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Report to the Chairman, Subcommittee on Oversight of Government Management, Committee on Governmental Affairs, U.S. Senate

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DEFENSE INVENTORY

Depot Packing and Shipping Procedures

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General Accounting Office
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DEFENSE INVENTORY: DEPOT Packing and Shipping Procedures

December 7, 1992

The Honorable Carl Levin
Chairman, Subcommittee on
Oversight of Government Management
Committee on Governmental Affairs
United States Senate

Dear Mr. Chairman:

As you requested, we examined the Department of Defense's (DOD) packaging and packing practices. Specifically, you asked us to determine whether (1) Defense Logistics Agency (DLA) depots were avoiding unnecessary costs by consolidating packing of shipments going to the same military installation at the same time, (2) depots were packing and shipping supply items in the most efficient and cost-effective manner, and (3) military services were placing different emphasis on recycling discarded shipping materials. In conducting our analysis, we concentrated on small, consumable items managed and stored by DLA and used by the military services.

Results in Brief

DLA routinely consolidates the packing of low priority shipments going to the same location at the same time. However, DOD regulations do not permit the consolidation of the highest priority orders going to the same location at the same time, even though consolidation would likely result in considerable cost savings. One DLA depot has estimated that it could save approximately $250,000 annually through consolidated packing of these priority orders.

DLA depots generally pack and ship supply items in an efficient and effective manner. Although the Navy requires supply items to be packaged in costly fire retardant boxes, ship crews usually remove this protective covering before the items are taken aboard the ship.

DLA is incurring unnecessary costs as a result of a new Army supply system that automatically expedites transportation for high priority requisitions that fail to show a required delivery date. This procedure contradicts a DOD directive that allows DLA depots to downgrade the transportation priority of requisitions when the materiel is not needed within 20 days.

Finally, recycling efforts varied from one military installation to another.

Background

DLA manages approximately 3 million consumable items.[1] These include weapons system spare parts, clothing, fuel, food, medical supplies, as well as common items such as nuts, screws, fuses, and batteries. DLA items represent about 70 percent of all consumable items used by the military services, other DOD components, and federal agencies. The services are scheduled to transfer an additional one million consumable items to DLA by September 1994. DLA will then be managing nearly 90 percent of the 4.3 million consumables in the federal supply system.

Six DLA supply centers forecast demand, process requisitions, monitor inventory levels, and award contracts. During calendar year 1991, DLA supply centers processed over 18 million requisitions. Six DLA depots store and ship supply items to over 150,000 customers worldwide.[2]

Although DLA provides the supplies, the customer determines the quantities required and assigns a priority to indicate the urgency of its need and whether expedited transportation is required. Upon receipt of a customer requisition, the DLA supply center accountable for the item validates the information in the request document, identifies the DLA depot storing the materiel, and issues the depot a material release order to ship the item. The depot will process the order, pick the item from storage, and pack and ship it to the customer. The timeliness of this service depends on the priority that the customer assigns to the requisition and whether premium transportation is required.

Savings Could Be Achieved by Consolidating High Priority Shipments

To save money, DLA depots routinely consolidate the packing of low priority orders being shipped to the same military installation at the same time on the same transportation medium into single shipping containers. About 89 percent of DLA orders are low priority shipments. However, DOD regulations do not allow consolidated packing of the remaining 11 percent (about 1.9 million requisitions) of highest priority requisitions.[3]

[1]Consumable items are materiels that are not economically reparable and are discarded when worn out or broken.

[2]On March 16, 1992, the military services' supply depots (24 in total) were consolidated under DLA management.

[3]Highest priority requisitions are for materiel that has a high urgency of need and (1) shows a required delivery date of under 21 days, (2) contains a code requesting expedited transportation, or (3) contains a code identifying the order as a part needed to repair an inoperative weapon system. These codes are inserted by the customer to obtain both expedited processing and transportation for urgently needed materiel.

For several years, DLA has tried to gain approval from the military services to change the regulations. DLA has argued that it could achieve greater efficiencies and economies by consolidating these priority orders without degrading customer service. The Army, which accounts for over 37 percent of DLA requisitions, agreed to the change, but the Navy (24 percent) and the Air Force (23 percent) rejected the proposal, stating that consolidation would make it difficult to identify all but the lead item in the shipment and/or trace a lost or misdirected shipment of urgently needed items.

At three of the four DLA depots included in our review, we observed the highest priority orders being separately packed for transportation to the same location. For example, at one depot, we found eight individually packed orders prepared for air shipment to the Naval Air Station, Jacksonville, Florida. Of the eight orders, five were for one each of the same item.

At the remaining depot, we observed orders going to the same location being consolidated into single shipping containers without regard to requisition priority. This depot regularly uses dedicated trucks to make shipments to specific installations on designated days of the week. According to DLA depot officials, use of dedicated trucks reduces shipping costs, but can occasionally result in late delivery of a priority order or early delivery of a routine order. In addition, a Naval Supply Center we visited has regularly consolidated orders with mixed requisition priorities into single containers for shipment to naval vessels in the vicinity.

A depot official stated that individual packing does not normally get the item to the customer faster. Whether orders are packed individually or in one large box, they usually arrive at the designated location at the same time. The tactical units/customers we interviewed told us that they were agreeable to receiving consolidated shipments and that they believed the use of larger containers, versus numerous boxes, would reduce the risks of lost or misdirected shipments during transportation. A June 1992 analysis by one DLA depot estimated that consolidation of highest priority orders could save the depot approximately $250,000 annually.

Finally, our discussions with supply personnel and observations of supply operations at the installations' central receiving points showed that consolidating the highest priority shipments would have little, if any, effect on timeliness. We found that at Army installations, all items received are processed without regard to priority, while Navy and Air Force base supply facilities process their shipments in order of priority.

Depot Packing and Shipping Procedures

For the majority of materiel shipped from DLA depots, we found that the shipments were packed and consolidated in an efficient and cost-effective manner. Although the Navy is requiring supply items to be packaged in costly, fire retardant boxes, these boxes are being disposed of before the items are taken aboard the ships. Furthermore, additional transportation costs are being incurred because a new automated Army supply system is upgrading the mode of transportation for some requisitions. We observed, in some instances, packers placing small single supply items into larger boxes filled with excessive packing material.

Use of Fire Retardant Containers

In 1985, the Navy established a fire retardant program that required vendors of Navy-managed items to use fire retardant packing materials (wrapping, barrier bags, and cushioning) and containers to improve safety and survivability of personnel aboard Navy ships. The program also encompassed items managed and procured through DLA. DLA initially refused to provide the fire retardant materials, claiming that they were 3 to 10 times more expensive than regular packing materiels and potentially carcinogenic. Our discussions with a private packaging firm disclosed that fire retardant containers are over 3 times more costly than regular boxes.

After lengthy discussions, in June 1992, DLA and the Navy reached agreement on the use of fire retardant materials. The Navy agreed to limit its fire retardant requirements to items for ship use and require only the outer container to be fire retardant. DLA told us that until they know what specific items will need fire retardant material, they could not estimate the additional costs.

Despite the Navy's limitation to shipboard use, we were told that, due to the limited storage space, most supply items are removed from their outer containers before taken aboard the ships. The shipping materials are generally disposed of in trash or pier-side dumpsters. Also, none of the Navy officials we questioned could distinguish between a fire retardant or a regular container.

New Army Supply System May Lead to Unnecessary Transportation Costs

In a previous report[4] we discussed how DOD customers were requesting higher priority services than needed. DOD responded that a March 30, 1990, memorandum established new procedures requiring the customer to separately assign a supply and transportation priority to the requisition.

[4]Defense Inventory: Defense Logistics Agency Customers Order Supplies Uneconomically (GAO/NSIAD-91-39, Feb. 14, 1991).

When premium transportation is not requested, the requisition is automatically downgraded by the DLA depot to "routine" or ground transportation. According to DOD, transportation is the principal cost driver on high priority requisitions and the new procedures will allow the customer to determine whether premium transportation is needed. This change is expected to save transportation costs.

However, we found that a newly implemented Standardized Army Retail Supply System (SARSS),[5] which is intended to improve the Army's requisition process, could undermine the 1990 procedures. The new system automatically inserts a code for premium transportation on high priority requisitions that fail to show a specific delivery date. An Army official told us that this procedure was developed to prevent automatic downgrading of the transportation priority of a requisition when the customer fails to designate the date the materiel is needed. This system override assumes that all high priority requisitions require premium transportation and could cause DLA to incur unnecessary transportation costs.

Overpacking of Small Single Items

Although most supplies shipped by DLA appear to be packed efficiently, Army, Navy, and Air Force customers we interviewed still complained about receiving overpacked single item shipments. Their most common criticism concerned the packing of small single items in large shipping containers. At one Navy installation, officials showed us a bolt that was packaged in a plastic bag and wrapped in protective plastic, then placed in a small box, which in turn was packed in a larger box with a significant amount of filler. At Army and Air Force installations we visited, officials described or showed us examples where small single items had excessive packing.

We analyzed depot cost and production reports in an attempt to quantify the costs associated with the packing and shipping of single items, but DLA accounting systems are not designed to identify such costs.

[5]SARSS was implemented at Fort Bragg, North Carolina, over a year ago, and is slated to eventually replace other existing Army supply systems worldwide.

Emphasis on Recycling Shipping Materials Varies Among the Military Installations

DOD directives require the military services to preserve and protect the environment and conserve natural resources by (1) judicious collecting and disposing of solid waste, (2) reducing waste where possible, and (3) recovering and recycling materials and/or energy from solid waste products as an alternative to landfill disposal or incineration.

We found that the emphasis on recycling of shipping materials such as cardboard boxes, wood pallets, paper, and plastic wrap varies from one military installation to another and from ship to ship. Based on our observations and interviews with installation officials, some facilities had recycling centers that collected recyclable materials and crushed them into manageable shapes to sell. Some installations collected recyclable material from all buildings, including residential housing, while others collected only from a limited number of locations and relied mostly on voluntary compliance and delivery of recyclable materials to the facility's recycling center. Still other installations had no recycling center or active recycling program.

Ships crews told us that they usually dispose of outer containers and associated shipping materials at pier side and no effort was made to recycle it. Once the items are on board, additional materials may be removed to allow them to fit the available storage space. Ship personnel save some boxes and shipping materials to pack items being sent back to the depot. They generally dump excess or unusable packing and packaging materials at sea. In commenting on a draft of this report, DOD officials said that ships crews are often not aware of the overall recycling programs at naval bases.

The Marine Plastic Pollution Research and Control Act of 1987 restricts overboard discharge of all solid wastes and plastics worldwide and requires Navy compliance by January 1994. The Navy, however, decided to comply as soon as possible and immediately required the segregation and on-board storage of solid waste. It also required ships within 20 days of port to retain plastic wrappings. Two Navy ships we visited had trash compactors installed and three of four ships were saving plastic wrappings in accordance with Navy policy. One ship, because of very limited storage space, was disposing of all plastics and solid wastes at sea.

Recommendations

We recommend that the Secretary of Defense (1) change the regulations to allow DLA depots to consolidate the highest priority orders going to the same customer on the same day; (2) require the Secretary of the Navy to

reassess the Navy's policy which requires fire retardant protection for all shipboard items; and (3) require the Secretary of the Army to take action, before SARSS is installed worldwide, to delete the system's automated procedure, which inserts a code for premium transportation when the customer requisition fails to state the date the materiel is needed.

Agency Comments

DOD generally agreed with the findings and recommendations in this report and stated that the recommendations were consistent with ongoing DOD initiatives. DOD said that action will be initiated to (1) maximize consolidations of shipments going to the same customer on the same day; (2) reassess requirements for fire retardant packaging for shipboard items; and (3) require software changes to the SARSS to ensure that it will not insert a code for premium transportation when no required delivery date is stated. DOD also made several suggestions for specific changes in the draft that we considered and adopted where appropriate.

Scope and Methodology

We conducted our work at four DLA supply centers—Defense Electronics Supply Center, Dayton, OH; Defense General Supply Center, Richmond, VA; Defense Industrial Supply Center, Philadelphia, PA; and the Defense Personnel Support Center, Philadelphia, PA—to determine how requisitions are processed and issued to depots for shipment. We observed the depot receipt, storage, and distribution process, including how shipments to the same location are consolidated in both the packing and transportation, at DLA depots in Columbus, OH; Mechanicsburg, PA; New Cumberland, PA; and Richmond, VA. We obtained statistics on requisitions to DLA showing the number of submissions by (1) individual military service, (2) transportation priority, and (3) single item versus multiple item shipments.

We visited Army, Navy, and Air Force installations to (1) determine how materiel is delivered from the military installation's central receiving point to the customer, (2) observe the disposition of the shipping materials, (3) identify the facility's recycling programs, and (4) determine customer views on receiving highest priority orders in consolidated shipments. We interviewed personnel at Dover Air Force Base, Dover, DE; McGuire Air Force Base, Wrightstown, NJ; U.S. Army Headquarters III Corps and Fort Hood, Killeen, TX; U.S. Army XVIII Airborne Corps and Fort Bragg, Fayetteville, NC; and the U.S. Navy Base, Norfolk, VA—USS Key West (SSN-722); USS San Jacinto (CG-56); USS John F. Kennedy (CV-67); and USS Scott (DDG-995).

We interviewed DLA and the military services' packaging specialists at both headquarters and field locations and visited the military packaging school at Aberdeen, MD, and the Michigan State University School of Packaging. We visited private packaging firms and contractors. We also observed supply operations at Army, Navy, Marine Corps, and Air Force depots and a Naval Supply Center.

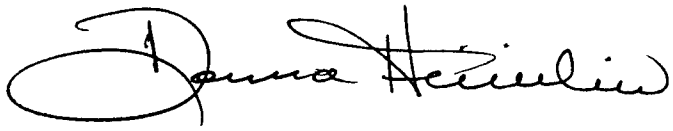
We spoke to U.S. Army officials at Fort Lee, VA, who were responsible for designing the SARSS, about the automatic entry for expedited transportation on customer requisitions.

We conducted our review from September 1991 to August 1992 in accordance with generally accepted government auditing standards.

As arranged with your staff, unless you announce its contents earlier, we plan no further distribution of this report until 30 days from its issue date. At that time we will send copies of this report to the Secretaries of Defense, Army, Navy, and Air Force and the Directors of DLA and the Office of Management and Budget. We will make copies available to others on request.

Please contact me on (202) 275-8412 if you or your staff have any questions concerning this report. Major contributors to this report are listed in appendix I.

Sincerely yours,



Donna M. Heivilin
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