supply chain management improvement efforts. Such reporting can enhance accountability, help ensure that all stakeholders are aware of progress being made and areas needing further attention, and convey consistent directions throughout the department for follow-on actions. Communication regarding goals and performance are key steps that DOD identifies as part of the performance management framework for logistics outlined in the Logistics Strategic Plan. Further, DOD stated in this plan its commitment to issue a DOD Logistics Strategic Management Report to document the results of the assessments performed as part of the performance management framework. Given DOD's response to our recommendation, it is unclear how the department plans to implement these aspects of its performance management framework. As discussed in this report, a management report has not yet been issued, and it is unclear what types of information DOD intends to include in this report and how the information in the report will be used as part of the performance management framework. Further, DOD officials stated that the report would be used among internal stakeholders and they did not plan on sharing the report with Congress.

DOD did not concur with our recommendation to clearly define the CMO's and Deputy CMO's roles and responsibilities as they specifically relate to (1) the performance management framework for logistics, (2) existing governance bodies for logistics, and (3) the alignment of supply chain management improvement efforts with those of DOD's other business operations areas. DOD stated that this recommendation is not required because the Deputy CMO's roles and responsibilities are sufficiently documented in DOD guidance. We stated in our report that the CMO and Deputy CMO have broad responsibilities related to the improvement of the efficiency and effectiveness of DOD's business operations. However, we have previously reported that additional opportunities exist for the CMO and Deputy CMO to achieve business-related goals, including supply chain management goals. For example, we reported that the Deputy CMO was not involved in developing or reviewing the Comprehensive Inventory Management Improvement Plan. This plan was described in DOD's comments on this draft report as one of the three major ongoing efforts to improve supply chain management. Further, neither the CMO nor Deputy CMO attends meetings of the Joint Logistics Board or Supply Chain Executive Steering Committee. Among the responsibilities of the Deputy CMO are to participate as a member of senior governance councils, and participation in senior logistics governance bodies therefore may provide more opportunities for closer collaboration and involvement of the Deputy CMO in addressing challenges in supply chain management, especially those challenges that span business areas. DOD additionally stated in its comments that it did not concur with our recommendation because the logistics enterprise reports to the Under Secretary of Defense for Acquisition, Technology and Logistics, who has oversight and management responsibility for logistics. Our recommendation does not imply that oversight and management responsibility for logistics should be shifted to the CMO and Deputy CMO; however, these individuals are in a unique position to coordinate improvement efforts across all defense business areas. Therefore, these individuals need to have a clearly defined role, consistent with their overarching responsibilities in each business area. including logistics and supply chain management.

DOD did not concur with our recommendation to use a collaborative approach to identify, develop, and implement enterprisewide performance measures needed to demonstrate progress in the focus areas of asset visibility and materiel distribution. DOD stated that no additional actions are required because enterprisewide performance measures have been and continue to be developed using a collaborative process involving all stakeholders. Further, DOD stated that the performance management

framework is a process rather than a document of performance management. The department's comments noted that it is following this process in a collaborative fashion involving all stakeholders in the identification, development, and implementation of enterprisewide performance measures to demonstrate progress in key areas, including asset visibility and materiel distribution. As noted in our report, DOD used a collaborative process to define existing and needed performance measures as part of the development of its Comprehensive Inventory Management Improvement Plan. We continue to believe that DOD should follow a similar, collaborative approach for the focus areas of asset visibility and materiel distribution. Our work has shown that, at this time, enterprisewide measures for these focus areas do not yet exist. DOD began an initiative in 2007 called the Joint Supply Chain Architecture to identify a hierarchy of performance measures. However, the only enterprisewide performance measure used across the department. customer wait time, predates this Joint Supply Chain Architecture initiative. Other enterprisewide measures identified by the initiative are not fully developed and may be some time from full implementation. We agree with DOD that the performance management framework is a process and not a document. Our report does not suggest otherwise. We recommended that once key performance measures for these focus areas are defined and implemented, they be incorporated as part of the process for managing improvement efforts within the performance management framework.

DOD's comments are reprinted in their entirety in appendix II. The department also provided technical comments that we have incorporated into this report where applicable.

We are sending copies of this report to the appropriate congressional committees. We are also sending copies to the Secretary of Defense; the Deputy Secretary of Defense; and the Under Secretary of Defense for Acquisition, Technology and Logistics. This report will also be available at no charge on our Web site at http://www.gao.gov. Should you or your staff have any questions concerning this report, please contact me at (202) 512-8246 or edwardsj@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page

of this report. Staff who are major contributors to this report are listed in appendix III.

1/2 Edwards

Jack E. Edwards Director, Defense Capabilities and Management

#### List of Committees

The Honorable Carl Levin Chairman The Honorable John McCain Ranking Member Committee on Armed Services United States Senate

The Honorable Daniel K. Inouye Chairman The Honorable Thad Cochran Ranking Member Subcommittee on Defense Committee on Appropriations United States Senate

The Honorable Howard P. McKeon Chairman The Honorable Adam Smith Ranking Member Committee on Armed Services House of Representatives

## Appendix I: Scope and Methodology

To determine the extent to which the Department of Defense (DOD) has developed and implemented detailed corrective action plans that address high-risk challenges in the three focus areas we identified for improvement, we identified existing plans for logistics, supply chain management, and the three focus areas: requirements forecasting, asset visibility, and materiel distribution. We assessed the extent to which such plans provide a comprehensive, integrated strategy for improving one or more of the focus areas and include the key elements of a corrective action plan that we have previously identified. Specifically, we evaluated DOD's October 2010 Comprehensive Inventory Management Improvement Plan and determined its applicability as a corrective action plan for inventory management and the requirements forecasting focus area by comparing the plan and its elements to criteria from our prior reports on corrective action plans and effective strategic planning. Specific criteria on corrective action plans and the elements of effective strategic planning are discussed in the report. Using these same criteria, we evaluated the 2010 Logistics Strategic Plan and determined the extent to which it could serve as a corrective action plan for the areas of asset visibility and materiel distribution. We met with officials from the Office of the Deputy Assistant Secretary of Defense for Supply Chain Integration to discuss features of the 2010 Logistics Strategic Plan and any ongoing and possible future strategic planning efforts. We reviewed DOD's testimony before Congress and written responses to questions for the record on the plan. We also reviewed prior GAO reports and testimonies pertaining to DOD supply chain management, including prior strategic planning efforts.

To assess the extent to which DOD has an effective program for monitoring and validating the effectiveness and sustainability of corrective actions, we reviewed the performance management framework identified in DOD's 2010 *Logistics Strategic Plan*. We reviewed the features of the framework that are aimed at helping DOD to guide and oversee improvement efforts, and we also determined the implementation status of the framework. In addition, we assessed the extent that DOD has included elements needed for instituting the framework across the department. We based this assessment, in part, on a body of work that sets forth criteria for results-oriented management and best practices for organizations that are transforming their management practices and structures.<sup>1</sup> We also reviewed DOD's 2009 Strategic Management Plan and our recently released report on the plan. We compared the performance management frameworks of the two DOD plans to determine the degree of congruence between the frameworks. We met with officials from the Office for Supply Chain Integration to discuss the performance management framework and oversight structure (including senior-level logistics governance bodies) and obtain additional insight and supporting documentation (e.g., agendas and meeting minutes of these bodies) on the purpose and implementation of the framework. We reviewed DOD's recent congressional testimony on the 2010 Logistics Strategic Plan and written responses to related questions for the record to determine DOD's approach and perspective on implementing the plan, including the performance management framework. In addition, we reviewed legislation, DOD policies, and other documentation regarding the chief management officials, including the DOD Chief Management Officer, the Deputy Chief Management Officer, and military departments' Chief Management Officers; and our prior work on performance management.<sup>2</sup>

To determine the extent to which DOD has an ability to demonstrate supply chain management progress, we reviewed how DOD uses, or plans to use, performance measures discussed in the 2010 *Logistics Strategic Plan*. We also reviewed DOD's existing or planned performance measures for the three focus areas of improvement, including measures discussed in the *Comprehensive Inventory Management Improvement Plan*. As a basis for evaluating these measures, we reviewed DOD's supply chain management regulation,<sup>3</sup> federal standards and best practices,<sup>4</sup> and our prior findings and recommendations on this issue.<sup>5</sup>

<sup>2</sup>See, for example, DOD Directive 5105.02, *Deputy Secretary of Defense* (Sept. 18, 2007) and DOD Directive 5105.82, *Deputy Chief Management Officer (DCMO) of the Department of Defense* (Oct. 17, 2008).

<sup>3</sup> DOD Regulation 4140.1-R, *DOD Supply Chain Materiel Management Regulation* (May 23, 2003).

<sup>4</sup>These include the *Standards for Internal Control in the Federal Government*.

<sup>&</sup>lt;sup>1</sup>See GAO-11-240R; GAO, Combating Terrorism: Evaluation of Selected Characteristics in National Strategies Related to Terrorism, GAO-04-408T (Washington, D.C.: Feb. 3, 2004); Depot Maintenance: Improved Strategic Planning Needed to Ensure that Air Force Depots Can Meet Future Maintenance Requirements, GAO-10-526 (Washington, D.C.: May 14, 2010); and Depot Maintenance: Improved Strategic Planning Needed to Ensure that Navy Depots Can Meet Future Maintenance Requirements, GAO-10-585 (Washington, D.C.: June 11, 2010).

We discussed existing and planned measures with officials from the Office for Supply Chain Integration and other DOD components. We also obtained information from these officials on the development of the Joint Supply Chain Architecture since a major effort of the initiative is to define enterprisewide performance measures to track efficiency, effectiveness, and reliability of the supply chains. We met with officials from the following weapons systems program offices involved in implementing Joint Supply Chain Architecture case study programs: Integrated Materiel Management Center, U.S. Army Aviation and Missile Life Cycle Management Command, Redstone Arsenal, Alabama; PEO Integrated Warfare Systems, Washington Navy Yard, Washington, D.C.; Warner Robins Air Logistics Center, Robins Air Force Base, Georgia: Naval Inventory Control Point, U.S. Naval Supply Systems Command, Mechanicsburg and Philadelphia, Pennsylvania. We discussed performance measures used by these case study programs as well as DOD efforts to develop enterprisewide performance measures.

We conducted a site visit to the U.S. Transportation Command, Scott Air Force Base, Illinois, to obtain information and perspectives on distribution-related initiatives to discuss supply chain improvement efforts and performance management. In addition, we contacted officials from the following agencies and offices to obtain information and perspectives on the 2010 *Logistics Strategic Plan*, supply chain improvement initiatives and efforts, and their use of performance measures:

- U.S. Joint Forces Command: Operations, Plans, Logistics and Engineering Directorate, J4 Division, Norfolk, Virginia;
- Defense Logistics Agency, Ft. Belvoir, Virginia;
- U.S. Army: Office of the Deputy Chief of Staff of the Army, G-4 Logistics, Pentagon, Washington, D.C.;
- U.S. Navy: Deputy Assistant Secretary of the Navy, Acquisition and Logistics Management, Logistics Division, Pentagon, Washington, D.C.; Chief of Naval Operations Supply, Ordnance and Logistics Operations, Arlington, Virginia;
- U.S. Air Force: Air Staff, Logistics Directorate, Rosslyn, Virginia; and the Global Logistics Support Center, Scott Air Force Base, Illinois.

We also met with representatives from the Institute for Supply Management and the Center for Advanced Purchasing Studies Research,

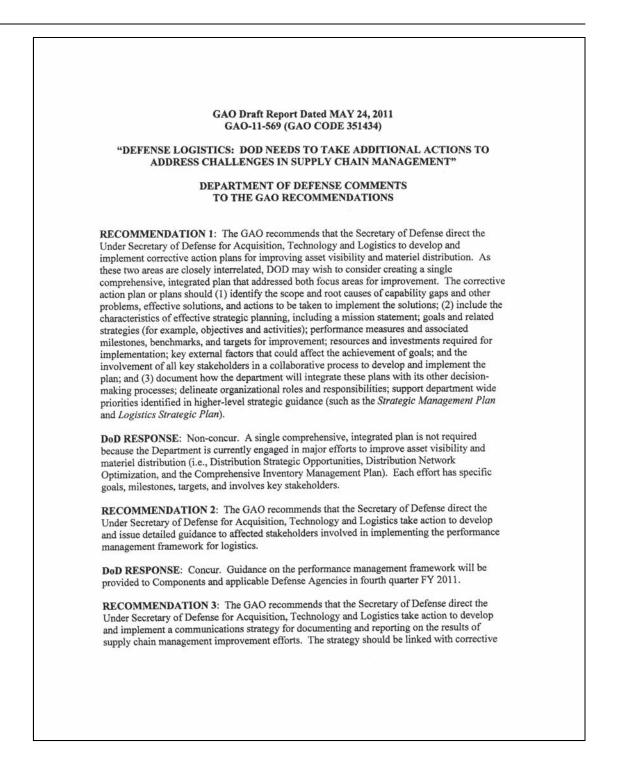
<sup>5</sup>GAO-09-150.

Tempe, Arizona; and the University of Alabama Office for Enterprise Innovation and Sustainability, Huntsville, Alabama, to obtain industry and academia's views and documentation on the Supply Chain Operation Reference model, industry standards for supply chain management, and how application of those standards are unique to DOD.

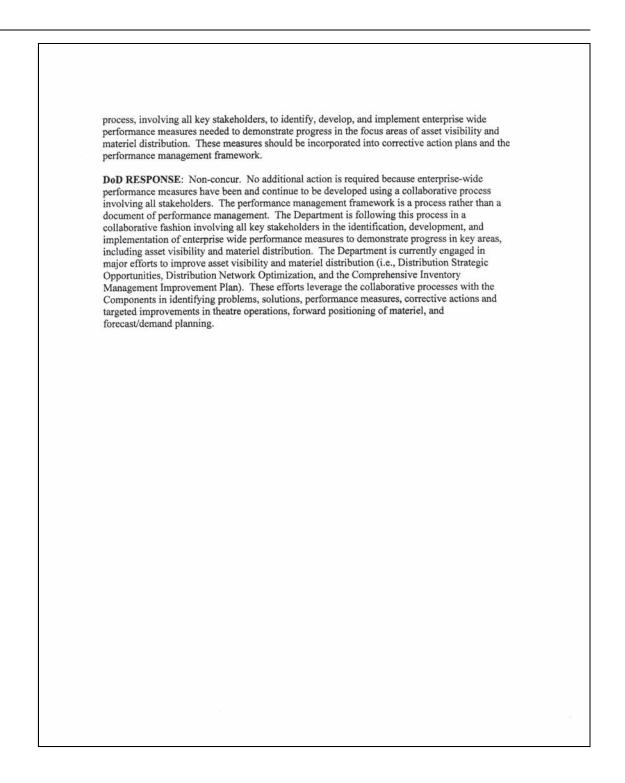
We conducted this performance audit from February 2010 to July 2011 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evident to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our finding and conclusions based on our audit objectives.

# Appendix II: Comments from the Department of Defense

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE 3500 DEFENSE PENTAGON WASHINGTON, DC 20301-3500 JUN 1 6 2011 LOGISTICS AND MATERIEL READINESS Mr. Jack Edwards Director, Defense Capabilities and Management U.S. Government Accountability Office 441 G Street, N.W Washington, DC 20548 Dear Mr. Edwards: This is the Department of Defense (DoD) response to the GAO draft report, GAO-11-569, "DEFENSE LOGISTICS: DoD Needs to Take Additional Actions to Address Challenges in Supply Chain Management," dated May 24, 2011 (GAO Code 351434). Detailed comments on the report recommendations are enclosed. The Department concurs with the overall intent of the report and specifically concurs with the recommendation to issue guidance on the performance management framework and partially concurs with the recommendation to revise governance charters. However, the Department nonconcurs with three of the recommendations based on its engagement in major efforts to improve supply chain management, and with one recommendation that is addressed in existing policy. The DoD looks forward to your final report, and thanks the GAO for the opportunity to review and comment on the draft report. Sincerely, Alan F. Estevez Principal Deputy







### Appendix III: GAO Contact and Staff Acknowledgments

GAO Contact	Jack E. Edwards, (202) 512-8246 or edwardsj@gao.gov
Staff Acknowledgments	In addition to the contact named above, Thomas Gosling, Assistant Director; Jeffrey Heit; Suzanne Perkins; and Pauline Reaves made key contributions to this report.

### **Related GAO Products**

*High-Risk Series: An Update*. GAO-11-278. Washington, D.C.: February 2011.

Defense Business Transformation: DOD Needs to Take Additional Actions to Further Define Key Management Roles, Develop Measurable Goals, and Align Planning Efforts. GAO-11-181R. Washington, D.C.: January 26, 2011.

DOD's 2010 Comprehensive Inventory Management Improvement Plan Addressed Statutory Requirements, But Faces Implementation Challenges. GAO-11-240R. Washington, D.C.: January 7, 2011.

Defense Logistics: Additional Oversight and Reporting for the Army Logistics Modernization Program Are Needed. GAO-11-139. Washington, D.C. November 18, 2010.

DOD's High-Risk Areas: Observations on DOD's Progress and Challenges in Strategic Planning for Supply Chain Management. GAO-10-929T. Washington, D.C.: July 27, 2010.

*Warfighter Support: Preliminary Observations on DOD's Progress and Challenges in Distributing Supplies and Equipment to Afghanistan.* GAO-10-842T. Washington, D.C.: June 25, 2010.

Defense Inventory: Defense Logistics Agency Needs to Expand on Efforts to More Effectively Manage Spare Parts. GAO-10-469. Washington, D.C.: May 11, 2010.

Defense Logistics: Lack of Key Information May Impede DOD's Ability to Improve Supply Chain Management. GAO-09-150. Washington, D.C.: January 12, 2009.

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