

**GAO**

Report to the Subcommittee on  
Readiness, Committee on Armed  
Services, House of Representatives

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August 2005

# DEFENSE LOGISTICS

DOD Has Begun to  
Improve Supply  
Distribution  
Operations, but  
Further Actions Are  
Needed to Sustain  
These Efforts





Highlights of [GAO-05-775](#), a report to the Subcommittee on Readiness, House Committee on Armed Services

## Why GAO Did This Study

Problems in the supply distribution system dating back to the Persian Gulf War have impeded the ability of the Department of Defense (DOD) to provide effective and timely logistics support to the warfighter. DOD has taken actions to improve the distribution system by assigning new organizational responsibilities, including designating U.S. Transportation Command as the “Distribution Process Owner” (DPO); issuing a new logistics transformation strategy; and undertaking specific improvement initiatives. GAO’s objectives were to (1) assess DOD’s organizational structure and transformation strategy to improve the distribution system and (2) determine the status of, and timelines for completing, specific DOD distribution initiatives.

## What GAO Recommends

To enhance DOD’s ability to improve the supply distribution system, GAO recommends that the Secretary of Defense (1) clarify the responsibilities, accountability, and authority between the DPO and Defense Logistics Executive; (2) issue a directive to institute these clarifications; (3) direct that improvements be made in DOD’s logistics transformation strategy; and (4) address underfunding of new communications and tracking systems. DOD disagreed with the first two recommendations and agreed with the latter two.

[www.gao.gov/cgi-bin/getrpt?GAO-05-775](http://www.gao.gov/cgi-bin/getrpt?GAO-05-775).

To view the full product, including the scope and methodology, click on the link above. For more information, contact William Solis, (202) 512-8365, [solisw@gao.gov](mailto:solisw@gao.gov).

# DEFENSE LOGISTICS

## DOD Has Begun to Improve Supply Distribution Operations, but Further Actions Are Needed to Sustain These Efforts

### What GAO Found

Although DOD has made progress in addressing supply distribution problems, the department’s ability to make coordinated, systemic improvements that cut across the multiple organizations involved in the distribution system is stymied because of problems in defining who has accountability and authority for making such improvements and because the current strategy to transform logistics does not provide a clear vision to guide and synchronize future distribution improvement efforts. The U.S. Transportation Command developed a draft directive to define the DPO role, but no directive has been approved or issued almost 2 years later because of disagreement with the Office of the Secretary of Defense (OSD) concerning the Secretary’s intent in designating the DPO. Whereas the Command asserted that the Secretary intended for the DPO to have broad authority to direct changes to the distribution system, OSD took the position that the Defense Logistics Executive—the Under Secretary of Defense (Acquisition, Technology, and Logistics)—was the accountable entity and that the DPO was to act as an advisor. As a result of this disagreement, accountability and authority for improving the distribution system remain unclear. In addition, the DPO’s roles and responsibilities may overlap with those of other organizations that are involved in deployment and distribution. In recent testimony on DOD’s business transformation efforts, GAO has stated that DOD has not routinely assigned accountability for performance to specific organizations or individuals who have sufficient authority to accomplish goals. Furthermore, DOD’s current strategy to transform logistics lacks elements of an effective strategic plan, including specific performance goals, programs, milestones, and resources needed for achieving distribution objectives. Because of the problems in DOD’s organizational structure and current strategy, DOD faces challenges in taking a coordinated and systemic approach to improving the distribution system. Until these issues are resolved, DOD has little assurance that warfighters in future conflicts will have more effective and timely logistics support.

Two of DOD’s five distribution initiatives GAO reviewed have been successful enough to warrant application to future operations, but the future of the other three is less certain because they lack funding or other support. Two promising initiatives that have been implemented are, first, the establishment of a deployment and distribution operations center in Kuwait to coordinate the arrival of supplies and, second, the consolidation of air shipments to Iraq that do not require sorting and repacking when they arrive in theater. The other three initiatives GAO reviewed are facing challenges to their implementation that raise concerns about when they will be completed. For example, the Army has not fully funded two new communications and tracking systems to better connect logisticians on the battlefield, and thus has placed their fielding schedules into question. The delay increases the risk that some future deploying units will lack a capability to effectively submit and monitor their supply requisitions.

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August 11, 2005

The Honorable Joel Hefley  
Chairman  
Subcommittee on Readiness  
Committee on Armed Services  
House of Representatives

The Honorable Solomon P. Ortiz  
Ranking Minority Member  
Subcommittee on Readiness  
Committee on Armed Services  
House of Representatives

Long-standing problems in the supply distribution system have impeded the ability of the Department of Defense (DOD) to provide effective and timely logistics support to the warfighter. These problems have included an insufficient capability to support combat forces during the early stages of a conflict, limited communications, a shortage of trucks and other transportation equipment, difficulties in distributing supplies within the theater of operations, limited visibility of assets within the distribution system, and problems with managing shipping priorities. Such problems occurred during Operation Desert Shield/Desert Storm, and DOD after action reports, as well as studies by our office and other organizations, have documented similar supply distribution problems during Operation Iraqi Freedom. Most recently, in April 2005, we reported that a lack of asset visibility was a problem in Iraq that affected supply distribution and the readiness of forces.<sup>1</sup> In addition, since 1990 we have identified supply chain and inventory management, including distribution, as one of DOD's high-risk areas.

DOD has recently taken actions aimed at addressing supply distribution problems. In September 2003, the Secretary of Defense designated new organizational responsibilities in the logistics area, including designating U.S. Transportation Command as the "Distribution Process Owner" (DPO) to improve the efficiency and interoperability of the distribution system.

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<sup>1</sup> GAO, *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).

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DOD also issued a new strategy in December 2004 for its logistics transformation efforts. Meanwhile, DOD components have undertaken a number of specific initiatives to address supply distribution problems.

In response to your request, we reviewed the progress DOD is making toward achieving logistics improvement efforts for supply distribution. Specifically, we (1) assessed DOD's organizational structure and transformation strategy to improve the distribution system and (2) determined the status of specific DOD distribution initiatives, including timelines for completing them.

To assess DOD's organizational structure and transformation strategy, we analyzed U.S. Transportation Command's progress in implementing its DPO responsibilities, including efforts to define the role of the DPO in response to the Secretary's 2003 memorandum. We also analyzed DOD's logistics transformation strategy to determine the extent to which it provides a framework for guiding and synchronizing distribution improvement efforts. To determine the status of specific DOD initiatives, we selected five initiatives that were highlighted as major ongoing efforts by representatives of U.S. Transportation Command and the Army in March 2004 testimony before the House Committee on Armed Services. We focused on these two DOD components because of the key roles they have had in supply distribution operations in Iraq. The two U.S. Transportation Command initiatives we reviewed were (1) establishing a deployment and distribution operations center to coordinate the arrival of supplies in theater and (2) improving the interoperability of information technology systems supporting the distribution system.<sup>2</sup> The three Army initiatives we reviewed were (1) consolidating air cargo pallets for shipment to a single supply support activity—called “pure packing,” (2) acquiring two communications and tracking systems to better connect logisticians on the battlefield, and (3) creating command and control units that are trained and equipped to rapidly receive military forces into a theater of operations and provide initial logistics support, which the Army refers to as a “theater opening” capability. In addition to these five initiatives, other distribution improvement programs are continuing within the department. Several of these programs have been included in a plan DOD has recently developed, in coordination with the Office of Management and Budget, to address the DOD High-Risk Area of supply

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<sup>2</sup> The term “interoperability” refers to the ability of different systems to communicate effectively, including sharing information.

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chain management.<sup>3</sup> For the five initiatives in our review, we obtained information on their purpose and funding, as well as their fielding schedule where appropriate. We discussed the specific initiatives and issues concerning supply distribution with officials from U.S. Transportation Command, the Army, the Office of the Deputy Under Secretary of Defense (Logistics and Materiel Readiness), and the Joint Staff. We visited the U.S. Central Command area of operations to obtain a first-hand view of distribution problems in the theater and how solutions were being implemented to correct them. Because some of the initiatives have been implemented for only a short time, we obtained limited data on the effectiveness of initiatives that have been implemented, and we did not independently validate these data. We determined that the data used were sufficiently reliable for our purposes. We performed our work from July 2004 through June 2005 in accordance with generally accepted government auditing standards. The scope and methodology section contains more detailed information on the work we performed.

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## Results in Brief

Although DOD has made progress in addressing supply distribution problems, the department's ability to make coordinated, systemic improvements that cut across the multiple organizations involved in the distribution system is stymied because of problems in defining who has accountability and authority for making such improvements and because the current logistics transformation strategy does not provide a clear vision to guide and synchronize future distribution improvement efforts. When the Secretary of Defense designated U.S. Transportation Command as DPO, he directed the Command to develop a directive within 30 days to define the DPO role. Although the Command developed a draft directive, it has not been approved or issued almost 2 years later because of disagreement with the Office of the Secretary of Defense (OSD) concerning the Secretary's intent in designating the DPO. Whereas the Command asserted that the Secretary intended for the DPO to have broad authority to direct changes to the distribution system, OSD took the position that the Defense Logistics Executive—the Under Secretary of

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<sup>3</sup> The distribution-related programs in DOD's plan include Radio Frequency Identification, Item Unique Identification, Joint Regional Inventory Materiel Management, War Reserve Materiel Improvements, Joint Theater Logistics, Deployment and Distribution Operations Center, Defense Transportation Coordination Initiative, and Business Management Modernization Program. We plan to issue a report soon on DOD's program to track supplies by using radio frequency identification tags. We have also undertaken a review of the Army's shortage of armored trucks during Operation Iraqi Freedom and will report on this issue separately.

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Defense (Acquisition, Technology, and Logistics)—was the accountable entity and that the DPO's intended role was to act as an advisor. As a result of this disagreement, accountability and authority for improving the distribution system remain unclear. In addition, the DPO's roles and responsibilities may overlap with those of other organizations that are involved in deployment and distribution. In recent testimony on DOD's business transformation efforts, we stated that DOD has not routinely assigned accountability for performance to specific organizations or individuals who have sufficient authority to accomplish goals. Furthermore, DOD's current strategy to transform logistics stymies the department's ability to improve distribution because it does not provide clear direction to guide and synchronize improvement initiatives based on a common vision of a future distribution system. For example, the strategy lacks guidance on specific performance goals, programs, milestones, and resources needed for achieving stated objectives. DOD officials have acknowledged the shortcomings of the current strategy and are working to develop a more detailed roadmap to guide improvement efforts. Because of the problems in DOD's organizational structure and current strategy, DOD faces challenges in taking a coordinated and systemic approach to improving the distribution system. As a result, DOD has little assurance that warfighters in future conflicts will have more effective and timely logistics support.

Two of the five DOD distribution initiatives we reviewed have been successful enough to warrant application to future operations, but the future of the other three is less certain because they lack funding or other support. Two promising initiatives that have been implemented are, first, the establishment in January 2004 of a deployment and distribution operations center in Kuwait to coordinate the arrival of supplies and, second, the use of pure packing for air shipments to Iraq, an effort the Army began in response to a January 2004 request from U.S. Central Command. According to DOD, both these initiatives helped improve the flow of supplies into and around the theater of operations for Operation Iraqi Freedom. On the basis of the success of these initiatives, U.S. Transportation Command is working with other regional combatant commands to establish a deployment and distribution operations center within their organizations, and the Army is incorporating its pure packing initiative into its regulations for Army-wide application. The other three initiatives we reviewed are facing challenges to their implementation that raise concerns about when they will be completed. The Army has not fully funded two new communications and tracking systems to better connect logisticians on the battlefield, and thus has placed their fielding schedules into question. The delay increases the risk that some future deploying

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units will lack a capability to effectively submit and monitor their supply requisitions. In addition, the Army is making progress toward developing a theater opening capability, but it is uncertain whether this capability will be deployed at the same time as combat forces in future conflicts. Finally, U.S. Transportation Command is facing challenges in improving the interoperability of information technology supporting the distribution system, an effort the Command has undertaken in its role as DPO. The Command was delayed in receiving funding to begin this initiative and will miss a deadline for developing a transition plan to guide future information technology investments. Moreover, the Command has not been able to gain agreement from other DOD components on which of their existing information technology systems should be included in this effort to improve interoperability.

This report contains four recommendations aimed at enhancing DOD's ability to take a coordinated and systemic approach to improving the distribution system, including clarifying the scope of responsibilities, accountability, and authority between the DPO and the Defense Logistics Executive. In commenting on a draft of this report, DOD did not concur with our recommendations that the Secretary of Defense clarify the scope of responsibilities, accountability, and authority between the DPO and the Defense Logistics Executive; and that he issue a directive reflecting these clarifications. DOD concurred with our recommendations to include improvements to the Logistics Transformation Strategy in its Focused Logistics Roadmap, and to determine whether sufficient funding priority has been given to the acquisition of the Very Small Aperture Terminal and the Mobile Tracking System. The department's written comments are reprinted in appendix I, and our evaluation of them appears in the Agency Comments and Our Evaluation section of this report.

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## Background

Distribution is part of the process and activities for managing the supply chain that include purchasing, producing, and delivering products and services to the warfighter during contingency operations consistent with the National Military Strategy. According to joint doctrine, distribution is the process of synchronizing all elements of the logistics system to deliver the "right things" to the "right place" at the "right time" to support the combatant commander in an area of operations.

The distribution system has two distinct segments: strategic-national and theater. The strategic-national segment consists of moving supplies from points outside a theater of military operations into the theater. The military services and the Defense Logistics Agency manage supplies and



provide for asset visibility. U.S. Transportation Command provides transportation support, primarily strategic airlift and sealift, as well as in-transit asset visibility. The theater segment consists of distribution that occurs within a theater of military operations. Theater distribution is the responsibility of the geographic combatant command, such as U.S. Central Command. The combatant commander will generally designate one military service to act as the theater lead service to oversee logistics support to all of the service components and to the theater. During Operation Iraqi Freedom, U.S. Central Command designated the Army as the theater's lead service for logistics support.

### Long-standing Problems in DOD's Distribution System

Long-standing problems in DOD's distribution system have continued to impede its ability to provide effective and timely logistics support to the warfighter during recent operations. Such problems occurred during Operation Desert Shield/Desert Storm in 1991, and DOD after action reports, as well as studies by our office and other organizations, have documented similar supply distribution problems during Operation Iraqi Freedom, as shown in table 1.

**Table 1: Distribution Problems During Operation Desert Shield/Storm and Operation Iraqi Freedom**

Operation Desert Shield/Storm—1991	Operation Iraqi Freedom—2003
<b>Logistics Force Reception</b>	
<p>The deployment of combat forces to the theater of operations in advance of support units created logistical support difficulties. The military's decisions to "push" enormous amounts of equipment to the theater and to deploy combat units before support units in the first 3 months of the campaign contributed to the Army's and Marine Corps' problem of limited capability to store and retrieve equipment and supplies during the initial stages of Operation Desert Storm. A small cadre of logisticians was established to receive incoming equipment, supplies, and personnel; support the combat units that were deployed; and build a logistics infrastructure in an austere environment.</p>	<p>DOD's priority was for combat forces to move into the theater first. A study suggested that distribution assets were either deleted from the deployment plan or shifted back in the deployment timeline. As a result, logistics personnel could not effectively support the increasing numbers of combat troops moving into theater. A shortage of support personnel in theater prior to and during the arrival of combat forces was reported, and those who arrived were often untrained or not skilled in the duties they were asked to perform. The shortage resulted in delays in the processing (receipt, sorting, and forwarding) of supplies, and backlogs. Contractors performing distribution functions had become overwhelmed and a joint contractor military organization quickly evolved. As two divisions entered the theater, the need for a Theater Distribution Center became apparent and an area in the desert was designated as a storage and cross-dock area.</p>
<b>Limited Communications</b>	
<p>The distance of the supply routes created communications problems within the logistical system because Army officials had difficulty communicating using their equipment, which was designed for much shorter ranges. Military doctrine called for units to be equipped to operate up to 90 miles from main supply bases. However, the Army supported military and logistics bases over 600 miles from its main supply bases.</p>	<p>A number of factors limited communications between the various logistics systems, including distances being too great for supply activities to effectively transmit data by radio, a lack of bandwidth in the theater to satisfy all systems users, systems that were incompatible with each other, and units lacking the necessary equipment or being delayed in connecting to the supply system.</p>

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**Operation Desert Shield/Storm—1991**

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**Operation Iraqi Freedom—2003**

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**Shortage of Ground Transportation Assets**

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Although the Army was the designated theater manager for surface transportation, it could not fulfill that role because it lacked the transportation assets to meet its own requirements. The Army experienced shortages of surface transportation assets such as heavy-equipment transports, tractor trailers, and material-handling equipment, which limited the services' ability to transport equipment and supplies. When parts requisitions were filled, transportation problems often slowed efforts to get parts to combat units. Many of the available trucks were inadequate and unreliable. More than half of the heavy transportation assets were either contracted commercial trucks or trucks provided by other nations. Despite the deployment of 72 percent of its truck companies in support of 25 percent of its combat divisions, the Army still relied on host nation support trucks to meet requirements.

The lack of adequate ground transportation, especially cargo trucks, contributed significantly to distribution problems. The 377th Theater Support Command, responsible for logistics support in Kuwait, needed 930 light/medium and medium trucks but had only 515 trucks on hand when combat began, creating a strain on materiel movement. Available transportation assets could not meet the Marine Corps' and the 3rd Infantry Division's capacity requirements. High-priority items such as food did not always move as intended. Contractors responsible for moving meals ready-to-eat from ports to the Theater Distribution Center at times had only 50 of the 80 trucks needed. At one time 1.4 million meals ready-to-eat were stored at a port in theater, awaiting transport to customers.

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**In Theater Distribution Difficulties**

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Units experienced a shortage of critical spare parts and had to strip parts from inoperable equipment and trade for parts with other units. Army units, for example, experienced difficulties in obtaining spare and repair parts for their Bradley Fighting Vehicles and Abrams tanks. Parts were generally available in Saudi Arabia at the theater level, but their distribution to combat units was inadequate. Mechanics and logistics personnel in combat units had to work around the formal parts distribution system and "scrounge" for needed parts. Documentation on containers packed at U.S. depots did not include adequate descriptions of container contents. Transportation and supply personnel in Southwest Asia had to open the containers to determine their contents and destination. Containers began stacking up in the ports because the transportation system could not move them out of the port areas quickly. Materiel designated for specific units often never reached them because no procedures were established to document the arrival of incoming supplies, and the units, in most cases, were not notified when materiel they requisitioned arrived. The rapid redeployment of units resulted in similar container problems, with the majority of containers being opened at U.S. ports to identify the contents and destination.

The lack of repair parts delivery resulted in a loss of trust and confidence in logistics systems and processes, and units were forced to improvise. At times there were shortages of some spares or repair parts needed by deployed forces. Personnel noted shortages of items such as tires, tank track, helicopter spare parts, and radio batteries. As a result, units resorted to cannibalizing vehicles or circumventing normal supply channels to keep equipment in ready condition. Early in the operation, inefficient packaging and palletizing of air shipments created supply backlogs in Kuwait. These backlogs delayed the delivery of supplies shipped by air to units in Iraq, which included armored vehicle track shoes, body armor, and tires. Once in theater, mixed shipments had to be manually opened, sorted, and re-palletized at theater distribution points, causing additional delays. Some mixed shipments were not marked with all the intended destinations so the contents of the shipments had to be examined. By the fall of 2003, 30 percent of the pallets arriving at the Theater Distribution Center still had to be reconfigured in some way. DOD could potentially pay millions of dollars for late fees on leased containers or on the replacement of DOD-owned containers due to distribution backlogs or losses.

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**Operation Desert Shield/Storm—1991****Operation Iraqi Freedom—2003**

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**Limited Asset Visibility**

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The Army did not have visibility of repair parts at the unit level and could not readily redistribute parts among units. Army officials did not have visibility of on-hand stocks at the unit and division levels, and they were operating in a vacuum deciding how much of an item to order. Army and Marine Corps officials at seaports generally knew when a ship was to arrive but had only a general idea about the type of cargo it was carrying. Incomplete manifests, mislabeled containers, or generic cargo descriptions were not uncommon for ships. Officials at an airport usually did not know the contents of incoming shipments until the unloading was complete, and air shipments also suffered from inaccurate manifests and mislabeled pallets. Army officials of a support command did not have an in-transit system for tracking cargo after it was shipped, and they had to keep personnel at the ports to determine the contents and destination of incoming cargo.

The lack of in-transit visibility over supplies impeded distribution. Because of incomplete radio frequency identification tags on incoming shipments, logistics personnel had to spend time opening and sorting the shipments, significantly increasing processing time. According to U.S. Central Command, about 1,500 Small Arms Protective Inserts plates for body armor were lost and 17 containers of meals ready-to-eat were left at a supply base in Iraq for over a week because no one at the base knew they were there. Marine Corps officials became frustrated with their inability to “see” supplies moving towards them and lost trust and confidence in the logistics system and processes. Logistics systems used to order, track, and account for supplies were not well integrated and could not provide the essential information to effectively manage theater distribution.

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**Misuse of Shipment Prioritization**

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In the initial phase of Desert Shield, Defense Logistics Agency officials were overwhelmed with high-priority requisitions for the items they managed, and until they received distribution guidance from theater managers, they issued items on a first-come first-serve basis. DOD officials in the theater confirmed the use of the high-priority code for most requisitions made in country.

DOD’s lack of an effective process for prioritizing cargo for delivery precluded the effective use of scarce theater transportation assets. The Joint Movement Center, which was responsible for validating and prioritizing movements in the theater, did not have the required resources, processes, and tools to perform this function and did not attempt to manage truck movements.

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Source: GAO analysis of DOD lessons learned studies and prior GAO reports.

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## DOD’s Changes in Organizational Responsibilities and Transformation Strategy

The Secretary of Defense, in a memorandum dated September 16, 2003, designated the Commander, U.S. Transportation Command, as DPO and directed the Command to (1) improve the overall efficiency and interoperability of distribution-related activities—deployment, sustainment, and redeployment support—during peace and war; and (2) serve as the single entity to direct and supervise execution of the strategic distribution system. The Secretary’s memorandum also designated the Under Secretary of Defense (Acquisition, Technology, and Logistics) as the Defense Logistics Executive. The memorandum states that the Defense Logistics Executive shall have the authority to make changes necessary to integrate the global supply chain and, in coordination with the Chairman of the Joint Chiefs of Staff, prepare any directives, instructions, and decision memos; and suggest legislative changes. After this memorandum was issued, U.S. Transportation Command established a DPO management structure consisting of an Executive Board, a Distribution Transformation Task Force, a steering group, and working groups to oversee and manage the DPO’s improvement initiatives. This management structure includes representatives from OSD, the Joint Staff, the combatant commands, the military services, and the Defense Logistics Agency.

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In December 2004, DOD issued its Logistics Transformation Strategy. The strategy was developed at the direction of the department's fiscal year 2006 Strategic Planning Guidance. The guidance directed the Under Secretary of Defense (Acquisition, Technology, and Logistics) to reconcile three logistics concepts—force-centric logistics enterprise, sense and respond logistics, and focused logistics—into a coherent transformation strategy. Force-centric logistics enterprise is OSD's midterm concept (2005-2010) for enhancing support to the warfighter, and it encompasses six initiatives.<sup>4</sup> Sense and respond logistics is a future logistics concept developed by the department's Office of Force Transformation that envisions a networked logistics system that would provide joint strategic and tactical operations with predictive, precise, and agile support. Focused logistics is a concept for force transformation developed by the Joint Chiefs of Staff that identifies logistics challenges and capabilities needed to meet the challenges. In December 2003, the Joint Requirements Oversight Council approved the Focused Logistics Joint Functional Concept, one in a "family" of joint operating, functional, and integrating concepts that collectively depict how transformed forces will operate in the future.<sup>5</sup>

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## Recent U.S. Transportation Command and Army Initiatives to Address Supply Distribution Problems

In March 2004 testimony before the Subcommittee on Readiness, House Armed Services Committee, senior officials of U.S. Transportation Command and the Army highlighted continuing initiatives aimed at addressing supply distribution problems.<sup>6</sup> One initiative highlighted by U.S. Transportation Command was the establishment of a deployment and distribution operations center to assist U.S. Central Command with distribution. During Operation Iraqi Freedom, commanders at the senior

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<sup>4</sup> These six initiatives are (1) depot maintenance partnership, (2) condition-based maintenance plus, (3) total life cycle systems management, (4) end-to-end distribution, (5) executive agents, and (6) enterprise integration.

<sup>5</sup> As approved by the Joint Requirements Oversight Council, the Focused Logistics Joint Functional Concept defines seven capabilities needed to effectively project and sustain military forces: (1) joint deployment/rapid distribution, (2) agile sustainment, (3) operational engineering, (4) multinational logistics, (5) force health protection, (6) information fusion, and (7) joint theater logistics management.

<sup>6</sup> Testimony of Major General Robert Dail, Director of Operations, U.S. Transportation Command, and Lieutenant General Claude V. Christianson, Deputy Chief of Staff for Logistics, United States Army, before the Subcommittee on Readiness, House Armed Services Committee on March 30, 2004. Major General Dail was subsequently promoted to lieutenant general and assigned to the position of Deputy Commander, U.S. Transportation Command.

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levels were not able to prioritize their needs and make decisions in the early stages of the distribution process because they did not know what was being shipped to them. The result was an overburdened and overtasked transportation and distribution system. The operations center was established at Camp Arifjan, Kuwait, in January 2004 and placed under the tactical control of the Commander, U.S. Central Command. Its mission was to help coordinate the movement of materiel and forces into the theater of operations by confirming the combatant commander's deployment and distribution priorities; validating and monitoring theater air and surface transportation requirements; providing asset visibility; setting the conditions for the return of materiel from the theater; and synchronizing the forces, equipment, and supplies arriving in theater with critical theater lift and theater infrastructure limitations. The operations center acquired a workforce of approximately 60 personnel provided by U.S. Transportation Command and other DOD components.

A second initiative highlighted by U.S. Transportation Command was improving the interoperability of the information technology systems supporting distribution. In his testimony, the senior U.S. Transportation Command official noted that there were more than 200 information technology systems supporting distribution and that the lack of interoperability among these systems during Operation Iraqi Freedom had contributed to problems such as poor asset visibility. Improved interoperability, he stated, would provide the warfighter greater reliability and predictability for sustainment supplies. In July 2004, OSD's Deputy Under Secretary of Defense for Logistics and Materiel Readiness and the Joint Staff's Director for Logistics designated U.S. Transportation Command, as DPO, to be the office with primary responsibility for overseeing departmentwide efforts to improve information technology support for distribution, including sustainment and force movement. The term used to describe this role is "portfolio management." Specifically, the Command was assigned to (1) develop a process for managing its portfolio of information technology systems by August 2004; (2) identify potential returns, goals, outcomes, and draft performance requirements by the end

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of 2004; and (3) develop an information technology transition plan by the end of 2005 to guide information technology investments.<sup>7</sup>

In the March 2004 testimony, the Army official identified four focus areas for the service's initiatives to improve logistics support, including supply distribution. The four focus areas were connecting Army logisticians, improving force reception, modernizing theater distribution, and integrating the supply chain. Following are the Army initiatives we reviewed under three of these four focus areas.<sup>8</sup>

- To connect logisticians, the Army stated that it would acquire two systems: the Very Small Aperture Terminal, a compact satellite to replace line-of-sight communications to send and monitor requisitions for supplies from the battlefield; and the Mobile Tracking System, a satellite-based, two-way text messaging system installed in trucks to provide position locations and allow truck drivers to communicate with a dispatcher. According to the Army, these systems will improve logisticians' visibility of the status of their supply requisitions. During Operation Iraqi Freedom, logisticians lost confidence in the supply system because their ability to monitor requisitions was impaired by a lack of reliable communications.

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<sup>7</sup> As directed by section 332 of the Fiscal Year 2005 National Defense Authorization Act, DOD is changing its approach to business system modernization. The Secretary of Defense is required under the authorization act to develop an enterprise architecture for defense business systems not later than September 30, 2005. Beginning October 1, 2005, business systems modernization investments over \$1 million are to be certified as being in compliance with the enterprise architecture. The Under Secretary of Defense (Acquisition, Technology, and Logistics) is the certifying authority for the Weapon System Lifecycle Management and Materiel Supply and Services business mission areas, including the portfolio of distribution systems. The Defense Business Systems Management Committee also must approve the certification.

<sup>8</sup> Under its fourth focus area—integrating the supply chain—the Army stated that it would develop integrated processes and an information systems architecture through the integration of three capabilities—the Logistics Modernization Program, the Global Combat Service Support-Army, and Product Life Cycle Management Plus—into its Single Army Logistics Enterprise. While the outcome of this enterprise initiative will have an impact on distribution, its purpose within the context of this focus area is on incorporating certain standardized business practices such as performance-based agreements. Therefore, we have excluded this enterprise initiative from our review. As part of our ongoing work on DOD business systems modernization, we have reviewed aspects of this enterprise initiative. See GAO, *DOD Business Systems Modernization: Billions Continue to Be Invested with Inadequate Management Oversight and Accountability*, [GAO-04-615](#) (Washington, D.C.: May 27, 2004) and *DOD Business Systems Modernization: Limited Progress in Development of Business Enterprise Architecture and Oversight of Information Technology Investments*, [GAO-04-731R](#) (Washington, D.C.: May 17, 2004).

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- To improve force reception, the Army stated that it would develop a “theater opening” capability—a headquarters deployed at the same time as combat forces to provide a single command-and-control element focused on joint force generation and sustainment—to rapidly receive military forces into a theater of operations and accomplish such tasks as maintaining real-time visibility of personnel and equipment en route to the theater; execute joint reception, staging, and onward movement operations, including the care and feeding of the forces and force protection; and serve as a joint theater logistics headquarters when augmented with additional capabilities. During the onset of Operation Iraqi Freedom, the Army did not have a logistics organization designed, trained, and equipped to receive forces in the theater. As a result, critical force reception capabilities were often missing, and combat units were tasked to receive forces, provide logistics support, and move elements into assembly areas.
  - To modernize theater distribution, the Army stated that it would require pure packing (also called pure palleting), which is the consolidation of air cargo pallets for shipment to a single supply support activity, streamlining the theater distribution process. Pure pallets contain materiel destined solely for a single organization and do not require sorting and repackaging at interim distribution nodes. During the early stages of Operation Iraqi Freedom, mixed pallets had to be unpacked, sorted, and repacked in the theater of operations before they were shipped forward, which lengthened the delivery time.

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## Accountability and Authority for Improving the Distribution System Remain Unclear

Although the Secretary of Defense’s 2003 memorandum designated new organizational responsibilities in the logistics area, accountability and authority for improving the distribution system remain unclear. The Secretary’s intent in designating U.S. Transportation Command as DPO has been a point of dispute between the Command and OSD, and almost 2 years later no directive has been issued to define the DPO’s role. In addition, the DPO’s roles and responsibilities may overlap with those of other organizations that are involved in deployment and distribution. Moreover, DOD’s current strategy to transform logistics lacks elements of an effective strategic plan and does not provide clear direction to guide and synchronize distribution improvement initiatives based on a common vision of an end-to-end distribution system for future military operations. With no single entity accountable for optimizing the distribution system’s overall efficiency and interoperability and without an effective transformation strategy to guide and synchronize improvement efforts toward a common vision of a future distribution system, efforts by DOD components to improve the distribution system will likely remain fragmented and limited in scope rather than coordinated and systemic.

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## Intent of the Secretary of Defense in Designating the DPO Is in Dispute

Although U.S. Transportation Command has initiated actions to implement its DPO responsibilities and has made progress addressing supply distribution problems, it has been unable to reach agreement with OSD on the intent of the Secretary of Defense's DPO designation. As a result, accountability and authority for improving the distribution system remain unclear. The Secretary of Defense's memorandum, in designating U.S. Transportation Command as DPO, directed the DPO to draft a directive to define the DPO's authority, accountability, resources, and responsibility to improve distribution, and to submit this draft directive within 30 days of the date of the Secretary's memo. As directed by the Secretary, U.S. Transportation Command drafted a directive. The draft directive states that the DPO serves as the single entity to direct and supervise execution of the global distribution system on behalf of the Secretary of Defense. Subject to the direction and control of the Secretary and the Defense Logistics Executive, such directive authority includes promulgating and disseminating directives, regulations, instructions, and decision memorandums and taking other actions, as appropriate, to carry out DPO responsibilities, the draft directive states.

OSD officials in the Office of the Under Secretary of Defense (Acquisition, Technology, and Logistics) and the Office of General Counsel reviewed the draft directive and determined that it asked for DPO authorities that conflicted with the services' statutory authorities to supply and support their forces, and with the regional combatant commanders' statutory authorities to direct theater distribution within their areas of responsibility. During an interview, a representative from the OSD General Counsel's office stated that the draft directive would have required statutory changes and that the Secretary of Defense's memorandum did not clearly call for such sweeping changes.

OSD then prepared its own version of the DPO directive, placing the DPO in an advisory role to the Defense Logistics Executive, with responsibility for studying the distribution system and making recommendations to the Defense Logistics Executive on how to improve the efficiency of the system. Under OSD's revised directive, the Defense Logistics Executive rather than the DPO would be accountable for improving the distribution system.

U.S. Transportation Command disagreed with the OSD-revised directive, contending that it did not implement the Secretary of Defense's designation of the DPO as the single entity to direct and supervise the execution of the distribution system. In a July 2004 letter to the Principal Deputy Under Secretary of Defense (Acquisition, Technology, and



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Logistics), the Commander, U.S. Transportation Command, wrote that the OSD-revised directive (1) diluted the authority originally vested by the Secretary of Defense in the DPO; (2) did not vest the DPO with sufficient authority to make enduring factory-to-foxhole distribution improvements; and (3) could inhibit services, commands, and other distribution stakeholders in fully cooperating with the DPO's efforts to drive necessary changes. U.S. Transportation Command and OSD continued to work collaboratively until the end of calendar year 2004 to get the draft directive back on track but subsequently decided not to continue pursuing a DPO directive. OSD issued guidance defining the role of the Defense Logistics Executive. The instruction, which does not mention the DPO, states that the Defense Logistics Executive shall monitor distribution process improvements to ensure consistency with the requirements of the defense logistics and global supply chain management system.

We have previously reported that key practices for successful transformation include leadership that sets the direction of transformation and assigns accountability for results, and the use of crosscutting implementation teams, which can provide the day-to-day management needed for success.<sup>9</sup> In recent testimonies on DOD's business transformation, we underscored the importance of these elements and stated that DOD has not routinely assigned accountability for performance to specific organizations or individuals who have sufficient authority to accomplish goals.<sup>10</sup> In March 2005, DOD characterized the DPO as the department's single entity to revolutionize the distribution system, working with services and combatant commanders in synchronizing the distribution of personnel and equipment from factory to foxhole.

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<sup>9</sup> GAO, *Results-Oriented Cultures: Implementation Steps to Assist Mergers and Organizational Transformations*, [GAO-03-669](#) (Washington, D.C.: July 2, 2003) and *Military Transformation: Clear Leadership, Accountability, and Management Tools Are Needed to Enhance DOD's Efforts to Transform Military Capabilities*, [GAO-05-70](#) (Washington, D.C.: Dec. 17, 2004).

<sup>10</sup> GAO, *Department of Defense: Further Actions Needed to Establish and Implement a Framework for Successful Financial and Business Management Transformation*, [GAO-04-551T](#) (Washington, D.C.: Mar. 23, 2004), *DOD'S High Risk Areas: Successful Business Transformation Requires Sound Strategic Planning and Sustained Leadership*, [GAO-05-520T](#) (Washington, D.C.: Apr. 13, 2005), and *Defense Management: Key Elements Needed to Successfully Transform DOD Business Operations*, [GAO-05-629T](#) (Washington, D.C.: Apr. 28, 2005).

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## DPO Roles and Responsibilities May Overlap With Those of Other Organizations in the Distribution System

The many designations of logistics responsibility that DOD has executed in the past few years, coupled with existing conflicts in joint doctrine regarding who is responsible for synchronizing theater distribution, may have created overlaps in roles and responsibility. Specifically, the DPO's roles and responsibilities may overlap with those of U.S. Joint Forces Command, which has been designated as the Joint Deployment Process Owner, and with those of the Defense Logistics Agency, which is the Executive Agent for the supply chain management of certain classes of supply. In a prior report, we have noted existing conflicts in joint doctrine regarding responsibility for theater distribution.

### Joint Deployment Process Owner

The Secretary of Defense, in a 1998 memorandum, designated the Joint Forces Command as the Joint Deployment Process Owner. The principal role and focus of the Joint Deployment Process Owner is to (1) maintain overall effectiveness while improving the joint deployment and redeployment processes so that all supported joint force commanders and supporting DOD components can execute them more effectively and efficiently and (2) resolve joint deployment and redeployment process problems that span functional and organizational boundaries. The DPO, however, was explicitly directed by the Secretary of Defense to improve the overall efficiency and interoperability of deployment, sustainment, and redeployment support.

### Executive Agent for Supply Classes

In 2004, the Defense Logistics Agency became Executive Agent for bulk petroleum, subsistence (food and water), and medical items.<sup>11</sup> By the end of 2005, the Defense Logistics Agency is also expected to become the Executive Agent for clothing and individual equipment as well as for construction materials. Executive agent is a governance structure used within DOD to ensure collaboration and cooperation among DOD components. The Defense Logistics Agency's role as Executive Agent includes distribution responsibilities that may overlap with those of the DPO. For example, as Executive Agent for bulk petroleum, the Defense Logistics Agency is responsible for end-to-end distribution, to include establishing equipment standards and interoperability requirements in collaboration with the military services and the combatant commands. As Executive Agent for subsistence, it is responsible for, among other things, distributing subsistence products throughout the supply chain and

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<sup>11</sup> DOD Directive 5101.8, DOD Executive Agent (DoD EA) for Bulk Petroleum, August 11, 2004; DOD Directive 5101.9, DOD Executive Agent (DoD EA) for Medical Materiel, August 23, 2004; DOD Directive 5101.10, DOD Executive Agent (DoD EA) for Subsistence, September 27, 2004.

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delivering items to locations as mutually agreed to with the military services and the combatant commands. As Executive Agent for medical items, it is responsible for managing the distribution of surge and sustainment materiel from commercial sources to the theater of operations, and establishing in-theater operational relationships to ensure distribution of medical items to support tactical situations.

### Conflicting Theater Doctrine

We have previously reported that conflicting doctrine impeded the establishment of a distribution system capable of delivering supplies to the warfighter smoothly and on time.<sup>12</sup> Currently, joint doctrine institutionalizes separate management of sections of the distribution system by placing responsibility for logistics support outside the theater with the individual services and the U.S. Transportation Command. However, it also requires the theater commander to synchronize all aspects of logistics necessary to support the mission. This conflicting doctrine is contrary to DOD's principle of centralized management for theater distribution. An SAIC study also reports that joint doctrine does not contain any specific or prescriptive guidance on how the combatant commander might ensure a seamless distribution process.<sup>13</sup> We recommended in our April 2005 report that the Secretary of Defense revise current joint logistics doctrine to clearly state, consistent with policy, who has responsibility and authority for synchronizing the distribution of supplies from the United States to deployed units during operations. While DOD agreed with the intent of this recommendation, it did not commit to taking any specific actions.

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### Logistics Transformation Strategy Is Lacking Key Elements to Guide and Synchronize Improvements to the Distribution System

Although DOD's current strategy to transform logistics provides a crosswalk of the department's various logistics concepts and initiatives back to the approved Focused Logistics Joint Functional Concept, the strategy does not provide clear direction to guide and synchronize efforts to improve the distribution system across the department. For example, it lacks information on specific performance goals, programs, milestones, and resources to achieve focused logistics capabilities. OSD and Joint Staff officials agreed that the document does not provide elements essential for an effective strategic plan. U.S. Transportation Command officials also noted that the current strategy does not address joint

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<sup>12</sup> GAO-05-275, p. 39.

<sup>13</sup> SAIC, *Objective Assessment of Logistics in Iraq*, Contract No. GS-10F-009IL, Task Order 73510 (March 2004), Chapter 6.

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logistics governance, roles and responsibilities, and accountability to guide the DPO's efforts to improve the overall efficiency and interoperability of the distribution system.

According to OSD officials, shortcomings in the Logistics Transformation Strategy will be addressed in a follow-on document called the Focused Logistics Roadmap. However, according to OSD officials, the contractor initially assigned the task of developing the roadmap did not perform well, and there have been difficulties in obtaining performance metrics and budget data from DOD components on their logistics initiatives. OSD missed its February 2005 target date for issuing the roadmap. This effort was restarted in March 2005. OSD hired a new contractor, and the Under Secretary of Defense (Acquisition, Technology, and Logistics) issued new guidance to the DOD components directing them to provide data needed to complete the analysis. OSD officials estimated they would publish the roadmap by August 2005.

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## Two Initiatives Have Shown Promise, but the Future of Three Other Initiatives Is Less Certain

Two of DOD's five initiatives we reviewed have been successful enough to warrant application to future operations, but the future of the other three are less certain because they lack funding or other support. Two promising initiatives that have been implemented are the establishment of a deployment and distribution operations center in Kuwait and the use of pure packing for air shipments to Iraq. According to DOD, both these initiatives helped improve the flow of supplies into and around the theater of operations for Operation Iraqi Freedom. On the basis of the success of these initiatives, U.S. Transportation Command is working with other regional combatant commands to establish a deployment and distribution operations center within their organizations, and the Army is incorporating its pure packing initiative into its regulations for application Army-wide. The other three initiatives we reviewed are facing challenges to their implementation that raise concerns about when they will be completed. The Army has not fully funded two new communications and tracking systems to better connect logisticians on the battlefield, placing their fielding schedules into question. The delay increases the risk that some future deploying units will lack a capability to effectively submit and monitor their supply requisitions. In addition, the Army is making progress toward developing a theater opening capability, but it is uncertain whether this capability will be deployed at the same time as combat forces in future conflicts. Finally, U.S. Transportation Command is facing challenges in improving the interoperability of information technology supporting the distribution system.

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## Deployment and Distribution Operations Center

On the basis of the success of the deployment and distribution operations center in Kuwait, U.S. Transportation Command is leading an effort to rewrite military doctrine to establish a similar organization within each of the regional combatant commands. According to U.S. Transportation Command, the operations center in Kuwait succeeded at

- shifting use of airlift to sealift to reduce costly airlift requirements and to free up airlift capacity;
- moving units from point of origin to final destination rather than through intermediate locations with time-consuming layovers (a concept referred to as “single ticket”);
- testing satellite tracking of containers and trucks; and
- improving distribution management, including the use of pure pallets and containers, developing a container management plan, and improving the retrograde of Army materiel.

U.S. Transportation Command reported that the deployment and distribution operations center in Kuwait produced cost avoidance of \$360 million from January 2004 through March 2005. We did not independently verify these cost data. According to the Command’s data, about \$312 million, or 87 percent, of the cost avoidance was attributed to shifting the mode of strategic transportation from airlift to sealift in conjunction with U.S. Central Command’s shipping priorities.

According to U.S. Transportation Command officials, the effectiveness of the operations center in Kuwait and favorable reports following subsequent tests of the concept in Korea and the U.S. Pacific Command have prompted other regional combatant commanders to request the same capability. The U.S. Transportation Command is working with the U.S. Joint Forces Command to incorporate the deployment and distribution operations center into joint doctrine as a regional combatant command organization.<sup>14</sup> At the time of our review, this effort was in the early stages. As the deployment and distribution operations center is currently envisioned, the regional combatant command would provide a core staff from its own workforce, and this core staff would be augmented with personnel from other military organizations as the intensity of military operations increased. The number of core staff has not been determined, but it could range from 10 in U.S. Southern Command to perhaps 20 in U.S. European Command and U.S. Pacific Command, according to U.S.

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<sup>14</sup> U.S. Joint Forces Command is responsible for developing joint force doctrine.

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Transportation Command officials. The regional combatant command would be responsible for acquiring a core workforce with the right skill mix and for providing them with the equipment and the necessary training.

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## Pure Packing

In January 2004, U.S. Central Command requested that all air shipments entering its area of responsibility be pure packed. The Army and Defense Logistics Agency worked to implement pure packing at Defense Distribution Center Depots in the United States, and in April 2004, the Army issued a message to establish pure packing as a servicewide policy. Army officials said they plan to amend service regulations to reflect this policy change. The switchover to pure packing increased the time required to build pallets at the Defense Distribution Center Depots but reduced the workload in the theater of operations and reduced the overall delivery time to the warfighter. According to an Army official, pure packing contributed to a decrease in requisition wait time for most shipments from over 40 days in October 2003 to consistently below 25 days since February 2005.<sup>15</sup> We did not independently verify these requisition wait time data. Requisition wait time is the amount of time spent from when a logistician in the battlefield orders an item from the supply system until the item is received. According to this official, the Army set a requisition wait-time goal of 20 days or less for all Army cargo moving by air pallet to Iraq during Operation Iraqi Freedom sustainment operations. To meet the more complex and labor-intensive requirements associated with pure packing and, concurrently, to address the surge of work at its distribution centers, the Defense Logistics Agency hired an additional 800 employees, added shifts, redistributed workloads, and authorized increased overtime. To absorb these costs, the Defense Logistics Agency increased its overhead and surcharges to the Army. Neither the Defense Logistics Agency nor the Army could provide information on the total cost of implementing pure packing.

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## Acquisition of Systems to Connect the Logistician

**Very Small Aperture Terminal:** The Army has identified a requirement for 775 Very Small Aperture Terminals. (See fig. 1.) Although the systems will be fielded primarily to active brigades, each National Guard and Reserve brigade will receive one system and then receive additional

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<sup>15</sup> One exception to this continual decrease was the acceleration of hostilities from May to August 2004 that resulted in an upward increase in requisition wait time for most shipments to almost 40 days.

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systems at Army training centers prior to deployment at the same level as the active units. Upon returning from their deployment, Guard and Reserve units will turn in the additional systems. Fielding began in July 2004 and will continue through fiscal year 2007. Seven units have been fully fielded with 106 systems and four units have been partially fielded with 64 systems as of June 2005. The unit cost is \$75,000, and the total funding requirement for the 775 systems is \$256.6 million through fiscal year 2011. However, funding data provided by the Very Small Aperture Terminal program office show that the program is underfunded by a total of \$21.4 million for fiscal years 2005 and 2006, or 24 percent of the \$90.3 million in total funding requirements for these 2 years, placing the fielding schedule in question. Program officials said the current funding level would delay fielding the systems. They noted that the unfunded requirements have been prioritized and included in the Army's budgeting for its modularity efforts. According to a program official, additional funds from fiscal year 2005 supplemental appropriations may be provided to reduce the shortfall. In addition, according to an Army official, logisticians are concerned about the future of the system in light of the Army's Warfighter Information Network-Tactical (WIN-T) system currently under development. Win-T is the Army's future high-speed, high-capacity communications network, which will link Army units with higher levels of command and provide video, data, imagery, and voice services. The Army is scheduled to have initial capability on the system in 2010. The Win-T system would duplicate many of the functions of the Very Small Aperture Terminal and could potentially result in reduced funding for this system, this official said.

**Figure 1: Very Small Aperture Terminal**



Source: Very Small Aperture Terminal Program Office.

A soldier with the 3rd Infantry Division performs maintenance on a Very Small Aperture Terminal at the National Training Center, Fort Irwin, California.

**Mobile Tracking System:** Although the Army originally identified a total requirement for 47,000 Mobile Tracking Systems, the Army now plans to acquire 18,629 systems to meet basic needs, which the Army refers to as a “good enough” fielding authorization. (See fig. 2.) According to a May 2004 memorandum signed by the Army’s Deputy Chief of Staff for Operations, fielding the Mobile Tracking System at the “good enough” level can be done with an acceptable level of risk. The memo did not define “acceptable level of risk,” but it added that to mitigate risk, the Army would develop a capability to move the systems between vehicles rather than permanently mounting the systems. Requirements for active and reserve forces are the same, with priority fielding to units deploying to Iraq. The fielding schedule calls for all active and reserve components to be fielded in 3 years. The system would be installed on one of every two military police vehicles; one of every five trucks; all ground ambulances; all movement control/dispatchers; and all command and control elements



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of a logistics unit. The Mobile Tracking System program has fielded 7,500 systems to 14 major units as of June 2005. Each unit costs an estimated \$17,000 for the original version and \$21,000 for an enhanced version that includes the capability to read radio frequency identification tags placed on in-transit cargo, an enhanced Global Positioning System, and a panic button. The total funding requirement at the “good enough” level is \$455.2 million through fiscal year 2011. However, funding data provided by the program office show the program is underfunded by a total of \$39 million for fiscal years 2005 and 2005, or 35 percent of the \$110.3 million in total requirements for these 2 years, placing the fielding schedule in question. Program officials said some authorized units would not be receiving systems at the current funding level. According to a program official, additional funds from fiscal year 2005 supplemental appropriations may be provided to reduce the shortfall.

**Figure 2: Mobile Tracking System**



Source: Top photo: Fort Lewis, Washington; bottom photo: Comtech Mobile Datacom Corp.

Top photo: A soldier uses the Mobile Tracking System mounted in a vehicle. Bottom photo: Components of the Mobile Tracking System, displayed left to right on the hood of the vehicle, include a cover for the transceiver, a global positioning system, a printer, a transceiver, a laptop, and a transit case.

## Theater Opening Capability

Although the Army is making progress developing a theater opening capability, it is uncertain whether this capability, when fully developed, will be deployed at the same time as combat forces in future conflicts.

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During the early stages of Operation Desert Shield/Desert Storm and Operation Iraqi Freedom, DOD's priority was to deploy combat forces prior to logistics support, resulting in theater distribution problems. In addition, we noted that most of the units the Army is converting to provide this capability are in the reserve component, raising questions about whether these units could be mobilized quickly enough to be deployed in the early deployment stages. Army plans call for converting seven existing transportation units that would be trained and equipped to provide a theater opening capability, with the first units to begin conversion in September 2006. Of these seven units, four are in the Army Reserve, one is in the National Guard, and two are active component units.

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## Interoperable Information Technology

The U.S. Transportation Command has met the time frames set by OSD and the Joint Staff for (1) developing a process to manage the group of information technology systems supporting distribution and (2) identifying potential returns, goals, outcomes, and draft performance requirements. In August 2004, the Command issued its Distribution Portfolio Management Process setting out the roles, processes, and information needed to determine and adjust the set of distribution and force movement systems to support the Logistics Domain.<sup>16</sup> It also provided an estimate of the resources—24 government personnel and fiscal year 2005 funding of \$11.93 million for contractor personnel, office space, travel, and consultants—it needed to accomplish the portfolio management taskings and timelines established by OSD and the Joint Staff. In December 2004, U.S. Transportation Command identified the potential returns, goals, and outcomes for portfolio management and drafted performance requirements for the portfolio. In March 2005, U.S. Transportation Command published an overview of the joint distribution architecture that provided a blueprint for future distribution information technology systems that are interoperable and enable an end-to-end distribution capability.

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<sup>16</sup> On May 12, 2005, the Under Secretary of Defense (Acquisition, Technology, and Logistics) realigned his offices to better support business transformation and in doing so he consolidated the Logistics Domain and Acquisition Domain into a single directorate—Supply Chain Systems Transformation Directorate. The new directorate is responsible for aligning business capabilities to DOD goals, allocating resources, and overseeing policy in support of two newly created business mission areas—Weapon System Lifecycle Management and Materiel Supply and Service Management. U.S. Transportation Command officials believe that the portfolio of distribution systems previously within the Logistics Domain now lies within both of the two new business mission areas.

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Identifying Systems to Be Included in the Distribution Portfolio

Although U.S. Transportation Command has met the milestones for these two tasks, it has been delayed in issuing a transition plan to guide DOD's investment strategy for these systems. The transition plan was initially due by the end of calendar year 2005, but the Command's latest estimate for completion is June 2006. Command officials cited delays in receiving fiscal year 2005 funding for this effort as a reason for slipping the delivery date for the information technology transition plan. According to U.S. Transportation Command officials, they requested funding from OSD for DPO activities in August 2004, but did not receive funding approval until February 2005. In addition, the Command's ability to execute an effective information technology transition plan by June 2006 depends on (1) gaining agreement from DOD components on which information technology systems should be included in the distribution portfolio, (2) obtaining from DOD components the technical information on the systems and data bases in the distribution portfolio, and (3) completing an end-to-end supply chain analysis, which requires input from the Defense Logistics Agency and Joint Forces Command.

U.S. Transportation Command has been unable to gain agreement from DOD components that own and fund information technology systems on which systems should be in the distribution portfolio. The Command, in conjunction with OSD, identified approximately 500 information technology systems DOD-wide that they believe belong in the distribution portfolio. According to Command officials, DOD components have agreed with the selection of about 80 of the systems thus far, and discussions are continuing regarding other systems. Of the approximately 500 systems identified, 128 belonged to the Defense Logistics Agency. However, Defense Logistics Agency officials told us that they believe only 2 of these 128 systems belong in the distribution portfolio, and that the others are (1) not information systems, (2) not within the scope of the distribution portfolio, or (3) being absorbed into the agency's business system modernization efforts, also referred to as enterprise resource planning. According to U.S. Transportation Command officials, the Defense Logistics Agency and the services do not agree that enterprise systems belong in the DPO's distribution portfolio, but rather that they should remain exclusively within their respective agency or service portfolios. Command officials noted that the enterprise systems will eventually consolidate numerous legacy logistics systems, many of which have distribution-related activities.

We have previously reported that DOD lacks effective management oversight, control, and accountability over its business system investments and that the manner in which business system funding is controlled

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hampers the development and implementation of broad-based, integrated business system solutions to address DOD-wide problems.<sup>17</sup> Each military service and defense agency receives its own funding and is largely autonomous in deciding how to spend these funds, thereby enabling multiple system approaches to common problems. To improve management oversight, we have recommended that Congress consider appropriating funds to operate, maintain, and modernize DOD's business systems to domain leaders rather than the military services and defense agencies. DOD disagreed with this recommendation, noting that the portfolio management process, including investment review boards, would provide appropriate control and accountability over business system investments. While the establishment of investment review boards is consistent with our previous recommendations, we continue to believe that appropriating funds for DOD business systems to the domains will significantly improve accountability over business system investments.

#### Obtaining Technical Data on Systems and Data Bases

If U.S. Transportation Command can reach agreement with the DOD components on which information technology system should belong in the distribution portfolio, it will still have to collect and analyze a substantial amount of technical data on the individual systems and the data bases they manage in order to complete its information technology analysis and develop its transition plan by June 2006. According to U.S. Transportation Command officials, if they do not have the technical information on these systems and data bases by September 2005, it will be difficult to complete the information technology transition plan by June 2006 and execute its responsibilities for portfolio management.

#### Completing an End-to-End Supply Chain Analysis

This end-to-end supply chain analysis is aimed at identifying gaps that need to be bridged and areas where systems need to be made interoperable. This analysis is being performed by U.S. Transportation Command, the Defense Logistics Agency, and Joint Forces Command, with each organization responsible for separate components of the analysis. According to U.S. Transportation Command's timeline, the supply chain analysis must be completed by September 2005 to allow it time to complete its overall analysis by February 2006 and develop its investment technology transition plan by the new June 2006 target date. Based on information provided by the DPO, however, it is uncertain whether the supply chain analysis will be completed by September 2005

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<sup>17</sup> GAO-04-615.

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due to the multiple organizations involved and issues concerning coordination and funding of the separate analysis efforts.

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## Conclusions

A lack of clear accountability and authority for improving the distribution system presents a significant challenge to DOD in its efforts to correct long-standing problems that date back at least to the Persian Gulf War. The Secretary of Defense's decision in 2003 to designate U.S. Transportation Command as the DPO appeared to signal that the department would take a more coordinated and systemic approach to address supply distribution problems. Moreover, as recently as March 2005, DOD characterized the DPO as the department's single entity to revolutionize the distribution system, working with services and combatant commanders in synchronizing the distribution of personnel and equipment from factory to foxhole. However, DOD's ability to make coordinated, systemic improvements that cut across the multiple organizations involved in distribution is stymied because of problems in clarifying who has accountability and authority for improving the distribution system. U.S. Transportation Command has asserted that the DPO is the single accountable entity, whereas OSD has taken the position that the Defense Logistics Executive is the accountable entity and the DPO has an advisory role. The issue of accountability is further confused by OSD guidance that is silent on the role of the DPO and states that the role of the Defense Logistics Executive is to "monitor" improvements in the distribution system. In addition, the Defense Logistics Agency is responsible for distribution functions in its role as executive agent for specified supply classes, and Joint Forces Command is responsible for resolving deployment and redeployment process problems in its role as the Joint Deployment Process Owner. In both cases, these roles and responsibilities may overlap with those of the DPO. Another underlying problem that stymies DOD's ability to improve distribution is the lack of an effective logistics transformation strategy to guide and synchronize improvement efforts toward a common vision of a future distribution system. Until DOD defines which single entity has accountability and authority for improving the distribution system and develops an effective transformation strategy, DOD will face challenges in taking a coordinated and systemic approach to improving distribution and may experience continued problems in providing timely and effective logistics support to the warfighter.

Recognizing shortfalls in the distribution process, U.S. Transportation Command and the Army have embarked upon some promising and potential solutions to these issues. However, the Army has not fully funded

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its requirements for communications and tracking systems. The delay increases the risk that some future deploying units will lack a capability to effectively submit and monitor their supply requisitions.

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## Recommendations for Executive Action

To enhance DOD's ability to take a more coordinated and systemic approach to improving the supply distribution system, we recommend that the Secretary of Defense take the following three actions:

- Clarify the scope of responsibilities, accountability, and authority between the DPO and the Defense Logistics Executive as well as the roles and responsibilities between the DPO, the Defense Logistics Agency, and Joint Forces Command.
- Issue a directive instituting these decisions and make other related changes, as appropriate, in policy and doctrine.
- Improve the Logistics Transformation Strategy by directing the Under Secretary of Defense (Acquisition, Technology, and Logistics) to include specific performance goals, programs, milestones, and resources to achieve focused logistics capabilities in the Focused Logistics Roadmap.

To address the current underfunding of the Very Small Aperture Terminal and the Mobile Tracking System, we recommend that the Secretary of Defense direct the Secretary of the Army to determine whether sufficient funding priority has been given to the acquisition of these systems and, if not, to take appropriate corrective action.

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## Agency Comments and Our Evaluation

In commenting on a draft of this report, the Acting Deputy Under Secretary of Defense (Logistics and Materiel Readiness) did not concur with the first two recommendations and concurred with the last two recommendations. DOD's comments are reprinted in appendix I.

DOD did not concur with our recommendations that the Secretary of Defense clarify the scope of responsibilities, accountability, and authority between the DPO and the Defense Logistics Executive, as well as the roles and responsibilities between the DPO, the Defense Logistics Agency, and Joint Forces Command; and that he issue a directive instituting these decisions and make other related changes, as appropriate, in policy and doctrine. DOD stated that it is confident that the responsibilities, accountability, and authority of the DPO exercised under the Defense Logistics Executive's guidance are clear to the DPO, the Defense Logistics Agency in its Executive Agent roles, and Joint Forces Command in its Joint Deployment Process Owner role. The department stated that it did

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not issue the U.S. Transportation Command's proposed DPO directive because its Office of General Counsel found that the proposed directive's definition of the DPO's responsibilities, accountability, and authority was inconsistent with the statutory roles and responsibilities of the secretaries of the military departments. The department also stated that the DPO has not been "stymied" by the lack of a directive—rather, that the DPO, working cooperatively with the Joint Logistics Community, has made significant progress in its DPO role.

While the department has issued directives and instructions defining responsibilities for the Defense Logistics Executive, the Defense Logistics Agency in its Executive Agent role, and the Joint Forces Command as the Joint Deployment Process Owner, it has not issued a directive on the DPO—despite the Secretary of Defense's stated interest in defining the DPO's authority, accountability, resources, and responsibility to improve distribution—in part because such a directive would be inconsistent with the statutory roles and responsibilities of the secretaries of the military departments. Although we did not evaluate the potential need for changes in statutory roles and responsibilities with respect to the distribution system, such changes may be appropriate once DOD has defined organizational responsibilities, accountability, and authority needed to enhance the department's ability to take a more coordinated and systemic approach to improving the supply distribution system. The department stated that it is confident that the scope of responsibilities, accountability, and authority of the DPO are clear, yet it did not address the specific overlaps of distribution responsibilities in its policy and doctrine that we identified. As pointed out in this report, we have identified supply chain management as a high-risk area, in part because of problems in the distribution process, and we have identified the lack of a comprehensive, integrated approach to addressing those problems. The department has characterized the DPO as its single entity in charge of revolutionizing the distribution system by working with the services and combatant commanders to synchronize the distribution of personnel and equipment from factory to foxhole. However, we believe that unless the department (1) clarifies the scope of responsibilities, accountability, and authority between the DPO and the Defense Logistics Executive, as well as the roles and responsibilities between the DPO, the Defense Logistics Agency, and Joint Forces Command; and (2) implements our prior (April 2005) recommendation to clearly state, consistent with policy, who has responsibility and authority for synchronizing the distribution of supplies from the United States to deployed units during operations, its well-intended efforts may not effectively address the department's long-standing problems in distribution.



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Regarding the department's statement that the DPO has not been stymied by the lack of a directive, we agree that progress has been made by the DPO and other DOD entities in addressing supply distribution problems, and our report identifies promising initiatives. We have modified our report to clarify that DOD is stymied in its ability to make coordinated, systemic improvements cutting across the multiple organizations involved in the distribution system. We also note that DOD initiatives such as the deployment and distribution operations center were developed as improvised solutions to logistics problems reported during Operation Iraqi Freedom. As of the time of our review, these solutions have not been instituted into policy or doctrine. Notwithstanding the progress made to date in addressing supply distribution problems, we continue to believe that DOD needs to take an institutional approach in order to avoid ambiguity about the DPO's roles and responsibilities in the future and to address the department's long-standing supply distribution problems in a coordinated and systemic fashion. A directive, along with appropriate changes in policy and doctrine, can provide the organizational and policy structure necessary for an institutional approach.

With regard to our recommendation to improve the logistics transformation strategy to include specific performance goals, programs, milestones, and resources to achieve focused logistics capabilities in the Focused Logistics Roadmap, DOD concurred that improvements are necessary in DOD's Logistics Transformation Strategy and stated that it would include these elements in the roadmap in order to achieve the focused logistics capabilities.

Regarding our recommendation to the Secretary of Defense to direct the Secretary of the Army to determine whether sufficient funding priority has been given to the acquisition of the Very Small Aperture Terminal and the Mobile Tracking System, and if not, to take corrective action, DOD concurred and stated that the Under Secretary of Defense (Acquisition, Technology, and Logistics) will direct the Secretary of the Army to determine whether sufficient funding priority has been given to the acquisition of these systems.

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## Scope and Methodology

To assess DOD's organizational structure and transformation strategy to improve the distribution system, we obtained information on the progress made by U.S. Transportation Command in implementing its role as the DPO. We discussed the accountability, authority, role, and other issues pertaining to the DPO with U.S. Transportation Command officials and reviewed a draft directive and other documents related to the DPO. We

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also discussed DPO implementation with officials from the Office of the Under Secretary of Defense (Acquisition, Technology, and Logistics), with the Joint Staff, and with the OSD Office of General Counsel. We met with the U.S. Joint Forces Command on its role as the Joint Deployment Process Owner and the Defense Logistics Agency on its role as the Executive Agent for certain classes of supply. We examined DOD's overall efforts to institute a long-term logistics strategy by reviewing DOD's December 2004 Logistics Transformation Strategy, monitoring the impending release of the Focused Logistics Roadmap, and interviewing officials from the Office of the Deputy Under Secretary of Defense (Logistics and Materiel Readiness) to obtain their perspective on problems and solutions that were taking place agencywide. We also met with officials from the OSD Office of Force Transformation, Army Logistics Transformation Agency, the Navy, and Air Force, and the Marine Corps.

To identify the status of initiatives that DOD is taking to address supply distribution issues, we focused on five initiatives that were highlighted in testimony by representatives from the U.S. Transportation Command and the Army before the Subcommittee on Readiness, House Armed Services Committee, in March 2004. Although other DOD components have important roles in the distribution system, we decided to focus on the initiatives of these two organizations because of the key roles these organizations have had in the supply distribution system for Operation Iraqi Freedom. We obtained information from the U.S. Transportation Command and the Army on the status of the five initiatives, including their purpose, funding, and fielding schedule where appropriate. Because some of the initiatives have been implemented for only a short time, we obtained limited data on their effectiveness, and we did not independently validate these data. We conducted interviews with officials from U.S.

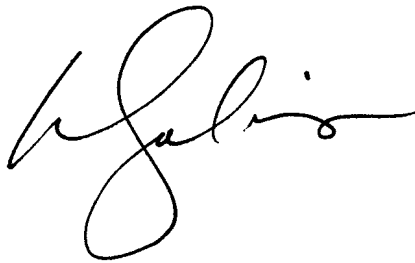
Transportation Command and from the Army's G-4 logistics directorate, the Army Materiel Command, the 3rd Infantry Division, the Combined Arms Support Command, and program offices responsible for the Very Small Aperture Terminal and the Mobile Tracking System. We also obtained pertinent information on supply distribution issues and initiatives from the Office of the Under Secretary of Defense (Acquisition, Technology and Logistics), including the Office of the Deputy Under Secretary of Defense (Logistics and Materiel Readiness); the Joint Staff logistics directorate; and the Defense Logistics Agency. We visited the U.S. Central Command area of operations to obtain a firsthand view of distribution problems in the theater and how solutions were being implemented to correct them. We reviewed prior GAO reports, DOD after action reports, and studies by other organizations concerning supply

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distribution issues that occurred during Operation Iraqi Freedom and past military operations going back to Operation Desert Shield/Desert Storm.

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We are sending copies of this report to the appropriate congressional committees, and it will be available at no charge on GAO's Web site at <http://www.gao.gov>. If you or your staff have any questions on the matters discussed in this letter, please contact me at (202) 512-8365 or [solisw@gao.gov](mailto:solisw@gao.gov). Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made major contributions to this report are listed in appendix II.

A handwritten signature in black ink, appearing to read 'W. Solis', with a stylized flourish at the end.

William M. Solis  
Director, Defense Capabilities and Management

# Appendix I: Comments From the Department of Defense



DEPUTY UNDER SECRETARY OF DEFENSE FOR  
LOGISTICS AND MATERIEL READINESS  
3500 DEFENSE PENTAGON  
WASHINGTON, DC 20301-3500

JUL 26 2005

Mr. William M. Solis  
Director, Defense Capabilities and Management  
U.S. Government Accountability Office  
Washington, D.C. 20548

Dear Mr. Solis:

This is the Department of Defense (DoD) response to the GAO Draft report, "DEFENSE LOGISTICS: DoD Has Begun to Improve Supply Distribution Operations, but Further Actions Are Needed to Sustain These Efforts," (GAO Code 350560/GAO-05-775), forwarded to DoD for comment by letter dated July 7, 2005.

The report recommends that the Secretary of Defense (1) clarify the scope of responsibilities, accountability, and authority between the Distribution Process Owner (DPO) and the Defense Logistics Executive as well as the roles and responsibilities between the DPO, the Defense Logistics Agency, and Joint Forces Command; (2) issue a Directive to institute these decisions, (3) direct that improvements be made in DoD's logistics transformation strategy, and (4) direct the Secretary of the Army to validate the funding priority of certain systems.

The Department does not concur that there is a need to clarify the responsibilities, accountability, and authority between the DPO and the Defense Logistics Executive. The Department agrees that improvements are necessary in the currently published DoD logistics transformation strategy. Detailed comments on the report are enclosed.

  
Bradley Berkson  
Acting

Enclosure:  
As stated



GAO DRAFT REPORT – DATED JULY 7, 2005  
GAO CODE 350560/GAO-05-775

**“DEFENSE LOGISTICS: DoD Has Begun to Improve Supply Distribution  
Operations, but Further Actions Are Needed to Sustain These Efforts”**

**DEPARTMENT OF DEFENSE COMMENTS  
TO THE RECOMMENDATIONS**

**RECOMMENDATION 1:** The GAO recommended that the Secretary of Defense clarify the scope of responsibilities, accountability, and authority between the Distribution Process Owner (DPO) and the Defense Logistics Executive (DLE) as well as the roles and responsibilities between the DPO, the Defense Logistics Agency (DLA), and Joint Forces Command (JFCOM).

**RESPONSE:** Non-Concur. The DLE and the DPO are clear on their relationship and their respective responsibilities, accountability, and authority. The Department’s Office of the General Counsel found that the USTRANSCOM-proposed chartering directive that would have defined the DPO responsibilities was inconsistent with the statutory roles and responsibilities of the Secretaries of the Military Departments. Accordingly, that directive was not issued. However, the DPO has not been “stymied” by this lack of a directive – rather, the DPO, working cooperatively with the Joint Logistics Community, has established strategy, implemented initiatives to improve the Defense distribution system, instituted metrics to measure progress, and overall has made significant progress in its DPO role. The Department is confident that responsibilities, accountability, and authority of the DPO exercised under the DLE’s guidance are clear to the DPO, the Defense Logistics Agency in its Executive Agent roles, and Joint Forces Command in its Joint Deployment Process Owner role.

**RECOMMENDATION 2:** The GAO recommended that the Secretary of Defense issue a directive instituting the above decisions and make other related changes, as appropriate, in policy and doctrine.

**RESPONSE:** Non-Concur. The Department’s Office of the General Counsel found that the USTRANSCOM-proposed chartering directive that would have defined the DPO responsibilities was inconsistent with the statutory roles and responsibilities of the Secretaries of the Military Departments. Accordingly, that directive was not issued. However, the DPO has not been “stymied” by this lack of a directive – rather, the DPO, working cooperatively with the Joint Logistics Community, has established strategy, implemented initiatives to improve the Defense distribution system, instituted metrics to measure progress, and overall has made significant progress in its DPO role.

**RECOMMENDATION 3:** The GAO recommended that the Secretary of Defense direct the Under Secretary of Defense (Acquisition, Technology, and Logistics) to include specific performance goals, programs, milestones, and resources to achieve focused logistics capabilities in the Focused Logistics Roadmap.

**RESPONSE:** Concur. The Focused Logistics Roadmap will include specific performance goals, programs, milestones, and resources to achieve focused logistics capabilities.

**RECOMMENDATION 4:** The GAO recommended that the Secretary of Defense direct the Secretary of the Army to determine whether sufficient funding priority has been given to the acquisition of the Very Small Aperture Terminal and the Mobile Tracking System, and, if not, take appropriate corrective action.

**RESPONSE:** Concur. The USD (AT&L) will direct the Secretary of the Army to determine whether sufficient funding priority has been given to acquisition of stated systems.

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# Appendix II: GAO Contact and Staff Acknowledgments

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## GAO Contact

William Solis, (202) 512-8365

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## Acknowledgments

In addition to the contact named above, Thomas Gosling, Assistant Director; David Epstein; Larry Juneke; Paulina Reaves; and Cheryl Weissman made key contributions to this report.

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