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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 TRANSPORTATION

Defense Logistics Agency's Regional Freight Consolidation Centers

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National Security and
International Affairs Division

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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 reviewed the operations of the Defense Logistics Agency's (DLA) regional freight consolidation centers to determine if they were (1) achieving the savings DLA projected, (2) delivering freight when required, and (3) maintaining accountability for freight in transit.

Background

Before regional freight consolidation centers (RFCC) were established, DLA purchased items from vendors and the vendors shipped the items—often in small loads—directly to a DLA storage depot. In November 1988, DLA established the RFCCs to save money by consolidating shipments of less than 10,000 pounds from vendors into larger more economical truckload shipments. Each of the seven operating RFCC's is located near a metropolitan area concentration of vendors. Once the RFCCs have consolidated loads or have held the freight for a maximum length of time, they transport the freight to one of six primary DLA storage depots located across the country.

Currently, two RFCCs are operated by DLA and five by motor freight carriers under freight agreements with DLA. DLA operates the Ogden and Tracy RFCCs, while carriers operate the New York, Jacksonville, Dallas, Chicago, and Los Angeles RFCCs. DLA plans to expand the consolidation program to four additional locations.

DOD has conducted three studies on freight consolidation. The first study estimated annual savings of $14 million based on a projected freight volume of 253 million pounds. The most recent study lowered estimated annual savings to $4 million based on a projected freight volume of 102 million pounds. Actual freight volume during the last 12 months was 35 million pounds. All three studies based their savings estimate on the assumption that vendors would pass on the transportation savings through lower product prices to DLA. In other words, because DLA, instead of the vendors, was paying to ship the product, DLA assumed that vendors would lower the prices charged to DLA.

Results in Brief

DOD is not realizing the estimated savings from sending vendor shipments through the RFCCs because many vendors are not passing the savings on to DLA and because freight volume has been lower then expected. In addition, DOD did not consider a more economical alternative. Our analysis of this alternative showed that DOD could have saved over 40 percent of the transportation costs by using existing government freight rates and sending the shipments from the vendors directly to the storage depots.

Overall, the RFCCs are close to delivering shipments to depots within the required time, but 3 percent of the vendors we surveyed cited numerous problems with lost, damaged, or mishandled freight.

Many Vendors Not Passing Savings on to DOD

Approximately 33 percent of the vendors do not pass their transportation savings on to DLA. Of 300 vendors sampled, 98 (32.7 percent) stated that the prices of their products are the same regardless of whether they shipped to the nearby RFCC or directly to one of DLA's depots; 144 vendors (48 percent) responded that the prices of their products are lower when delivery is directed to a nearby RFCC. DOD paid the freight bills for the remaining 58 vendors (19.3 percent).

Several reasons were given by vendors that do not lower the price of their products. Many of them are small businesses and do not want to incur the expense of accounting for shipping costs for each shipment. These firms explain that the costs are totaled each year and allocated across all the product lines. Another reason given by a vendor that does much of its business with the government is that it figures that the shipping costs even out over the long term. The vendor stated that from its facility in Los Angeles, it ships to Navy installations on the east coast and also to installations in California. The vendor sells at one price figuring that while it may lose a little on the east coast shipments, it will gain an offsetting amount on the west coast shipments. A DLA official stated that these vendors are typical of a lot of vendors that sell at what is termed a national catalog price, that is, one price that includes transportation.

Lower Freight Volume Results in Higher Freight Rates

The savings DLA estimated for the RFCCs were based on freight volumes that have not been realized. Volume is much less than projected. Since higher volume results in lower transportation rates, it is imperative that the RFCCs' shipments achieve a high volume to maximize savings. Otherwise, shipments through RFCCs can result in higher overall freight charges. We analyzed 26 shipments and found that as a result of low RFCC freight volume, the total freight bill for these 26 shipments was $5,206. In contrast, if the RFCC was achieving a consolidated shipment freight volume of at least 40,000 pounds, the total freight bill for the 26 shipments would have been only $2,518, or 52 percent less.

To achieve the savings that DOD projected for the RFCCs, DLA must either direct more freight through the RFCCs or the services must begin directing freight through the RFCCs. Neither appears likely to occur. DLA officials project no new increases in procurements, which would result in more vendor shipments through the RFCCs. They cite reduced requirements because DOD is reducing the number of military and civilian personnel and DOD is closing unneeded military installations. In addition, service officials say they cannot use RFCCs because doing so would make accountability of transportation funds impractical. One Navy official explained that while DLA has one transportation appropriation to charge, the Navy has over one hundred.

A More Economical Alternative Not Considered by DOD

Two alternatives were compared in all three of DOD's studies of freight consolidation. One alternative was the transportation costs to the vendors for shipping freight directly to DOD storage depots using commercial freight rates and the second alternative was the transportation costs to vendors for shipping to the RFCCs using commercial freight rates plus the cost to DOD of shipping from the RFCCs to the storage depots using government rates. When only these two alternatives are considered, RFCCs can be the more economical alternative when high freight consolidation volumes are achieved. For example, we calculated the commercial freight cost for transporting the 26 shipments from the vendors directly to the depots. We found that the total commercial freight bill for these shipments would have been $4,459. If these shipments had been consolidated at the nearby RFCC and transported as part of consolidated shipments of at least 40,000 pounds to depots, the total freight bill would have been $2,518, or 44 percent less.

DOD did not consider the alternative of shipping freight from vendors directly to DOD depots using already existing government freight rates.

Because government freight rates are less than commercial rates, we analyzed this alternative. Using shipments at selected weights ranging from 50 pounds to 10,000 pounds, we calculated transportation costs for our alternative and for DOD's consolidation alternative and compared them to determine which was more economical. The two alternatives we compared were:

Alternative 1	Vendor to storage depot at government rates
Alternative 2	Vendor to RFCC at commercial rates; RFCC to storage depot at government rates (the current practice by DOD)

We found that using government rates to ship freight from vendors directly to storage depots (alternative 1) was the most economical.

We analyzed the two alternatives by weight to see if any weight category might be more cost effective under a different alternative. Table 1 shows that alternative 1 was the more economical alternative except at 50 pounds where the current practice, alternative 2, saves a higher percent of the transportation costs. We included the 50-pound weight category because shipments under 70 pounds can be sent by a small parcel carrier instead of by a less-than-truckload (LTL) carrier. A small parcel carrier is more economical than LTL carriers because LTL carriers have minimum rates that apply to shipments of less than 200 pounds, which are higher than the maximum small parcel carrier rates. RFCC officials told us that the majority of the shipments they receive do not arrive by small parcel carrier.

Table 1: Savings Comparison by Weight

	Dollars		
Weight (pounds)	Alternative 1	Alternative 2	Savings (percent)
50	$ 438	$ 363	(17.1)
100	1,242	2,109	41.1
200	1,311	2,443	46.3
300	1,382	2,777	50.2
400	1,653	3,154	47.6
500	1,653	3,496	52.7
1,000	2,802	6,022	53.5
2,500	6,078	13,770	55.9
5,000	10,612	24,597	56.9
10,000	17,645	43,471	59.4

To ship vendor freight using government rates, DOD would incur some administrative responsibilities. Transportation officers or contractors would need to rate and route shipments and prepare government bills of lading. DLA already has a field organization that performs these responsibilities for existing vendor contracts that use government freight rates.

DLA transportation officials agreed that it would be more economical in many instances to use government rates. They added that to select the most economical delivery terms, contracting officials would need to evaluate the total cost of each procurement under various terms of delivery and incorporate those terms into the contract.

As shown earlier, 33 percent of the vendors in our sample stated that the price of their product was the same regardless of where they shipped it. In those cases, it is more economical to have the vendor ship directly to the depot using commercial rates. In other words, the vendor pays the transportation costs to the depot.

A DLA contracting official, in discussing this, said that soliciting contracts under various delivery terms would increase the administrative burden. However, this official and other officials that we contacted could not provide any formal studies supporting their position. Our review of the Federal Acquisition Regulation found that in determining the most advantageous terms of delivery to the government, contracting officials must consider the availability of lower government freight rates. Moreover, an internal DLA study found that transportation evaluations are not a significant burden on contracting officials.

RFCCs Are Close to Meeting Delivery Time Requirements

The RFCCs are required to deliver freight to depots within a certain number of days (the number of days vary depending upon destination). The RFCCS are also required to move the freight in the largest quantities possible within the allowable transit time. The on-time performance requirement for RFCCs shipping vendor materiel to depots is 90 percent. The RFCCS achieved 89 percent on-time performance during 1992. Three of the five RFCCs delivered freight within the time requirements.

Accountability Over Freight in Transit

Our analysis showed that 9 of the 300 vendors (3 percent) surveyed cited several problems with lost, damaged, and mishandled freight. Two vendors that now ship directly to the depots said that they used to ship to

RFCCs, but now refuse to do so because of the problems encountered with lost shipments. Our previous work[1] has shown that DOD does not have accurate or reliable information on the extent of intransit losses.

Shipping through RFCCs complicates accountability because multiple carriers are involved. For example, if freight is shipped directly to a depot, one carrier is accountable. Freight can only be lost or damaged while in transit and the initial carrier is the accountable carrier. The storage depot initiates a claim against the initial carrier when freight is lost or damaged.

Accountability is more complicated when freight is shipped through RFCCs because it involves two carriers and different organizations for initiating claims for lost and damaged freight. For example, if freight is lost during the trip from the vendor to the RFCC, the RFCC must notify the storage depot and the vendor of the loss or damage so that the storage depot can file a claim against the vendor. If the freight is lost while at the RFCC terminal, the Defense Finance and Accounting Service will ask the vendor for proof of delivery to the RFCC before it will pay the vendor's invoice. Once proof of delivery is provided, the Defense Finance and Accounting Service notifies DLA headquarters officials who file a claim against the RFCC. If the freight is lost or damaged during the trip to the storage depot, depot personnel must file a claim against the RFCC.

Agency Comments and Our Evaluation

We requested written comments from DOD, but none were received as of the date of this report. We did meet with DOD officials to discuss their draft comments. In a draft of this report, we suggested that DLA (1) stop consolidating vendor freight shipments at the RFCCs and (2) use existing government freight rates to ship vendor freight directly to storage depots. When products are priced to include transportation costs, the vendor should ship directly to the depot. DOD disagreed with our recommendation, stating that it would require a significant change in the way DLA conducts business and would require additional resources and considerable time and effort to implement. However, DOD could not provide any studies, reports, or analyses to support that position.

DOD also stated that DLA had established a review team to examine its current transportation and contracting policies and procedures. The study objectives are to determine if the terms of delivery being used in DLA contracts are the most cost effective. These officials said that the study

[1] Defense Transportation: Ineffective Oversight Contributes to Freight Losses (GAO/NSIAD-92-96, June 18, 1992).

was in its early stages and that a report would be available sometime around the end of the year. Thus, DOD believed that until DLA's study was completed and specific recommendations were made, the RFCCs should continue operating.

We agree that DOD's position is a reasonable course of action provided that DLA includes in the team's scope of work an analysis of the administrative burden associated with using government freight rates. Specifically, the team should determine what additional resources will be required and the additional lead time, if any, that results when government freight rates are used. We also believe that the planned expansion of the RFCCs should be postponed.

Recommendation

We recommend that the Secretary of Defense require the Director, DLA, to postpone the expansion of the regional freight consolidation program pending the results of the team's study. If the study shows that the benefits to be derived from using government freight rates outweighs the administrative burden, then we recommend that DLA (1) stop consolidating vendor freight shipments at the RFCCs and (2) use existing government freight rates to ship vendor freight directly to storage depots.

Scope and Methodology

To understand the spectrum of freight consolidation operations and to identify weaknesses in accountability over freight in RFCCs, we (1) reviewed DLA guidance and operating agreements for RFCCs, (2) observed operations at both DLA and commercially operated RFCCs, (3) interviewed DLA management personnel, (4) reviewed studies performed by various DOD activities, and (5) interviewed less-than-truckload motor freight carriers concerning their consolidation operations.

To determine whether DLA achieved the savings it projected through the operation of the RFCCs, we interviewed, by telephone, a sample of 300 vendors who had sent less-than-truckload shipments to a RFCC during the period April 1991 to March 1992, the most recent 12-month period for which data was available at the time of our work.[2] We ascertained how vendors' transportation costs were affected by shipping to the RFCC and if they were passing on any transportation savings to DLA in the form of lower product prices.

To verify whether consolidation saves money, we analyzed two case studies of actual shipments sent through the Los Angeles RFCC and one case study of an actual shipment that was sent directly to the depot rather than to the RFCC. We calculated the transportation costs for the actual shipment using actual rates for the average truckload weights and destinations and then calculated the transportation costs of two alternative methods of shipping. The RFCC portion of the freight rate was based on the average weight volume for the period of our analysis. Although the actual shipments in all three cases were under FOB origin terms (the government pays the freight bill), we also used rates available to vendors under FOB destination terms (vendor pays the freight bill) as a basis for comparison since our sample of vendors shows that approximately 81 percent of DLA's vendors ship under those terms. We compared the three alternatives to see which was more economical, shipping direct to the depot under FOB destination or FOB origin terms or shipping through an RFCC.

Based on the results of our case studies, we expanded our analysis by calculating transportation charges under the two alternatives for shipments at 50, 100, 200, 300, 400, 500, 1,000, 2,500, 5,000, and 10,000 pounds in weight. Each commercially operated RFCC was analyzed for each of the destinations it serves. Vendor locations were selected which were within a 50- to 74-mile distance of the RFCC. This mileage distance was used because it is a government freight rate category used in the calculation of transportation rates and would allow comparability between RFCCs. We calculated the transportation costs using government freight rates in use on August 1, 1992, for the government rates and commercial rates at the Class 50 with a 10-percent discount in use on April 2, 1991. We were unable to obtain commercial rates in effect on August 1, 1992, since rate increases have occurred and DOD had not received any of the revised commercial rates. The 1991 commercial rates

[2]We obtained a list of shippers with RFCC eligible freight (5,333) from DLA, Transportation Division, from which we randomly selected 461 shippers. We found that 300 of these randomly selected shippers did ship through the RFCC. The remaining 161 either did not use the RFCC or we could not determine if they had used the RFCC for reasons such as they were no longer in business, they could not be located, or they declined to respond. We adjusted the population of shippers to reflect those shippers who might offer savings to the government through lower product prices. The adjusted population size is 3,471. In accordance with our policy, all estimates contained in the report are made at the 95-percent confidence level.

that were used by DOD in its analyses of RFCCs were selected by DLA as the rates which approximate the average rate that vendors paid to deliver freight to DLA facilities. DLA officials sampled inbound freight invoices to calculate this average freight rate. We decided to use the 1991 commercial rates rather than current commercial rates as a more conservative basis for our analysis.

To measure the impact that low freight volumes have on the costs of RFCCs, we used the same actual rates calculated in the case studies and compared the results of the same analysis except using optimal rates based on the highest freight weight volume.

To assess the effectiveness of the RFCCs in transporting freight to depots, we (1) interviewed transportation managers and reviewed transportation discrepancy report files at 4 RFCCs, (2) interviewed DLA Headquarters personnel responsible for assessing performance and reviewed performance data and documents prepared by them, and (3) interviewed 9 vendors at their distribution facilities and 300 vendors by telephone. Our review was performed from January 1992 through March 1993 in accordance with generally accepted government auditing standards.

As agreed with your office, unless you publicly announce this report's contents earlier, we plan no further distribution until 30 days from its issue date. At that time, we will send copies to interested congressional committees; the Secretaries of Defense and the Army; and the Directors of the Defense Logistic Agency and the Office of Management and Budget. We will also provide copies to other interested parties upon request.

Please call me at (202) 512-8412 if you or your staff have any questions concerning this report. Major contributors to this report are listed in appendix I.

Sincerely yours,

Donna Heivilin

Donna M. Heivilin, Director
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