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6 FIRST DESTINATION TRANSPORTATION STUDY

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EXECUTIVE SUMMARY

ABSTRACT

1. Background.

a. Contract award. This study was awarded to Drake Sheahan/Stewart Dougall Inc. on 15 June 1977 -- Department of the Army Contract No. DAAG39-77-C-0119.

This study was to be conducted in two Phases:

Phase I (~~Funded~~ \$96,790) -- Identification of improvement areas and definition of Improvement Plan. Phase I has been completed and the findings summarized in this Report, and

Phase II (~~Unfunded~~) -- Quantification of specific improvements, development of implementation priorities, and preparation of detailed Improvement Plan. (Funding requirements for Phase II could not be substantiated until specific improvements were identified in Phase I.)

b. Purpose of study. The objective of Phase I was to answer three basic questions:

1- How does the Army First Destination Transportation System operate?

2- What are the total costs of the Army First Destination Transportation System?

3- How can the Army better manage and control the system?

Within the context of these questions, the study was to identify areas of potential system management improvement with concomitant cost savings and avoidances.

ABSTRACT

c. Study approach. Defense agencies involved with the Army First Destination Transportation System were reviewed -- including a review of agency procedures, compilation and evaluation of data, and the identification of opportunities to improve the system.

2. Findings.

a. FDT costs. \$71.3 million was expended for First Destination Transportation in Fiscal Year 1977. Of this total, \$48.1 million was expended on f.o.b., origin contracts and \$23.2 million on contracts with f.o.b., destination terms.

b. Potential improvements. Five significant improvement areas exist within the Army First Destination Transportation System:

Budget and cost tracking -- The current budgeting process does not project FDT expenditures accurately. Over the last five fiscal years, FDT budgets have been overstated by an average of 28.9 percent. Year-by-year variances between budgeted amounts and actual expenditures are shown on Figure 1. The budgeting process requires a more supportable FDT cost base, which projects expenditures accurately. Current Congressional interest and emphasis on zero-based budgeting underscores the importance of this improvement area.

Cost evaluation -- Existing cost evaluation procedures do not identify or realize savings and cost avoidance potentials on a daily procurement basis. A "total" systematic cost evaluation program, including specific decision rules needed on an ongoing basis, should be established.

CCSS enhancements -- The Commodity Command Standard System (CCSS) is ineffective as a management tool to control costs. Enhancements to the present program will provide management with better cost controls and a means to effect cost savings.

Auditing programs -- Existing auditing programs only identify and recover portions of the total potential savings. The cost/benefit feasibility of expanding the existing auditing programs should be developed to achieve better control and to realize fully the potential savings.

Small shipment consolidation -- Cost reduction opportunities through small shipment consolidation and stopoffs are not being fully realized. Alternative concepts and systems should be defined and evaluated to identify the system that effects the most benefit for the least cost.

c. Savings potential. Implementation of these recommended improvements will result in potential first-year savings of between \$7.4 and \$11.5 million (Figure 2).

3. Recommendations. Phase II improvements should be implemented as soon as possible to maximize savings potential to the Army.

a. Implementation priority. To satisfy the main objective of the program -- to enable the Army to better manage and control the First Destination Transportation System -- a logical improvement area implementation priority is needed. The recommended priority is as follows:

- (1) Develop improved system management concepts that will form the framework for more effective control.
- (2) Establish control mechanisms to effect more efficient management and to measure performance.

Figure 1

Army First Destination Transportation  
Budgets and Expenditures -- Primary Items

(Fiscal Years 1973-1978)

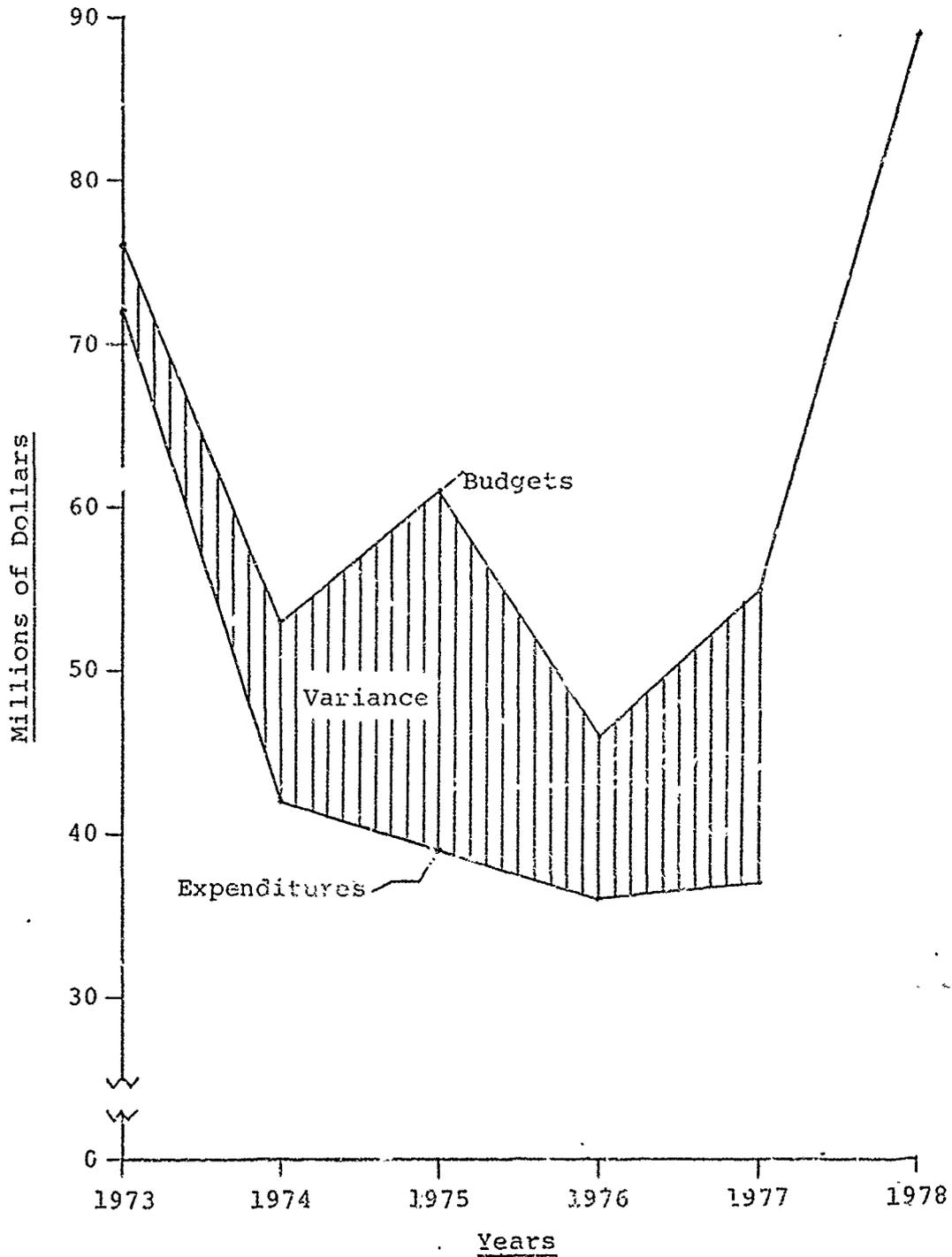
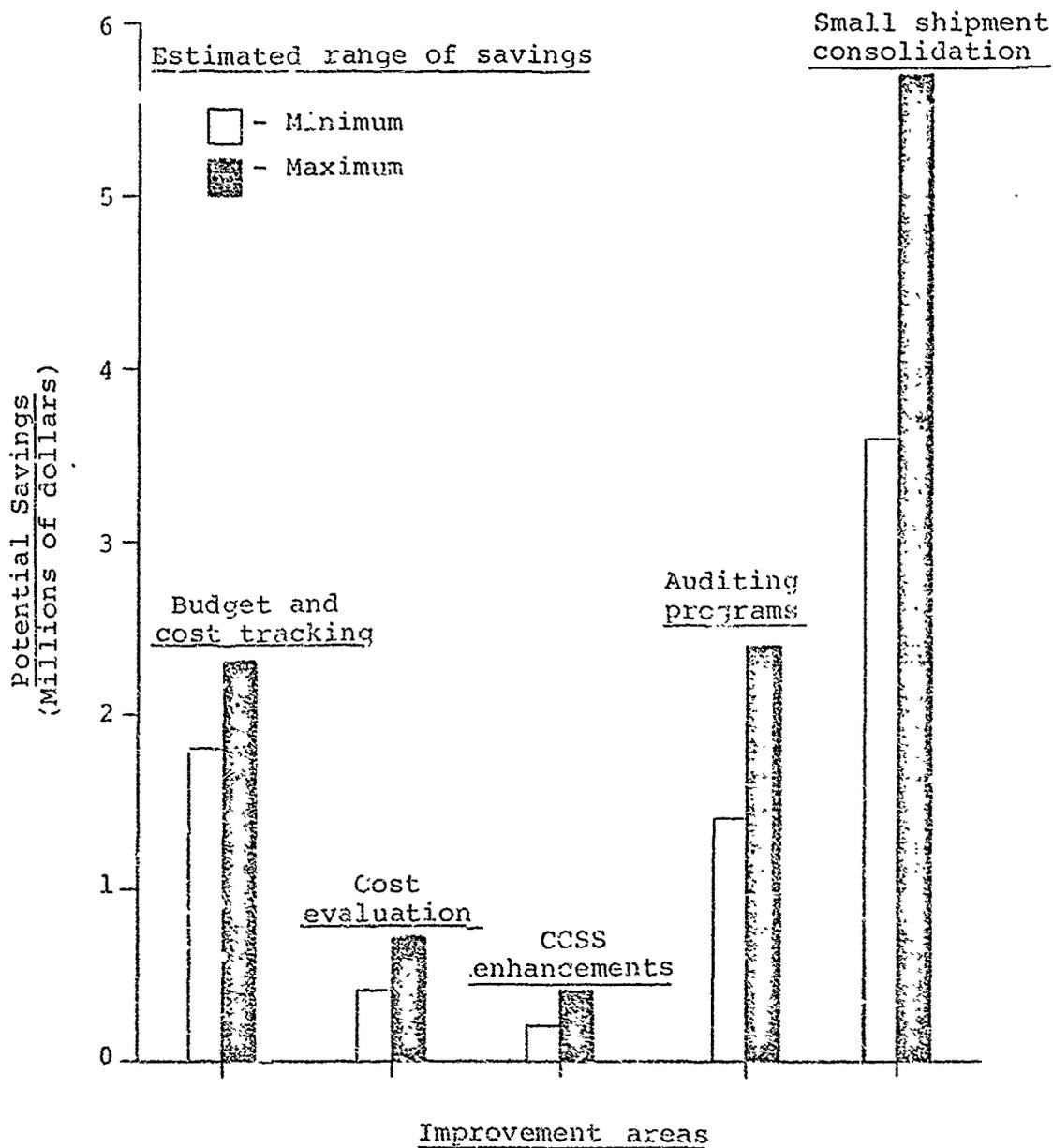


Figure 2

First-year Improvement Plan Savings Potential



- (3) Develop specific methods to obtain benefits and savings within the improved management and control environment.

Based on this priority rationale, the budget development and cost tracking program should receive the highest implementation priority as it provides the overall framework for better system management.

Cost evaluation and CCSS Enhancement Programs deserve next consideration, as they provide the day-to-day management criteria and establish performance standards.

Performance measurement improvements are the objectives of the auditing program and enable the management control loop to be closed. The auditing program, then, is the next item of priority.

Within the improved management and control environment resulting from the above programs, specific methods to obtain additional dollar savings through consolidation of small shipments should be developed and implemented.

Recommended priority of improvement plan areas is summarized on Figure 3.

b. Time and cost. The total elapsed time for DS/SD Phase II implementation is 70 weeks and will cost \$386,150 (Figure 4).

Figure 3  
Improvement Plan Priorities and Interrelationships

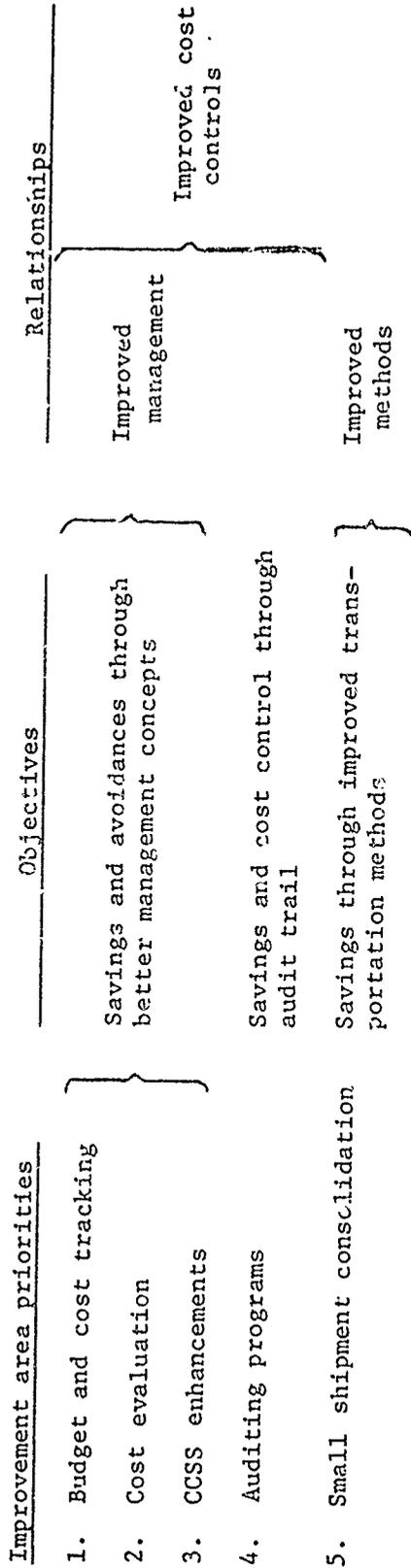


Figure 4

Implementation Plan -- Time and Cost Summary

<u>Improvement project areas</u>	<u>Total</u>	
	<u>Man- weeks</u>	<u>Cost (dollars)</u>
Budget and cost tracking	74	94,950
Cost evaluation program	51	68,150
CCSS enhancements	52	65,850
Auditing programs	47	58,500
Consolidation program	<u>79</u>	<u>98,700</u>
Total	303	386,150 <sup>a</sup>

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<sup>a</sup>This cost estimate is based on each improvement program being a stand-alone project. Should the entire improvement plan be approved and funded, the total cost estimate can be reduced by \$32,000 due to the interaction of individual programs.

## SECTION I

### INTRODUCTION

The objective of this study was to answer three basic questions concerning the Army First Destination Transportation (FDT) System, namely:

- What does the system cost?
- How does the system operate?
- How can the Army better manage and control the system?

To answer these questions, we conducted a series of field interviews with the relevant Defense agencies involved in the Army FDT system. These agencies and the personnel interviewed are shown in Exhibit A, Schedules A-I and A-II. Collectively, the interviews provided a realistic appraisal of the total system costs and how the present system operates on a day-to-day basis. In addition, these interviews also provided valuable insight leading to the identification of potential system improvements. Exhibit B, Schedule B-I contains a more detailed description of our overall study approach. Exhibit B, Schedule B-II contains a sample page from each of the Interview Guides that were used during the study.

The present Army First Destination Transportation System is complex and represents a sizable cost. Total FDT costs for Fiscal Year 1977 have been estimated to be in excess of \$71 million as shown in Figure I-1. A significant portion of these costs -- approximately 32 percent or \$23 million -- is not identified or controlled by the Army. These costs are borne by the Army but controlled entirely by outside contractors. Several improvements to reduce total FDT costs have been identified. These improvement areas and savings potentials have been summarized in Figure I-2.

A further discussion of how the system operates and what improvements can be made to better manage and control the system is contained in the following three Sections of this Report: Section II -- Present System Description -- describes how the system operates on a day-to-day basis, given the overall objectives of the transportation mission throughout the contracting cycle; Section III -- Major Findings and Recommendations -- contains the major study findings and recommended improvement plan objectives required to better manage and control the system; and Section IV -- Improvement Plan Approach -- details the recommended approach to be used in implementing these improvements.

Figure I-1

Army First Destination Transportation (FDT) Costs

Fiscal Year 1977

(Millions of dollars)

<u>Commodity Commands</u>	<u>Procurement items</u>	<u>GBL transportation costs<sup>a</sup></u>	<u>% of total estimated FDT costs<sup>a</sup></u>	<u>Total estimated FDT costs</u>	<u>Difference between GBL and total cost</u>
<u>ECOM</u>	Primary	.4	20	2.0	
	Secondary	N/A	20	1.2 <sup>b</sup>	
	Stock fund	.5	20	2.5	
	Total	.9		5.7	4.8
<u>TARCOM</u>	Primary	12.5	90	13.9	
	Secondary	N/A	90	2.5 <sup>b</sup>	
	Stock fund	4.2	60	7.0	
	Total	16.7		23.4	6.7
<u>ARRCOM</u>	Primary	20.2	95	21.3	
	Secondary	N/A	20	1.0 <sup>b</sup>	
	Stock fund	.5	20	2.5	
	Customer	5.0	-	5.0	
	Total	25.7		29.8	4.1
<u>MIRCOM</u>	Primary	1.2	90	1.3	
	Secondary	.3	20	1.5	
	Stock fund	.0 <sup>c</sup>	20	.2	
	Total	1.5		3.0	1.5
<u>TSARCOM</u>	Primary	2.6	70	3.7	
	Secondary	N/A	20	1.0 <sup>b</sup>	
	Stock fund	.7	15	4.7	
	Total	3.3		9.4	6.1
Grand total		48.1	68	71.3	23.2

N/A -- Not available.

<sup>a</sup>Source: U.S. Army Commodity Commands.

<sup>b</sup>Estimated by DS/SD based on total hardware budgets and estimated FDT costs.

<sup>c</sup>Actual figure was \$40,000.

Figure 1-2

First-year Savings Potential

<u>Improvement plan</u>	<u>FDT Cost base (\$ millions)</u>	<u>Estimated rate of savings<sup>a</sup> (percent)</u>	<u>Range of savings (\$ millions)</u>
1. Budget and cost tracking			
Customer recoveries			
FMS	9.1 <sup>c</sup>	20.0 - 25.0 <sup>b</sup>	1.8 - 2.3
Other	N/A	- - -	- - -
Subtotal			1.8 - 2.3
2. Cost evaluation			
Direct shipment	43.1 <sup>d</sup>	.5 - 1.0	.2 - .3
F.o.b. Criteria	23.2 <sup>e</sup>	1.0 - 1.35	.2 - .3
Subtotal			.4 - .7
3. CCSS Program			
PWD Consolidation	43.1 <sup>d</sup>	.5 - 1.0	.2 - .4
Subtotal			.2 - .4
4. Auditing program			
CBL shipments			
Unaudited	10.8 <sup>f</sup>	3.0 - 5.0	.3 - .5
Second audits	32.3 <sup>f</sup>	.5 - 1.0	.2 - .3
Commercial shipments	23.2 <sup>e</sup>	3.0 - 5.0	.7 - 1.2
Traffic management	43.1 <sup>d</sup>	.5 - 1.0	.2 - .4
Subtotal			1.4 - 2.4
5. Consolidation Program			
GBL shipments	43.1 <sup>d</sup>	3.0 - 5.0	1.3 - 2.2
Commercial shipments	23.2 <sup>e</sup>	10.0 - 15.0	2.3 - 3.5
Subtotal			3.6 - 5.7
 Total			 7.4 - 11.5

<sup>a</sup>DS/SD estimates based upon normal commercial recovery experience for improvement programs indicated.

<sup>b</sup>DS/SD estimate based on field interviews.

<sup>c</sup>Based upon GAO estimate that foreign military sales transportation costs are 40 percent of FDT costs. FDT cost base excludes AARCOM figures.

<sup>d</sup>FDT costs associated with GBL shipments, excluding AARCOM customer figures.

<sup>e</sup>FDT costs associated with f.o.b., delivered shipments.

<sup>f</sup>Total FDT cost base equals \$43.1 million. Unaudited GBL portion represents DS/SD estimate using a factor of 25 percent which reflects our assessment of the field interviews. Actual percentage figures were not available and were not developed by the DS/SD Study Group.

## SECTION II

### PRESENT SYSTEM DESCRIPTION

This Section of the Report describes how the system operates based upon the data obtained from our field interviews. Improvements to the system will be discussed in Section III of this Report.

Figure II-1 shows the basic transportation management flows into the FDT System throughout the contracting cycle. These flows were used to structure many of the questions contained in the Field Interview Guides. Reference to this Figure will help you to follow our discussion of the present system.

#### Regulations and Procedures

1. Transportation mission relies heavily on governing regulations and procedures. The transportation mission throughout the contracting cycle relies heavily upon the regulations and procedures provided in the Military Traffic Management Regulations (MTMR), the Armed Services Procurement Regulations (ASPR), and the Military Standard Transportation Movement Procedures (MILSTAMP). A brief description of these regulations and procedures is shown in Exhibit D, Schedule D-I.

2. MTMR and ASPR provide effective traffic management direction. The provisions of MTMR and ASPR are explicit and provide the necessary direction and guidelines for effective transportation management. A comparison of MTMR and ASPR policies and procedures covering essential transportation management areas is shown in Exhibit D, Schedule D-II.

#### Contracting Cycle

The transportation mission throughout the preaward, award, and postaward phases of the contracting cycle is to advise and assist procurement and Contract Administration in various traffic management areas. A brief description and critique of the First Destination Transportation System, as it relates to the transportation mission, follows:

1. Transportation mission. The Transportation Officer (TO) works primarily with the Procurement Contracting Officer (PCO) and the Military Traffic Management Command (MTMC) in the preaward and award contract phases. His mission is to advise and assist the PCO in developing and evaluating bid invitations and responses.

Figure II-1

Transportation Mission Throughout the Contract Cycle

Contract Cycle

Regulations and procedures  
(Overall framework)

Preaward phase  
(Bid solicitations)

Award phase  
(Bid evaluations)

Postaward phase  
(Contract administration)

Transportation mission

Determine transportation specifications from procurement work directives:  
 F.o.b. terms?  
 New or modified classifications?  
 Government-furnished property?  
 Storage-in-transit?  
 Oversize, overweight, sensitive, dangerous items?  
 Shipping weight and cube?  
 Export or domestic shipment?

Transportation mission

Determine transportation costs:  
 Shipping origins? Modes?  
 Freight rates?

Transportation mission

Administer contract to accomplish physical movement of materials:  
 ASPR transportation clauses?  
 F.o.b. terms?  
 GBL's?  
 Volume movement reports?  
 Modes, routes, and rates?  
 Backhauls and crosshauls?  
 Traffic management violations?

a. Preaward phase. The TO reviews the transportation specifications contained in the Procurement Work Directives (PWD's) to determine the transportation requirements. He subsequently assists the PCO in developing transportation clauses to be used in the Invitation for Bids (IFB). Typically, the TO reviews the procurement specifications to determine freight classifications and f.o.b. terms requirements. In addition, he also reviews whether the items to be purchased will involve government-furnished products (GFP); storage in transit; oversize, overweight, sensitive, or dangerous articles; shipping weight and cube; and export or domestic shipments. The TO relies on MTMC for any technical assistance required in performing this evaluation.

b. Award phase. Contractor bids are evaluated during the award phase to determine which contractor bid is in the best interest of the Army. The TO's input during this phase primarily involves furnishing the First Destination Transportation System rates and costs to the PCO. These costs are determined from MTMC and are used by the PCO in his overall evaluation of contractor bids.

c. Postaward phase. The TO works primarily with Administrative Contracting Officers (ACO's), contractors, and MTMC during the postaward phase of the contracting cycle. His mission is to advise and assist the ACO in administering the transportation terms established in the contract.

The ACO relies on the TO to provide the necessary transportation management to accomplish the physical movement of materiel from the contractor's facility to the First Destination transportation point. This involves a review of the f.o.b. terms and other related transportation clauses. If the contract is to be administered on an f.o.b., origin basis, the TO reviews the volumes involved and proceeds to make the necessary transportation arrangements with the contractor. MTMC provides additional technical assistance to the TO in determining transportation arrangements, routes, modes, and transportation costs.

The TO performs several traffic management functions during the postaward contract phase. He reviews contracts to prevent unnecessary backhauls and crosshauls, examines GBL's for traffic management violations, and determines the most efficient and economical means of transportation.

2. Critique. The following critique of the present system describes how various transportation-related activities are handled relative to the overall transportation mission and objectives. Our evaluation of the adequacy of these activities is predicated upon the interview responses involving the following subject matters:

a. Volume movement reports (VMR's). The criteria for filing VMR's with MTMC are well defined in both the Armed Services Procurement Regulations (ASPR) and the Military Traffic Management Regulations (MTMR). Transportation Officers are complying with established procedures; however, in many instances, the criteria guidelines are being interpreted too literally, i.e., negotiation opportunities may

be lost because VMR's are only filed when they meet the established criteria. In addition to volume, MTMC negotiation potentials may also be affected by such factors as type of shipment, modes used, and applicable transportation rate structures.

b. Transit arrangements. Transit arrangements have very little application to First Destination Transportation movements. The cost reduction benefits from using transit arrangements accrue to the Second Destination Transportation movements.

c. Government-furnished property (GFP). ARRCOM and TARCOM are the heaviest users of GFP. However, much of this property moves from Army depots to contractor facilities which constitutes a Second Destination Transportation movement.

d. Unknown destinations. Destinations are provided on the majority of Army contracts. Estimated destinations are used for bid solicitation and evaluation purposes when procurement destinations cannot be specified. Unknown destinations do not present a significant problem in the evaluation and administration of Army contracts.

e. Sole source contractors. All Commodity Commands deal with sole source contractors. Transportation costs are not considered or evaluated when a sole source contractor bids on an f.o.b., origin basis.

f. Small business and labor surplus. The designation of small business or labor surplus on Invitation for Bids (IFB) is an overriding factor in the selection of contractors. First Destination Transportation costs are not impacted significantly by these types of contracts.

g. Late deliveries. Approximately 20 percent of all shipments fail to arrive on schedule. Subsequent efforts to expedite shipments may involve premium transportation costs. Premium transportation costs may result from the use of a higher cost mode or freight rate increases which occur after the designated delivery date. These additional transportation costs are being passed on to the Army.

h. Backhauling and crosshauling. Backhauling and crosshauling are not reviewed or evaluated for potential transportation cost avoidances during the preaward and award contract phases. These factors are reviewed by Contract Administration as part of their overall cost savings program.

i. Freight rate. Freight rates are required in the award and postaward contract phases. The Military Traffic Management Command (MTMC) supports the Commodity Commands and Contract Administration in furnishing freight rate information. No significant problems are being experienced with the accuracy or timeliness of MTMC freight rate information.

j. Tentative freight classifications. MTMC is responsible for establishing the correct freight classification to be applied on all Army shipments. Tentative freight classifications may be established by the Commodity Commands for bid purposes when an established freight classification does not accurately describe the materials to be purchased. These tentative classifications are subsequently referred to MTMC for final disposition.

k. ASPR clauses. The Guaranteed Maximum Weights and Dimensions Clause (ASPR 7-2003.16) is indiscriminately used by some Contracting Officers on all contracts. The use of this clause is not practical on contracts involving small shipments such as those moving by U.S. Parcel Post or United Parcel Service. Current Contract Administration procedures require an additional review of all shipments moving under the Guaranteed Maximum Shipping Weights and Dimensions Clause (GMW&D). The time and resources needed to review each small shipment cannot be offset by transportation cost differences recovered from contractors who violate the GMW&D clause.

l. Information flow. Background transportation data developed during the evaluation of bids are not forwarded to Contract Administration. These data would be useful to Contract Administration in determining which freight rates, modes, and transportation arrangements were evaluated and considered. Problems have been experienced by Contract Administration in obtaining these data from the respective Commands.

m. Communications. No significant communication problems exist between the Commands, Contract Administration, and the Military Traffic Management Command.

## SECTION III

### MAJOR FINDINGS AND RECOMMENDATIONS

Five significant areas of opportunity for improving the transportation management and control of the Army First Destination Transportation System were identified from the study. This Section of the Report contains a brief description of each problem area identified, the study findings supporting the need for improvement, and our recommended improvement plan objectives.

#### Budget and Cost Tracking -- FDT Budgets

##### Statement of the problem

The current budgeting process does not project FDT costs realistically. Budget development is left to the discretion of each Commodity Command. The approaches used by each Command vary and have resulted in significant variances between budgets and actual expenditures. This defeats the fundamental cost control objective of a budget.

Recent and continued Congressional emphasis on transportation costs and zero-based budgeting will require a more supportable FDT budgeting effort than the various approaches used by the Commands today.

The budgeting problem is supported by the following study findings:

1. FDT expenditures vary significantly from budgets. A comparison of primary item FDT budgets and expenditures for Fiscal Years 1973-1977 indicates that most Commodity Commands significantly overestimate budget requirements. This comparison is shown in Figure III-1.

Total FDT expenditures for primary items have not exceeded \$42.0 million since Fiscal Year 1974. However, preliminary figures by the U.S. General Accounting Office (GAO) for Fiscal Year 1978 indicate a budget requirement in excess of \$39.0 million as shown in Exhibit D, Schedule D-I.

2. Each command has a different budgeting approach. The methods and factors used to develop FDT budgets vary by Command. Details of the methodology used by each Command are shown in Exhibit D, Schedule D-II. The various methods can be summarized as follows:

a. Applied percentage factor to total hardware costs. This approach does not relate transportation costs to shipping activity. It also assumes that the rate of increase in transportation costs will be the same as hardware increases.

Figure III-1

Army First Destination Transportation  
Budgets and Expenditures -- Primary Items<sup>a</sup>

Fiscal Years 1973-1977

(Millions of dollars)

U.S. Army Commodity Command	Budget and expenditures	Fiscal Years				
		1973	1974	1975	1976	1977
ECOM	Budget	N/A	.7	1.4	1.6	.7
	Expenditures	N/A	.3	.4	.5	.4
	% variance	-	+133	+250	+220	+75
TARCOM	Budget	9.4	5.2	5.1	7.1	14.6
	Expenditures	7.4	5.1	6.6	7.6	12.5
	% variance	+27	+2	-29	-7	+17
ARRCOM	Budget	60.7	39.8	47.6	29.8	34.8
	Expenditures	61.1	34.4	27.3	23.4	20.2
	% variance	-1	+16	+74	+27	+72
MIRCOM	Budget	.8	1.0	1.3	1.3	1.2
	Expenditures	.9	1.0	1.4	1.3	1.2
	% variance	-13	0	-8	0	0
TSAPCOM	Budget	5.4	6.0	5.8	5.9	4.0
	Expenditures	2.6	1.2	3.1	3.4	2.6
	% variance	+108	+400	+87	+74	+54
Total	Budget	76.3	52.7	61.2	45.7	55.3
	Expenditures	72.0	42.0	38.8	36.2	36.9
	% variance	+6	+25	+58	+26	+50

<sup>a</sup> Source: U.S. Army Commodity Commands.

b. Applied percentage factor to deliverable hardware costs. This method attempts to relate transportation costs to shipping activity. However, it also assumes that the rate of increase in transportation costs will be the same as hardware increases.

c. Applied percentage factor to past hardware costs. This approach does not realistically relate transportation costs to shipping activity. It also assumes that future transportation increases will be similar to hardware increases.

d. Applied transportation costs to deliverable hardware. This approach does relate transportation costs to shipping activity specifically. However, no attempt is made to include future transportation cost increases.

3. Primary, Secondary, and Stock Fund items are all subject to a different approach. First Destination Transportation funds are being used to transport three types or categories of procurements -- Primary, Secondary, and Stock Fund items.

FDT costs are identified and provided as a separate budget activity for primary or major end items. Nonprimary items costing over \$1,000 per unit are generally classified as Secondary items, whereas those under \$1,000 per unit are classified as Stock Fund items.

First Destination Transportation costs are not identified in the budget for Secondary or Stock Fund items. These costs become part of the total budget request for hardware and are not identified separately or tracked for control purposes.

### FDT Cost Tracking

#### Statement of the problem

The current FDT accounting procedures and practices are not sufficient to properly identify, track, and control a variety of FDT costs. The lack of these procedures has resulted in the following study findings:

1. Nontransportation costs are being charged to the FDT account. ARRCOM has been charging a portion of their ammunition blocking and bracing costs to the FDT account. These costs may represent as much as ten to fifteen percent of ARRCOM's total FDT expenses.

Ammunition is manufactured through government-owned, commercially-operated (GOCO) facilities. Under this arrangement, much of the ammunition produced is stored for direct shipment at these GOCO facilities rather than moving to intermediate storage depots. Several months and even years may pass before the final disposition is made regarding

where the materiel will be sent. The blocking and bracing costs, which are normally part of the materiel price, are charged at the time of shipment to the FDT account. This is done to facilitate payment to the commercial contractor, who would otherwise have to wait until the materiel had been accepted, properly blocked, and braced aboard a carrier's vehicle.

The actual amount of blocking and bracing being charged to the FDT account could not be determined since these costs are not identified as a separate cost category in the FDT account.

2. Recoverable FDT costs are not identified. Foreign Military Sales (FMS) and other customer shipments are being charged to the Direct Army FDT account. This occurs when the following situations are involved:

a. Government-furnished property (GFP) or materiels (GFM). A shipment of GFP or GFM often includes materiels for FMS and other customer end items, i.e., a shipment of 100 government-furnished transmissions to the Chrysler Tank plant may involve 85 transmissions for the Army and 15 for FMS customers. The major problem has been to properly identify and charge the FMS portion of these shipments to the correct account.

b. Assembly operations. Components of an end-item are sometimes shipped to an assembly point. The transportation cost associated with the inbound movement of these components to the assembly facility is being charged to the FDT account.

c. Export shipments. FMS and other customer shipments are sometimes sold free on-board f.o.b., U.S. port of export. These shipments get charged to the FDT account when the FMS or other customer identification codes are not specified on the government bills of lading (GBL).

Current FDT accounting codes and procedures do not permit identification of FMS and other customer transportation costs for recovery purposes.

3. Reimbursements are not credited to the FDT Fund. There are two categories of reimbursements which never get credited to the FDT account. These are:

a. FMS and other customer sales. The selling price of materiels to FMS and other customers is supposed to include all transportation costs borne on behalf of these customers. Since FMS and other customer transportation costs are being charged to the FDT account, corresponding credits from sales should also be acknowledged.

b. Carrier overcharges. The General Services Administration (GSA) is responsible for auditing the transportation charges submitted on government bills of lading (GBL). During Fiscal Year 1977, GSA recovered approximately \$3.4 million of Army related transportation

charges as shown in Exhibit F. This money is credited to a general Transportation Management Fund rather than to the appropriate First or Second Destination Transportation accounts.

#### Improvement plan objectives

Specify an FDT budgeting approach that will be supportable and which will more accurately project expenditures. This would include the definition of requirements for a cost-effective and practical cost tracking system. A specific improvement plan to accomplish this objective is detailed in Section IV of this Report.

#### Cost Evaluations

##### Statement of the problem

Potential cost reduction opportunities are not identified or realized on a daily operating basis from the present cost evaluation process. A variety of distribution cost tradeoffs is not considered in the determination of f.o.b. terms and most advantageous distribution arrangements. The Transportation Officer's overall input to the evaluation process is generally restricted to First Destination Transportation rates and charges. The cost tradeoffs between other cost factors, such as small shipment costs, direct shipment costs, depot handling costs, and blocking and bracing costs are not identified systematically or considered on a "total" cost basis. The current evaluation approach limits the identification of direct shipment and consolidation opportunities.

The cost evaluation problem is supported by the following study findings:

1. Transportation reporting levels within the Army organization preclude effective interaction. The Procurement Contracting Officer (PCO) is responsible for gathering all cost data and performing cost evaluations between competing contractors. Within this framework, the Transportation Officer (TO) furnishes freight classification data, recommends transportation clauses from the Armed Services Procurement Regulations (ASPR), and provides FDT transportation rates and charges.

The impact of First Destination Transportation costs on "total" costs is seldom evaluated when a sole contractor is involved or when competitive prices are not considered close by the PCO. Each PCO sets his own guidelines with respect to the criteria he uses to evaluate how close bids have to be before he involves the Transportation Department.

Transportation's participation in the evaluation process is dependent on the initiative taken by each PCO. The transportation mission is not clearly understood by all PCO's. If the PCO doesn't feel transportation data are required, the transportation element is bypassed. Transportation also may be bypassed by some PCO's in evaluating the impact of contract modifications upon FDT costs and arrangements.

2. There is no system to identify all cost factors and to provide the necessary distribution cost data. The current evaluation process limits the identification of direct shipment and consolidation opportunities. Many shipments are moving to storage depots as a result of stocking decisions made several months in advance of actual procurements. These decisions are seldom challenged on a day-to-day procurement basis.

There is a prevailing philosophy among a significant number of PCO's and TO's that the procurement of less-than-truckload quantities on an f.o.b., delivered basis is more advantageous to the Army. This philosophy fails to recognize the potential savings to be gained through shipment consolidations and possible lower applicable Section 22 rates and charges. Purchasing certain categories of "small shipments" on an f.o.b., delivered basis may be advantageous to the Army. However, a more definitive basis than the "less-than-truckload quantities" is required.

Other transportation and distribution cost tradeoffs are not always evaluated on a daily basis when depot storage has been predetermined. Transportation, with the exception of ARRCOM, generally only provides First Destination Transportation rates and charges. The impact of these costs upon Second Destination Transportation costs and vice versa is not considered. Several cost factors must be defined and identified to evaluate effectively the potential for direct shipment versus depot storage. This would include an evaluation of direct transportation costs versus First and Second Destination Transportation cost and depot handling costs. The type and cost of packaging and blocking and bracing may also become an important cost tradeoff in this type of evaluation.

#### Improvement plan objectives

Establish the decision rules required on a day-to-day procurement basis to identify and realize potential cost reductions from a systematic "total" cost evaluation program. This effort would include a quantitative analysis of the savings potential for direct shipments. Our recommended approach to accomplish this objective is detailed in Section IV of this Report.

## CCSS Program

### Statement of the problem

The Commodity Command Standard System (CCSS) Program in its present form is ineffective as a useful management tool to control costs. The initial program objectives to provide Transportation Officers with complete transportation data on materiel requisitions and to assist in the determination of f.o.b., terms and ASPR clauses have not been realized. Key transportation data elements are incomplete, and there is a question as to what criteria should be used in recommending f.o.b. terms. A more detailed description of the CCSS Program is provided in Exhibit E, Schedule E-I.

Enhancements to the present program will make the system more cost-control oriented and allow management to identify potential cost reduction opportunities that are not envisioned under the present objectives or future expansion efforts.

The following study findings support the feasibility of expanding the CCSS Program to provide a sufficient data base to make the program a useful cost control mechanism:

1. Key transportation data elements are incomplete. The CCSS Program was initiated to assist the Commodity Command Transportation Officers in their evaluation of f.o.b. terms and use of appropriate transportation clauses from the Armed Service Procurement Regulation (ASPR). Key inputs into the program are obtained from the procurement work directive (PWD), which specifies the nature of the requisition and is initiated through the Procurement Directorate. Outputs of the program provide Transportation Officers with quantities to be purchased, transportation freight classifications, and packaging weight and cube data. In addition, the program also lists the recommended f.o.b. terms and ASPR clauses. A sample printout of these recommendations is contained in Exhibit E, Schedule E-II.

The transportation freight classification and packaging data are not complete. About ten percent of the classification data is missing, and much of the packaging weight and cube data are either missing or inaccurate.

The CCSS Program uses three sets of decision rules for recommending f.o.b. terms -- shipment priority, weight, and destination. Details of the criteria used under each set of decision rules are presented in Exhibit E, Schedule E-III.

The shipping weight decision rules need to be re-evaluated. These rules only establish f.o.b., origin terms when shipping quantities reach truckload proportions. Less-than-truckload quantities may offer substantial cost reduction opportunities if controlled on an f.o.b., origin basis.

2. Additional benefits can be achieved. The CCSS Program is ineffective as an information system to control costs. Enhancements to the present program could provide management with a more effective information system to control and identify cost reduction potentials.

Several procurement work directives (PWD's) generally are issued against a single contract. These flow on a daily basis into the CCSS Program. The current program is designed to identify and combine common contract and contractor PWD's. However, this effort is limited to PWD's received within a 24- to 48-hour timeframe. Enhancements to the present program could potentially enable management to use the PWD data base as a planning tool for identifying further contractor PWD consolidations.

Other program enhancements could improve the efficiency of the Army First Destination System. For example, Volume Movement Reports (VMR's) could be generated automatically through the program. Currently, the identification and filing of VMR's are handled manually by the Commodity Command or Contract Administration.

The present system sometimes precludes possible negotiations by MTMC to obtain more favorable transportation rates and charges or arrangements due to late notifications. The CCSS Program could automatically provide the required VMR information as soon as the first PWD is issued.

Today, only the Commodity Commands utilize the data provided from the CCSS Program. Dissemination of these data to DCAS would be beneficial and useful to the Contract Administration Transportation Officer who must provide freight classifications and shipment weight and cube data on GBL shipments. Additional benefits could also be obtained by DCAS if Commodity Command evaluation results were made a part of the program. This would eliminate some duplication of effort on the part of DCAS in determining which modes, ports, rates, and transportation arrangements were used in the initial evaluations.

#### Improvement plan objectives

Define, evaluate, and quantify the feasibility of enhancing the CCSS data base to be used as an effective information system to control and identify cost reduction potentials. Our recommended approach to accomplishing this objective is detailed in Section IV of this Report.

## Auditing Programs

### Statement of the problem

Cost reduction opportunities are not being fully realized from current auditing programs. Present efforts only attempt to identify and recover portions of the total cost reduction potential. This approach also results in some duplication of effort between different auditing activities.

The Commodity Commands review GBL's for data completeness and to determine estimated transportation costs. DCAS reviews the same GBL's for data completeness, compliance with routing instructions, contractor consolidation opportunities, and proper use of freight classifications. GSA is responsible for auditing carrier transportation costs based upon the correct use of freight classifications and carrier rates and charges. MTMC has several review programs which look at a variety of areas including: data completeness; use of low cost mode; routing compliance; consolidation potentials; freight classifications; and carrier rates and charges.

The combined auditing programs of MTMC and GSA essentially review all the important transportation cost control areas on a post-audit basis. These programs, however, do not attempt to audit all GBL's on a continuous and comprehensive basis to obtain the total cost reduction potentials.

The major study findings which highlight this problem area are:

1. Improvements can be made in GSA Auditing Programs. The General Services Administration (GSA) Auditing Programs only attempt to recover a portion of the total cost reduction potential. A significant segment of Army transportation costs are not audited by GSA. These fall into the following two categories:

a. Commercial freight bills. The Army frequently authorizes contractors to use commercial bills of lading in lieu of government bills of lading (GBL) when transportation charges will not exceed \$100. The transportation costs associated with these shipments are billed back to the Army through the DCAS Finance and Accounting Departments. Supporting freight bills are required for any transportation costs submitted over \$25. However, DCAS does not audit all transportation charges. The contractor is reimbursed, and the transportation freight bills become part of DCAS's payment records.

b. GBL shipments. A large segment of GBL shipments is not audited because its dollar value falls below the auditing criteria established by GSA. Other GBL shipments are not audited before the three-year Statute of Limitations for recovering overcharges has expired. Two factors have had a significant impact on the Statute of Limitations problem -- the length of time it takes to get freight bills into the auditing system and the sheer number of freight bills generated from the overall transportation system.

GSA does not perform a second audit on any GBL shipments. These audits are customary in the commercial sector and have proven so cost effective that independent auditing firms have been established for the sole purpose of conducting second and even third audits.

2. Improvements can be made in MTMC Review Programs. GBL's are reviewed by MTMC to determine the effectiveness of several transportation management programs. These reviews are conducted as part of MTMC's "GBL Review Program." The objectives of the GBL Review Program are established on an annual and monthly basis by MTMC Headquarters and specify areas of investigation involving both cost reduction opportunities and compliance with established procedures. All reviews are performed manually, which limits the number of GBL's that can be reviewed given the time and resources available. Typically, these reviews only involve ten to fifteen percent of the total GBL's under investigation.

Continuous analysis of all cost control areas is not maintained on a month-to-month basis since each month's activity involves different objectives. Cost reduction potentials and savings are not tracked to determine the most cost benefit areas of control or whether corrective measures are effective in universally controlling repeated errors.

The GBL Review Program only attempts to identify, control, and recover a portion of the total cost reduction potentials.

#### Improvement plan objectives

Develop the cost benefit feasibility of expanding the types of reviews conducted by GSA and MTMC to achieve better control and fully realize the cost reduction potentials available. An outline of DS/SD's approach to achieving this objective is contained in Section IV of this Report.

### Small Shipment Consolidation

#### Statement of the problem

Potential cost reductions through small shipment consolidation and stopoffs are not being realized. Current efforts are handled on a manual basis and apply only to f.o.b., origin contracts. This effort does not provide a systematic approach to realizing consolidation and stopoff cost reduction potentials, nor does it include a large segment of traffic which is procured on a delivered basis. The consolidation and stopoff problem is supported by the following study findings:

1. Total consolidation and stopoff opportunities are not identified. The identification of consolidation and stopoff opportunities is currently handled on a manual basis. Realization of these opportunities depends largely on individual awareness, enthusiasm, and ability to associate disjointed pieces of information.

Additional opportunities are not realized because a large percentage of less-than-truckload shipments is procured on a delivered basis. These shipments are not identified or considered for potential consolidation or stopoffs.

Other opportunities are not attainable because there is no automated means of identifying and utilizing total traffic flows within and between DCASMA's. Current efforts focus on consolidation and stopoff opportunities with the same contractor or an individual DCASMA basis. Opportunities between different contractors within a DCASMA and between different DCASMA's are generally overlooked. The current Detroit and Wichita consolidation programs have been effective in utilizing traffic flows from different contractors and indicate the feasibility of this type of consolidation program. Similar consolidation programs utilizing the traffic flows between different DCASMA's are not being tested currently.

2. Present methods limit shipment preplanning. The visibility of consolidation and stopoff opportunities is limited by the way Transportation Officers review and plan shipments. These shipments are made from two types of contractors established by DCAS -- Procedure A and Procedure B. Procedure A contractors are permitted to prepare GBL's and exercise their own transportation management expertise in consolidating and routing shipments under 10,000 pounds. DCAS subsequently reviews these shipments to control Procedure A consolidation and stopoff efforts. This procedure adequately controls consolidations from the same contractor on a post-audit basis. However, it fails to identify or plan other possibilities between different contractors.

Contractors not classified as Procedure A are referred to as Procedure B contractors. Procedure B contractors represent about 95 percent of total contractors handled by DCAS. These contractors are not permitted the same latitude as Procedure A contractors and must rely on DCAS for all traffic- and transportation-related services including GBL preparation and routings.

The review and planning of Procedure B shipments generally begin just prior to shipment when contractors make their requests for GBL's. This procedure limits the amount of advanced planning that can be done to identify and realize potential consolidation and stopoffs.

Improvement plan objective

Define the consolidation and stopoff alternative which results in the most savings for the least cost. This would include defining the feasible alternatives and developing cost and savings criteria for cost benefit analysis. Details of our recommended improvement plan to accomplish this objective are included in Section IV of this Report.

## SECTION IV

### IMPROVEMENT PLAN APPROACH

The system improvements discussed in Section III of this Report should be implemented as soon as possible to maximize the potential first-year savings of \$7.4 to \$11.5 million.

To satisfy the main objective of the program -- to enable the Army to better manage and control the First Destination Transportation System -- a logical priority of improvement area implementation is needed. Priorities should be established in the following manner:

1. Develop improved system management concepts that will form the framework for more effective control.
2. Establish control mechanisms to effect more efficient management and to measure performance.
3. Develop specific methods to obtain benefits and savings within the improved management and control environment.

Based on this priority rationale, the budget development and cost tracking program should receive the highest implementation priority as it provides the overall framework for better system management.

Cost evaluation and CCSS Enhancement Programs deserve next consideration, as they provide the day-to-day management criteria and establish performance standards.

Performance measurement improvements are the objectives of the auditing program and enable the management control loop to be closed. The auditing program then is the next item of priority.

Within the improved management and control environment resulting from the above programs, specific methods to obtain additional dollar savings through consolidation of small shipments should be developed and implemented. Given this sequence of priorities, we recommend that the following study approach be used to implement these improvements:

#### 1. Definition of Alternatives

The first step in our study approach will be to define the viable alternatives to be tested for each improvement program. This step establishes the subsequent data and analytical effort required to develop each alternative.

Based upon this study, we believe the following alternatives need to be defined and evaluated further:

a. Budget and cost tracking:

(1) Budget composition:

- Establish which FDT cost categories should be included in the budgeting process -- Primary, Secondary, and Stock Fund items.
- Determine how specific FDT transportation activities should be budgeted and controlled -- foreign military sales and other service costs; ammo blocking and bracing cost; and carrier overcharge and other reimbursements.

(2) Budget development:

- Establish accuracy objectives.
- Establish budgeting approaches which include the following:
  - The development of budgets using activity measures such as transportation units and costs.
  - The development of budgets using nonactivity-based measurements such as dollars per pound or transportation/procurement cost ratios.
- Establish if forecasts of cost and activities can be integrated into the budget development.

b. Cost evaluation:

(1) Direct shipment criteria:

- Define present system distribution strategy for evaluating direct shipment potential.
- Establish if alternative strategy based upon shipment size and distance relationships can be developed.

(2) F.o.b. criteria:

- Establish if variable shipment size criteria can be developed as a basis for evaluating f.o.b. terms.

c. CCSS enhancements:

(1) PWD consolidations:

- Establish present system capabilities to support expansion.
- Define additional PWD consolidation program.

(2) Information base:

- Establish if the contents and use of the CCSS data base can be expanded.

(3) F.o.b. terms:

- Establish if the f.o.b. shipment size evaluation criteria, developed in the Cost Evaluations Improvement Program, is an alternative to the less-than-truckload criteria currently used.

(4) VMR generation:

- Establish if automatic VMR generation is feasible.

d. Auditing programs:

(1) Rates and charges:

- Establish if the transportation audit trail for all GBL and commercial bill back shipments should be expanded.

(2) Traffic management:

- Establish if the scope and comprehensiveness of the traffic management audit should be expanded.

e. Consolidation program:

(1) System approach:

- Define the most cost-effective consolidation system which includes the following alternative approaches:
  - Government or carrier-based assembly or assembly and distribution systems.
  - Government-negotiated arrangements.

(2) Technique:

- Establish if there is an application for a "scheduled" shipment program.
- Define how to utilize a "free-flow" system.

2. Data Acquisition

Various data elements will be required to support the analysis and evaluation of alternatives. The acquisition of these data involves two steps -- defining the data requirements and establishing the data sources. The following outline describes the types of data that will be required for each improvement program:

- Defining the data requirements:

a. Budget and cost tracking:

(1) Budget composition:

- Data to segregate cost elements.
- Data to clarify policies.

(2) Budget development:

- Procurement and shipment patterns data for Primary, Secondary, and Stock Fund items including:
  - The value of procurements.
  - Transportation costs.
  - Number of units and weight.
- F.o.b. trend data including:
  - Number of origin and destination contracts.
  - Value and weight distribution
  - Size and type of item.
- Data to test regional procurement and delivery patterns.

b. Cost evaluations:

- Distance relationship data for direct customer and through-depot shipments.

- Cost data including:

- GBL preparation and administrative costs.
- Depot handling costs.
- Transportation costs.

- Data to develop shipment size and distance relationship criteria.

c. CCSS enhancements:

- Data to develop PWD consolidation criteria including a sample of:

- Contractor/customer combinations.
- Time periods.

- Data to test expansion of CCSS Program including a sample of DARCOM evaluations of:

- Mode.
- Ports and rates.

d. Auditing programs.

(1) Rates and charges:

- Commercial movement data including a sample of:

- Bill back shipments.
- F.o.b., destination shipments.

- GBL data including a sample of:

- Audited bills.
- Unaudited bills.

(2) Traffic management:

- GBL review data including a sample of previous audits classified by:

- Savings potential.
- Sample size.
- Review periods.

- Administrative cost data.

e. Consolidation Program:

- Procurement data including a sample of:
  - Receipts at depot.
  - Direct shipments to user.
- Shipment data including a sample of GBL and commercial shipments:
  - Composition.
  - Transportation costs.
- Consolidation data including:
  - Government and commercial facility costs.
  - Transportation costs.
- Potential negotiation data by:
  - Type of procurement and shipping areas.

- Establishing the data sources. Figure IV-1 summarizes the potential data sources so far identified with each improvement program.

3. Analytical Approach

The following analytical approaches will be used to establish, analyze, and evaluate the various improvement plan alternatives:

a. Data Acquisition Plan:

- Identify specific data elements from:
  - Files, records, and reports.
  - Interviews.
  - Computer files.
- Establish data formats to:
  - Extract data.
  - Report data.
  - Analyze data.

Figure IV-1

Summary of Potential Data Sources

<u>Data sources</u>	<u>Budget and cost tracking</u>		<u>Consolidation program</u>	<u>Cost evaluation criteria</u>	<u>Audit function</u>		<u>CCSS enhancement</u>
	<u>Budget composition</u>	<u>Budget development</u>			<u>Rates and charges</u>	<u>Traffic management</u>	
Finance center	X						
DARCOM	X	X			X		X
Department of the Army	X	X					
DODMDS <sup>a</sup>			X	X			
FINS <sup>b</sup>		X	X				
TISS <sup>c</sup>		X	X				
DCAS				X	X		
GSA					X		
MTMC			X			X	
CCSS <sup>d</sup>							X

<sup>a</sup>Department of Defense Materiel Distribution Study.

<sup>b</sup>MTMC Freight Information System (FINS).

<sup>c</sup>DCAS Transportation Information Subsystem.

<sup>d</sup>DARCOM Commodity Command Standard System.

b. Study techniques:

Budget and cost tracking:

- Budget composition:

- Identify current cost elements.
- Establish recommendations.
- Develop procedure.

- Budget development:

- Establish procurement/shipment relationships.
- Establish unit of measure relationships.
- Establish f.o.b. trends.
- Establish regional procurement/shipment patterns.
- Define recommended budgeting procedures.

c. Cost evaluation:

(1) Direct shipments and f.o.b. criteria:

- Establish aggregation strategy:

Customer contractor consolidations.  
Products.  
Holding patterns.

- Establish alternative frequency distribution of shipment weight:

Direct shipments.  
Through-depot shipments.

(2) Direct shipment analysis:

- Develop cost factors:

Transportation.  
Depot handling.

- Establish weight/distance/cost relationships:

Direct shipments.  
Through-depot shipments.

- Define direct shipment evaluation criteria.

(3) Shipment size f.o.b. criteria analysis:

- Establish GBL costs:

Preparation.  
Administration.

- Establish shipment size/distance/  
saving relationships.
- Define f.o.b. criteria.

d. CCSS enhancement:

(1) PWD consolidation:

- Review current system decision  
rules.
- Define the basis for alternative holding  
times:
  - Contract.
  - Contractor/customer combinations.
  - Schedule time period.
- Secure transportation cost relationships  
from consolidation analysis.
- Evaluate PWD consolidation savings:
  - Test alternatives.
  - Establish system costs versus current  
manual effort.
- Define PWD consolidation enhancements.

(2) Information base:

- Establish key data element:
  - Ports.
  - Modes.
  - Routes.
  - Other.
- Define system requirements to carry data  
forward.

(3) F.o.b. terms:

- Establish impact of shipment size and  
distance relationships on f.o.b. criteria.
- Define system requirements for new f.o.b.  
criteria.

e. Auditing program:

(1) Rates and charges:

- Define second audit groundrules:  
Contractor selection.  
Recovery procedures.
- Develop cost factors:  
Establish GSA auditing costs.  
Establish contractor auditing costs.
- Conduct audit:  
Commercial shipments.  
GBL shipments.
- Evaluate saving/cost relationship:  
GSA audits.  
Contractor audits.  
GSA/contractor audits.
- Define recommended auditing procedures.

(2) Traffic management:

- Develop review area priorities based on:  
Savings potential.  
Frequency of errors.
- Develop cost factors for each review area:  
Direct costs.  
Administrative costs.
- Evaluate savings/cost relationships:  
Continuous review.  
Comprehensive review.
- Define review program.

f. Consolidation:

- Establish aggregation strategy:  
Customers-contractors combinations.  
Products.  
Priority and time intervals.

- Develop average shipment workload by traffic lane to:
  - Combine data by aggregation strategy.
  - Split-total aggregated data by each time interval.
- Develop cost factors:
  - Establish government facility costs.
  - Establish commercial facility costs.
  - Establish transportation costs.
- Evaluate time interval consolidation potential:
  - Direct shipments.
  - Assembly consolidations.
  - Assembly and distribution consolidations.
- Define recommended consolidation program.

#### 4. Define the Improved System

The most cost-effective improvements, resulting from our analysis and evaluation of alternatives, will be defined for implementation and accomplish the following study objectives:

- Budget and cost tracking:
  - a. Budget composition:
    - (1) Establish the cost element to be included in First Destination account.
    - (2) Establish a procedure for handling pass through and recoveries.
  - b. Budget development:
    - (1) Establish the basis for developing budget figures.
    - (2) Define the procedures to be used.
- Cost evaluation:
  - a. Direct shipment criteria:
    - (1) Establish the decision rules for direct shipment evaluation.
    - (2) Define the procedure for use of these rules.
  - b. F.o.b. criteria:
    - (1) Establish the basis for f.o.b. criteria.
    - (2) Designate the vehicle for use of the f.o.b. criteria.

- CCSS enhancement:
  - Define the system changes required to:
    - Increase PWD consolidation.
    - Carry forward key analytical data.
    - Implement f.o.b. decision rules.
- Auditing program:
  - a. Rates and charges:
    - (1) Establish the changes required in audit procedures.
    - (2) Define the procedure for the additional audit.
  - b. Traffic management:
    - Establish the expanded traffic management activity.
- Consolidation:
  - Prepare an operating prospectus including:
    - Facility requirements.
    - Information system requirements.
    - Organizational requirements.
    - Negotiation objectives.

## 5. Implementation Schedule

The proposed implementation schedule to accomplish the recommended system improvements is shown in Figure IV-2. Based on this schedule, we propose to start working immediately on three of the five improvement tasks -- Task 1, Budget and Cost Tracking, Task 2, Cost Evaluations, and Task 5, Consolidation Program. Upon completion of Tasks 1 and 2, we will begin work on Task 3, CCSS Enhancements. This will be followed by Task 4, Auditing Program Improvements. The total elapsed time for completing all improvements programs will be 70 weeks.

Detailed cost figures have been provided to the Study Advisory Group for implementing each of the improvement programs.

Figure IV-2  
Proposed Implementation Schedule

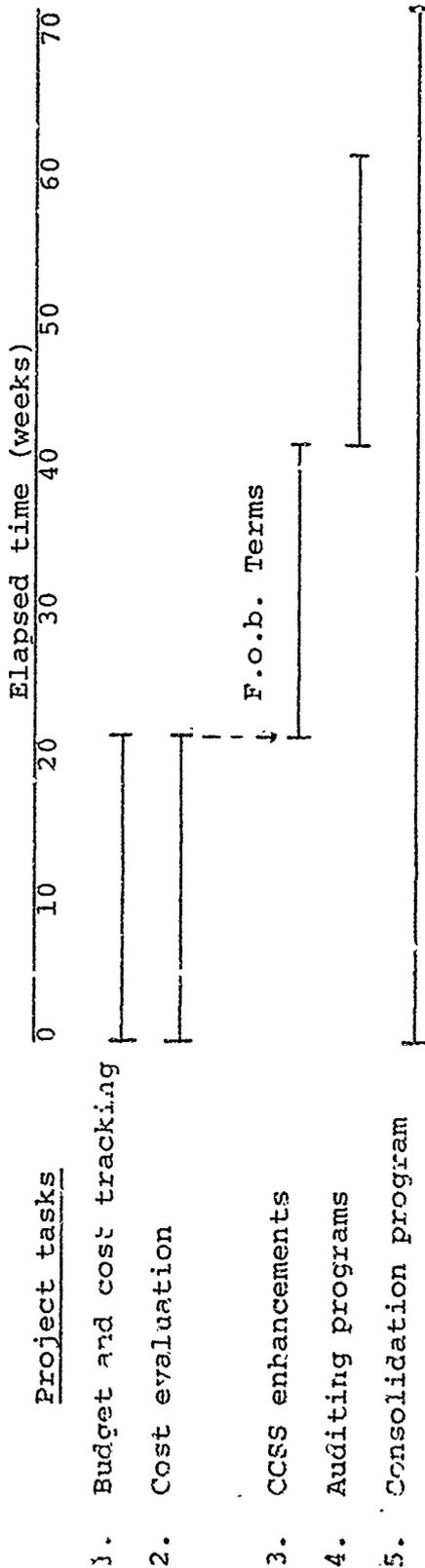


EXHIBIT A

PRESNT' SYSTEM

This Exhibit, consisting of two Schedules, identifies the Defense agencies and personnel interviewed during our study of the Army First Destination Transportation System. The Schedules included are:

- Schedule A-I -- FDT Defense Agencies.
- Schedule A-II -- Personnel Interviewed.

Schedule A-I

FDT Defense Agencies

DARCOM

- ECOM
- TARCOM
  - Detroit Tank Plant (GOCO)
  - AM General (GOCO)
- ARFCOM
  - Lake City AAP (GOCO)
  - Long Star AAP (GOCO)
- TEARCOM
- MIRCOM
- Headquarters
  - Washington, D.C.

DCAS Headquarters

- Washington, D.C.

DCASR

- DCASR-Philadelphia
- DCASR-Cleveland
- DCASR-Chicago
- DCASR-Atlanta
- DCASR-St. Louis
- DCASR-Los Angeles

DCASMA

- Philadelphia
- Detroit
- Cleveland
- Chicago
- Indianapolis
- Atlanta
- St. Louis
- Los Angeles

MTMC

- Eastern Area-Bayonne, NJ
- Headquarters-Washington, D.C.
- Western Area-San Francisco, CA

Army Logistics Management Systems Agency

- St. Louis, MO

USA Finance Materiel Readiness Command

- Indianapolis, IN

General Service Administration

- Washington, D.C.

General Accounting Office

- Washington, D.C.

Schedule A-II

Personnel Interviewed

<u>Interviewee</u>	<u>Title</u>	<u>Organization</u>
Mr. L. Santelli	Transportation Officer	ECOM
Mr. B. Crawford	Section Chief-Tactical Radios	ECOM
Capt. J. Morgan	Procurement Contract Officer	ECOM
Mr. H. Wilk	Director-Budgets	ECOM
Mr. F. Elms	Asst. Director-Budgets	ECOM
Mr. J. Avallone	Asst. to Dir.-Finance	ECOM
Mr. D. McCraw	FDT Fund Administrator	ECOM
Mr. R. Thomason	Chief-Transportation Mgt. Branch	TARCOM
Lt. Col. G. Nolan	Admin. Contract Officer (Tank Plant)	TARCOM
Mr. J. David	Transportation Officer (Tank Plant)	TARCOM
Mr. N. Sampson	Chief-Finance and Accounting	TARCOM
Mr. J. Burnham	Procurement Contract Officer	TARCOM
Mr. G. Gynn	Contract Specialist	TARCOM
Mr. L. McEnroe	Chief-Tactical Vehicle Division	TARCOM
Mr. A. Taylor	Deputy Dir.-Trans. & Traffic Mgt.	ARRCOM
Mr. L. McClellan	Program Analyst-Budgets	ARRCOM
Ms. A. Fetterolf	Transportation Officer (AAP)	ARRCOM
Ms. E. Hodge	Transportation Officer (AAP)	ARRCOM
Mr. A. Williams	Chief-Transportation Branch	MIRCOM
Mr. R. Shaughnessy	Transportation Specialist	MIRCOM
Mr. W. Nance	Budget Analyst	MIRCOM
Mr. G. O'Donnell	Budget Analyst	MIRCOM
Mr. R. Robel	Traffic Manager	TSARCOM
Mr. J. Kamer	Traffic Management Specialist	TSARCOM
Mr. E. Nielson	Traffic Management Specialist	TSARCOM
Mr. E. Asadorian	Budge Analyst	TSARCOM
Mr. L. Carroll	Budget Analyst	TSARCOM
Mr. C. Brown	Regional Transportation Officer	DCASR-Philadelphia
Mr. A. Dann	Admin. Contract Officer	DCASMA-Philadelphia
Mr. R. Dixon	Admin. Contract Officer	DCASMA-Philadelphia
Mr. R. Fink	Transportation Officer	DCASMA-Philadelphia
Mr. K. Jenks	Regional Transportation Officer	DCASR-Cleveland
Mr. D. Gessler	Finance Directorate	DCASR-Cleveland
Mr. D. Connors	Acting Transportation Officer	DCASMA-Cleveland
Mr. W. Stout	Transportation Officer	DCASMA-Detroit
Mr. G. Long	Admin. Contract Officer	DCASMA-Detroit
Mr. R. Lucchetti	Regional Transportation Officer	DCASR-Chicago
Mr. N. Volpe	Transportation Officer	DCASMA-Chicago
Mr. S. Greogry	Transportation Officer	DCASMA-Indianapolis

<u>Interviewee</u>	<u>Title</u>	<u>Organization</u>
Major D. Wiggs	Transportation Staff Officer	DCASR-St. Louis
Mr. E. Ellebracht	Traffic Management Specialist	DCASMA-St. Louis
Mr. J. Everly	Staff Traffic Manager	DCASR-Atlanta
Mr. W. Turner	Transportation Officer	DCASMA-Atlanta
Mr. J. King	Asst. Chief-Transportation and Packaging Division	DCASR-Los Angeles
Mr. R. Fliter	Transportation Officer	DCASMA-Los Angeles
Col. J. Cramer	Dir.-Inland Traffic	MTMC-HQ
Mr. P. Chagnon	Deputy Dir.-Inland Traffic	MTMC-HQ
Mr. T. Curtin	Chief-Negotiations Div.	MTMC-HQ
Col. J. Harbuck, Jr.	Dir.-Inland Traffic	MTMC-EA
Mr. J. Kunkel	Deputy Dir.-Inland Traffic	MTMC-EA
Ms. A. Murphy	Chief-GBL Review and Variance Sect.	MTMC-EA
Mr. M. Delluoms	Branch Chief-Movement	MTMC-EA
Mr. A. Grandinetti	Branch Chief-Rates	MTMC-EA
Col. J. Conroy	Director-Inland Traffic	MTMC-WA
Mr. J. Molton	Branch Chief-General Commodities	MTMC-WA
Mrs. L. Tom	Chief-Traffic Services Division	MTMC-WA
Mr. A. Beltramo	Chief-Freight Analysis Branch	MTMC-WA
Mrs. M. McManon	Chief-Freight Advisory Branch	MTMC-WA
Mr. R. O'Keefe	Sr. Traffic Management Specialist	DARCOM-HQ
Mr. J. Dooley	Chief-Transportation and Packaging Div.	DCAS-HQ
Mr. R. Cromie	Traffic Management Specialist	DCAS-HQ
Mr. A. Sumner	Asst. Dir.-Logistics and Communications Div.	GAO
Mr. P. Dinsmore	U.S. General Accounting Office Representative	GAO
Mr. M. Manchester	Deputy Asst. Commissioner- Transportation Audits	GSA
Mr. S. Schamber	Deputy Director-Traffic	USAFAC
Mr. D. Nagy	Traffic Mgt. Specialist	ALSMA
Mr. E. Showalter	Traffic Manager	A.M. General

EXHIBIT B

FDT STUDY

This Exhibit contains two Schedules which describe the overall approach used by DS/SD during our study of the Army First Destination Transportation System. The Schedules included are:

- Schedule B-I -- Study Approach.
- Schedule B-II -- Sample Interview Guides.

Schedule B-I  
Study Technique

The following approach was used in conducting the study:

1. Identify relevant agencies.

a. The various agencies of the Defense establishment involved in Army First Destination Transportation (FDT) management were identified through discussions with the Department of the Army (DA), the Materiel Development and Readiness Command (DARCOM), the Defense Contract Administration Services (DCAS), and the Military Traffic Management Command (MTMC).

b. The overall organizational structure, general areas of responsibility, and interagency relationships were identified from these discussions and subsequent review of agency literature.

2. Review agency procedures.

a. Publications on agency regulations, procedures, and operating manuals were obtained. These publications included Armed Services Procurement Regulations (ASPR), Army Procurement Procedures (APP), Military Standard Transportation Movement Procedures (MILSTAMP), and Military Traffic Management Regulations (MTMR). A more complete list and description of these documents are provided in Exhibit C, Schedule C-I.

b. The above publications were reviewed to determine the present requirements and procedures of each of the relevant agencies for managing and controlling FDT during the various steps in the contracting cycle.

3. Conduct field interviews.

a. A field visitation schedule, outlining the facilities to be visited and major study areas to be investigated, was developed.

b. Separate Interview Guides were developed for the Materiel Readiness Commodity Commands (CC), the Defense Contract Administration Services (DCAS), and the Military Traffic Management Command (MTMC). An additional Questionnaire Guide was developed for the CC Comptroller and Finance personnel. Sample pages of these Interview Guides are provided in Exhibit B, Schedule B-II.

c. The CC Interview Guide was field-tested with the Electronic Command (ECOM).

d. The Interview Guides were modified based upon the field test with ECOM.

e. The field interviews were continued and completed in accordance with DS/SD's field interview schedule.

4. Tabulate and evaluate interview responses.

a. Upon completion of the field visits, the data were compiled and summarized.

b. The data were analyzed to determine each agency's FDT management practices.

c. The management practices were evaluated in terms of FDT management control.

5. Identify improvement opportunities.

a. Five major improvement programs were identified:

- FDT budget development and cost tracking.
- Development and use of cost evaluation criteria.
- Enhancements to existing control systems.
- Expansion of auditing programs.
- Small shipment consolidation.

Each of these improvement areas is detailed in Section II of this Report.

b. An improvement plan, defining the analytical effort, costs, and recommended implementation priorities was developed. These were detailed further in Section IV of this Report.

Schedule B-II

Sample Interview Guides

Sample --  
Commodity Command Interview Guide

Small Shipments

a. What constitutes a small shipment (under 10,000 lbs.)?

\_\_\_\_\_

b. Is this definition a fraction of the total contract or of each release?

Total \_\_\_\_\_ Each \_\_\_\_\_

c. How frequently do small shipments occur? (1 3 5 7 9)

d. Are small shipments evaluated for possible stopoff and consolidation potentials?

Yes \_\_\_ How is the saving realized? \_\_\_\_\_

\_\_\_\_\_

No \_\_\_ Why not? \_\_\_\_\_

\_\_\_\_\_

e. Which F.o.b. terms would you be inclined to use?

F.o.b. origin \_\_\_\_\_  
F.o.b. destination \_\_\_\_\_

Why? \_\_\_\_\_

\_\_\_\_\_

f. (If terms are automatically F.o.b., destination) What transportation evaluation is made?

\_\_\_\_\_

\_\_\_\_\_

g. How often are the transportation costs the deciding factor on contracts involving small shipments?

(1 3 5 7 9)

Sample --  
Defense Contract Administration Interview Guide

F.o.b., Terms

1. a. How frequently do you make changes in F.o.b. terms?

( 1 3 5 7 9 )

b. What factors most often play a part in requesting changes in F.o.b. terms?

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c. Do you get Commodity Command background data on determination of F.o.b. terms?

No \_\_\_ Yes \_\_\_

(If No) Would this be helpful to you? \_\_\_\_\_  
\_\_\_\_\_

(If Yes) Do you compare this evaluation with your own before recommending changes?

Yes \_\_\_ No \_\_\_

Comments \_\_\_\_\_  
\_\_\_\_\_

2. What procedure is used to maintain surveillance when there has been a change in F.o.b. terms? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. What mechanisms exist to recoup additional FDT costs? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sample --  
MTMC Interview Guide

We would like to get your responses to the following questions so that we may gain a better understanding of your mission as it relates to First Destination Transportation and how your functions interface with DARCOM and DCAS activities.

I. FREIGHT RATE QUOTATIONS

1. How many freight rate requests do you handle per year?
  - a. Total (all services) \_\_\_\_\_
  - b. Army \_\_\_\_\_
  
2. How many of the requests involve FDT? \_\_\_\_\_
  
3. What is the average number of rates furnished per request? \_\_\_\_\_
  
4. What percent of your requests are initiated by:
  - a. DARCOM \_\_\_\_\_ %
  - b. DCAS \_\_\_\_\_ %
  - c. Other \_\_\_\_\_ %\_\_\_\_\_
  
5. What procedures are followed when responding to freight rate requests?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Sample --  
Finance Interview Guide

1. How are FDT funds appropriated?

a. Primary items \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b. Secondary items (support parts-unit cost \$1,000) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

c. Stock funded items (parts under unit cost \$1,000) \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. What latitude does a DARCOM finance and budgeting officer have in making dollar adjustments to FDT appropriations?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. What are the mechanics of FDT fund disbursement? (How do you get money transferred to USAFC?)

\_\_\_ Transportation officer estimates FDT costs on GBL

\_\_\_ Copy goes to DARCOM and USAFC

\_\_\_ Carrier submits GBL to USAFC

\_\_\_ USAFC pays carrier

\_\_\_ Reconciliation of actual vs. estimated costs (How)?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

EXHIBIT C

FDT REGULATIONS AND PROCEDURES

This Exhibit, consisting of two Schedules, describes and compares the various regulations and procedures applicable to the Army First Destination Transportation System. The Schedules included are:

Schedule C-I -- Description of Governing Regulations and Procedures.

Schedule C-II -- Comparison of ASPR and MTMR Regulations and Procedures.

Schedule C-I

Description of Governing Regulations and Procedures

Armed Services Procurement Regulations (ASPR). Defines standards which Procurement Officers must apply when they purchase supplies and services with appropriated funds.

Army Procurement Procedure (APP). Designed to supplement and explain prescribed policies, methods, and standards governing the Army procurement of supplies and services under ASPR.

Military Traffic Management Regulations (MTMR). Prescribes policy and procedures for the procurement and use of commercial transportation service within the Continental United States (Army Regulation 55-355).

Military Standard Transportation Movement Procedures (MILSTAMP). Prescribes procedures for controlling the movement of cargo consigned to either an air or water terminal transshipment point.

Schedule C-II

Comparison of ASPR and MTMR  
Regulations and Procedures

<u>Topic</u>	<u>ASPR provisions</u>	<u>MTMR provisions</u>
• Consolidate less load shipments by contractor or area	19-216	211006
• Methods for evaluation of f.o.b. origin contracts	19-208.2 19-212 Clauses 7-104.70 7-104.72 7-2003.16 7-2003.19 7-2003.23 7-2003.24	Chap. 227 (in Part. 227005) also, 202003
• Contractor's responsibility to state quantities to be loaded in carload/truck shipments	19-209 7-104.72 7-2003.24 (b)	
• Reversion clause in f.o.b., origin and destination solicitations	19-215, 19-217.1 19-403.2 7-104.75	214073 214074
• Use of tentative freight classifications on solicitations	19-202 7-2003.17	Chap. 211, MTMR
• Separate prices for rail and motor in f.o.b., destination solicitations	19-207	102004
• Identification of f.o.b., destination terms and transportation cost	19-208.3 7-104.71 7-104.76	Chap. 210, MTMR

<u>Topic</u>	<u>ASPR provisions</u>	<u>MTMR provisions</u>
• TMO input to procurement on transportation matters	19-102 19-103	Chaps. 104, 227 (also, see 201, 202, 222)
• F.o.b., origin/destination determination	19-104	Pp. 102-1 to 102-3
• Presolicitation board		
• Evaluation of bids and determination of mode(s) and rates	19-207 19-208.2 19-208.4 19-212 19-213.1(d)	Chap. 227
• Request for rates/accuracy and timeliness of rates	19-202 19-217	Chap. 222
• Utilization of data	19-202(c) 19-202(d)	
• Cost and pricing analyses	19-301 15-205.45 15-711.27 15-309.43 16-822 7-2003.70	
• Effectiveness and usage of transportation cost data	19-205 19-206	
• Request for route orders		Pp. 202-1 to 202-9
• Use of volume movement reporting	19-402	Pp. 201-2
• Effectiveness of post-award coordination	19-402	
• Analysis and followup on contracts	19-401	

<u>Topic</u>	<u>ASPR provisions</u>	<u>MTMR provisions</u>
• Evaluation of performance		
• Monetary reimbursements		
• Use of transit privileges	19-206(b)	Pp. 201-4 Chap. 210
• Advantageous stock positioning	19-100	
• Packaging configuration changes	1-1204	
• Volume movement reporting	19-402	Pp. 201-2
• Cost reduction programs		
• F.o.b., origin with tentative destination clause	19-403	Pp. 214-31
• Postaward analysis, advice, coordination with supporting DCASR's	19-401	Chap. 225
• Solicitation terms on high-priority items		
• Guaranteed maximum shipping weights/dimensions	19-210	
• Information flow	19-101, 19-213.2 19-406, 19-407	
• Shipping schedules/loading plans	19-407	
• Freight classification	19-202(b)	Pp. 211-1
• Bills of lading		Pp. 214-1 to 214-3

EXHIBIT D

FDT BUDGETS

This Exhibit, consisting of two Schedules, identifies the Army FDT budget for Fiscal Year 1978 as estimated by the U.S. General Accounting Office (GAO). In addition, this Exhibit also describes the various budgeting approaches currently being used by the Commodity Commands to project FDT costs for primary items. The Schedules included are:

- Schedule D-I -- FDT Budget -- Fiscal Year 1978.
- Schedule D-II -- FDT Budgeting Approaches.

Schedule D-I

FDT Budget -- Fiscal Year 1978<sup>a</sup>

<u>Object classification</u>	<u>Dollar estimate<sup>b</sup></u>
2031-Aircraft Spares	1,342,000
2032 (Missiles)	1,513,000
2033-Weapons and Tracked Vehicles	8,533,000
2034-Ammunition	55,234,000
2035 (Other)	<u>22,622,000</u>
Total	89,244,000

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<sup>a</sup>Source: U.S. General Accounting Office.

<sup>b</sup>These amounts are actual figures stated in Fiscal Year 1978 budget (line items 22 on pages 240 through 243).

Schedule D-II

FDT Budgeting Approaches<sup>a</sup>

(Primary items)

<u>Commodity Command</u>	<u>Description of budgeting approach</u>
ECOM	Uses a transportation factor of 1½ percent. This factor is applied to the total cost of primary items to be procured.
TARCOM	Uses a transportation factor of 2.7 percent. This factor is applied to the deliverable portion of primary item costs to be procured.
ARRCOM	Uses different transportation factors for ammunition and weapons. <ul style="list-style-type: none"><li>- <u>Ammo</u> -- uses a total factor of 7.0 percent based on 4.0 percent for inbound government-furnished materiel and 3.0 percent for outbound ammo. These factors are applied to the deliverable portion of primary item costs to be procured.</li><li>- <u>Weapons</u> -- uses actual transportation costs based on the number of units to be delivered.</li></ul>
TSARCOM	Uses different factors for troop support and aircraft items. <ul style="list-style-type: none"><li>- <u>Troop support</u> -- uses a transportation factor of approximately one percent. This factor is applied to the "total" primary item costs developed three years ago, i.e., the 1978 FDT budget will reflect the 1975 hardware costs.</li><li>- <u>Aircraft</u> -- uses actual transportation costs based on the number of units to be delivered.</li></ul>
MIRCOM	Uses a variable transportation percentage factor. This factor is applied to the deliverable portion of primary item costs to be procured.

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<sup>a</sup>Source: U.S. Army Commodity Commands.

EXHIBIT E

COMMODITY COMMAND STANDARD SYSTEM

This Exhibit contains the following three Schedules, which describe the purpose, scope, objectives, and general operation of the CCSS Program:

Schedule E-I -- CCSS Description.

Schedule E-II -- Sample Printout -- Recommended F.o.b. Terms and ASPR Clauses.

Schedule E-III -- CCSS F.o.b. Decision Rules.

Schedule E-I

CCSS Description<sup>a</sup>

1-1. Purpose. This instruction provides the information necessary to accomplish the functional mission required for the establishment and maintenance of data elements which will become the data base for the entire automated system for planning, evaluating and controlling transportation (ASPECT).

1-2. Scope. These instructions apply to all elements of the US Army Materiel Command (AMC) upon implementation of the Commodity Command Standard System (CCSS) whose mission involves responsibility for traffic management support to the commodity commands.

1-3. Definitions. Data elements and their mnemonics used in this publication are set forth in the AMC Data Element Dictionary (AMC DED) volumes 1 and 2, ANCP 18-1.

1-4. Objective. The objective of this document is to provide users with functional guidance and information required to implement and/or operate under the standard systems of the AMC Five Year ADP Program.

1-5. Policies. Once an element of AMC has been directed to operate under the CCSS, the data contained in this instruction become a part of CCSS and is mandatory.

1-6. Responsibilities. The ASPECT system is based on the traffic management segment of the National stock number master data record (NSNMDR). Primary responsibility for the maintenance of this segment rests with the commodity command traffic manager who must rely on the completeness, accuracy and accessibility of its data. Responsibility for developing and entering input data documents is shared with other activities as follows:

a. Commander, Military Traffic Management Command (MTMC).

(1) Assigns confirmed freight classification and Military Standard Transportation and Movement Procedures (MILSTAMP) codes on all items within the transportation pipeline.

(2) Forwards input transactions in accordance with Defense Integrated Data System (DIDS) procedures.

b. Defense Logistics Services Center (DLSC).

(1) Enters data into the DIDS data bank.

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<sup>a</sup>Source: CCSS Operating Instructions, Volume 1, CCSS01 18-55-100.

(2) Forwards freight classification and MILSTAMP data to the commodity command traffic manager.

c. Commodity command traffic management activity superv'sor.

(1) Assigns non-confirmed freight classification and MILSTAMP codes on materiel managed by the commodity command. (Only MTMC can authenticate or confirm data developed by the commodity command.)

(2) Prepares hardcopy documentation of locally developed freight classification and MILSTAMP codes for inclusion into the commodity command NSNMDR, and entry into the DIDS.

(3) Reviews rejects of invalid transactions and initiates actions to reconcile all discrepancies.

1-7. References: The following publications are related to this instruction:

a. DOD 4500.32-R, Military Standard Transportation and Movement Procedures.

b. AR 55-355, Military Traffic Management Regulation.

c. CCSSOI 18-1-25, Volumes 1 and 2, AMC Reference Number and National Stock Number Master Data Record File Guide.

d. Volume 1, CCSSOI 18-516, Traffic Management Data.

e. Volume 1, CCSSOI 18-55-101, DIDS Traffic Management Data.

f. Volume 1, CCSSOI 18-708-101, NSNMDR Keved Inquiry System.

g. Volume 5, CCSSOI 18-708-102, Interrogations.

h. Volume 1, CCSSOI 18-725-101, DOD Activity Address File.

i. Volume 1, CCSSOI 18-725-105, Multi-Daily Closeout.

2-1. Concept. a. This subsystem will add to the effectiveness of traffic management at the commodity commands through:

- (1) Improved response, accuracy and broader application of principles.
- (2) More thorough surveillance of functions and actions which result in the expenditure of transportation funds.

b. As a vital part of the ASPECT, this data base will assure complete traffic management support to the various elements of the commodity command in the management of their items from initial procurement, positioning, through delivery to world wide customers, and ultimate return for final disposition.

c. Traffic management data (TMD) will be processed on an as required frequency, but not less than weekly. Input is received from MTMC (through the DIDS) and from the commodity command traffic manager. File update and output products will be described in following chapters.

d. MTMC developed freight classification is based on information furnished by the commodity command responsible for management of the item. This data includes type of materiel, dimensions and shipping characteristics, in addition to drawings, photographs, etc. MTMC transmits the following transportation data elements to the DLSC after classifying the item:

- (1) National motor freight classification (NMFC) item number.
- (2) Uniform freight classification (UFC) item number.

e. The DLSC maintains a master freight file, within their computer, designed by MTMC. This file contains both freight classification and MILSTAMP data keyed to the NMFC number. The following data elements are extracted from this file, placed into the DIDS central data bank, and also disseminated to all users in the field:

- (1) NMFC item number.
- (2) UFC item number.
- (3) NMFC description.
- (4) LTL (less than truckload) rating.

- (5) LCI (less than carload) rating.
- (6) Rail variation indicator.
- (7) Supplementary freight classification guide description.
- (8) Water commodity code.
- (9) Type of cargo code.
- (10) Exception handling code.
- (11) Air dimension code.
- (12) Air commodity code.
- (13) Special handling code.

f. In addition to the data elements shown in paragraph e above, a computer generated NOS (not otherwise specified) exception indicator is placed into the NSNMDI. This code results from an examination of the water commodity code, and will be utilized in subsequent ASPECT subsystems. The NOS exception indicator identifies those items shown in appendix B, water commodity and exception codes of DCD 4500.32-R whose description is followed by NOS.

g. The commodity command traffic manager is also charged with the responsibility to develop freight classification and MILSTAMP data. This locally developed data is so coded and retained in the commodity command NSNMDR until it is replaced by MTMC confirmed and authenticated data.

h. To identify MTMC developed data that the commodity command traffic manager considers incorrect a traffic management data integrity code has been provided. This code, placed into the file through action taken by the traffic manager, is removed when corrected data has been received from MTMC through the DLSC.

2-2. Capabilities. TMD serves as a tool for the traffic manager. Through its application, the traffic manager influences other logistical activities, including procurement and supply operations, as well as in the transportation area itself.

a. Procurement. In procurement, traffic managers deal with contracting officers, contract administration personnel and contractors. Their management functions are directed toward the out-bound movement of cargo from the vendors. TMD provides the basis for traffic management recommendations on the invitation for bid (IFB) and for request for proposal (RFP). In addition, TMD supports considerations necessary to evaluate bids and proposals prior to contract awards, reporting movements having potential for volume rate negotiations, and finally for issuing Government bills of lading.

b. Supply actions. Upon award of a contract, and during the procurement lead time, the traffic manager examines each contract to determine if changes in temporary positioning of stock can effect saving of transportation funds. A study is prepared for consideration by the item manager. TMD is required to initiate the study since these data elements lead to other transportation files and tables which provide information for performing computations. During materiel release ordering, the traffic manager uses TMD as the bridge between the supply document and the transportation files and tables to make traffic management recommendations to the item manager. TMD is added to excess materiel offerings to provide the item manager with information required for making a decision regarding acceptance or rejection of excess, and its proper positioning for future use. Finally, TMD is an essential tool in the determination of any traffic management/transportation consideration for use in stock control and supply management activities.

2-3. Major files. a. The NSNMDR is an integrated master record maintained in NSN sequence. This master file is a compilation of major files (e.g., Federal cataloging records, procurement histories, requirements, stock control, etc.). TMD that has a day to day bearing on these integrated records is recorded in sector 16, segment 04. The layout for segment 04 is in appendix A.

b. The reference number file (REFNO) is an address system for the NSNMDR. This system uses this file to validate the existence of a record, and secure its proper location (address) within the NSNMDR.

2-4. Transaction validation. a. All input into this subsystem will be screened by the DIDS edit/validation process described in volume 1, CCSSOI 18-55-101. Only those transactions meeting the DIDS criteria will be forwarded to TMD. Those valid transactions will be sorted by National item identification number (NIIN) (major) and document identifier code (DIC) (minor). The transaction will then be validated in accordance with the criteria established for that DIC. TMD transaction recognition information is contained in appendix B.

b. Each input transaction will be individually processed in its entirety prior to processing the next transaction. Transactions containing error conditions will be rejected and a rejected transaction list dispatched to the commodity command traffic management activity supervisor. Reject/decision codes for each type input transaction are contained in appendix C.

2-5. Operation. Transactions prepared by the commodity command traffic manager are simultaneously processed within the CCSS for entry into the commodity command NSNMDR and transmitter by the DIDS to DLSC. DLSC then updates the DIDS central data bank and forwards this information to MIMC for confirmation and ultimate return to the field through DLSC. The following transaction processes describe the operational features of the TMD subsystem:

a. DIC LAN , add non-confirmed freight classification data, is prepared by the commodity command traffic manager. This transaction is used to add both freight classification and MILSTAMP data to the NSNMDR when none exists. (Transaction requires two cards.)

b. DIC LCN , change non-confirmed freight classification data, is prepared by the commodity command traffic manager. This transaction is used to change non-confirmed freight classification and/or MILSTAMP data and will replace data that has previously been entered into the NSNMDR by a LAN transaction. All data elements to be retained or changed must be submitted. (Transaction requires two cards.)

c. DIC LDN , delete non-confirmed freight classification data, is prepared by the commodity command traffic manager. This transaction is used to delete non-confirmed data that has previously been entered into the NSNMDR by LCN and/or LAN transactions. (Transaction requires one card.)

d. DIC KAF , add MTMC confirmed freight classification data, is prepared by DLSC from transactions received from MTMC through the DIDS and will replace non-confirmed data placed into the NSNMDR by the commodity command traffic manager. (Transaction contains three cards.)

e. DIC KCF , change MTMC confirmed freight classification data, is prepared by DLSC from transactions received from MTMC through the DIDS and will replace data previously developed by MTMC. (Transaction contains three cards.)

f. DIC KDF , delete MTMC confirmed freight classification data, is prepared by DLSC from transactions received from MTMC through the DIDS and will delete data previously developed by MTMC. (Transaction contains one card.)

g. DIC KNA , notification of approval, is prepared and forwarded by DLSC to the submitting activity of DIC LAN, LCN, and/or LDN transactions to advise that activity that their LAN, LCN and/or LDN transactions have been received, processed and approved by DLSC. (Transaction contains one card.)

h. DIC Y8A , notice of suspected invalid data, is prepared by the commodity command traffic manager. This transaction is used to identify MTMC confirmed freight classification and MILSTAMP data believed to be in error and for which corrective action must be initiated. This Y8A input will be rejected when processed against commodity command developed data. The letter P is placed into the traffic management data integrity code of sector/segment 16/24 of the NSNMDR. The commodity command traffic manager will immediately report the suspected error condition to MTMC for reconciliation and issuance of a KCF transaction by DLSC. The traffic management data integrity code will be cleared from the NSNMDR when corrected input is received from DLSC as a result of direct contact by the commodity command traffic manager with MTMC.

i. DIC KAT, add total item record data, is prepared by the DLSC as the result of a new NIIN, the reinstatement of a NSN, or your activity being added as a data receiver to this item. Although this transaction may contain either confirmed or non-confirmed data, it will be treated as a LCN, change non-confirmed freight classification data, and entered into sector 16, segment 04 of the NSNMDR. Dissemination of this data through the DIDS process will not be made, as normally accomplished by the LCN, since DLSC triggered the action with a KAT and has placed this data into the DIDS data bank by a previous action. (Transaction requires two cards.)

j. A traffic management data source code is maintained within the NSNMDR to denote priority of each entry into the record. Appendix D contains a matrix defining the specific actions which will result when transactions of each priority are processed against the NSNMDR. Indicated below is the priority sequence (listed in descending order) for each type of transaction.

(1) "A" priority input consists of confirmed freight classification and MILSTAMP data developed by MPMC and distributed by the DIDS through DLSC.

(2) "B" priority input consists of non-confirmed freight classification and MILSTAMP data developed by the commodity command traffic manager.

k. The letter N placed into the not otherwise specified exception indicator within sector/segment 16/04 of the NSNMDR will identify water commodity codes whose description is followed by NOS.

l. Procedures to interrogate the NSNMDR and/or the DIDS central data bank can be found in the following publications.

(1) Volume 5, CCSSOI 18-708-102 (for NSNMDR inquiries), Interrogations, (chap 4).

(2) Volume 1, CCSSOI 18-708-101 (for DIDS central data bank), NSNMDR Keyed Inquiry System, (chap 4).

m. The TMD is printed on each procurement work directive (PWD) prepared by the automated procurement process.

Schedule E-II

Sample Printout -- Recommended F.o.b. Terms and ASPR Clauses<sup>a</sup>

\*\*\*\*\*

\* TRAFFIC MANAGEMENT FACILITIES IN THE PROCUREMENT PACKAGE \*

PRCA	STOCK-NUMBER	FRM-DATE	PHY-SRC-PILFERS	SPEC-CONTROL-ITEM	CNOTY-MGMT-STRUCTURE-TITLE	DATE-PRTO														
097532201CA	6135009260827	77205	U	0	BATTERY DRY FA-JLCO/U	77206														
NR	IMG	SEQ	MAT	TYF	FXC	AIR	ALR	NATIONAL-MCICR-FREIGHT	LTL	LCL	RAL	KVEC	LFC	SUPL	NOS	JMG				
PS	SRC	NBR	CND	CRG	HND	DIA	SPH	CLASSIFICATION-DESCRIPTION	RTG	RTG	VAR	ITEM	NBR	ITEM	NBR	FCGD	EXC	INT		
75	A	112	5R2	Z	S	A	HZ	BATTERIES ELECTRIC DRY CELLS	S	S	S	CG06C690								
W059	CUP	CCP	24	W4	CCB4	CTF	LNCH	ICC	XX	INCA	IFC	DOE	USWGT	UPCL3	UPRNY	UPLGTH	UPRPH	PKG-REFEA	DPK	RD
18	E	X	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	000690	00048	0	0	0	ML510726	A	0E

FOR ORIGIN (CONUS DESTINATIONS) IS RECOMMENDED TO PROCURE MATERIAL REQUESTED BY THE COCLYMENT INDICATED ABOVE. THE FOLLOWING ESPO/TRANSPORTATION CLAUSE CODES SHOULD BE CONSIDERED IN CONJUNCTION WITH THIS RECOMMENDATION:

- 2-201(A)(I)(X) 7-102.25 7-104.70 7-104.85 7-105.
- 2-201(A)(I)(VI) 2-201(A)(I)(VII) 2-201(A)(I)(VIII)

AMENDMENT TO THE SUBJECT FCAN AND/OR ITS CONSOLIDATION WITH OTHERS INTO A SINGLE PROCUREMENT ACTION WHICH AFFECTS QUANTITIES OR DESTINATIONS HEREIN CONSIDERED, COULD CAUSE A CHANGE IN APPLICABLE TRANSPORTATION AND TRAFFIC MANAGEMENT FACTORS. SHOULD SUCH AMENDMENT OCCUR OR CONSOLIDATION BE CONTEMPLATED, IT IS SUGGESTED THAT THIS RECOMMENDATION, TOGETHER WITH DESIGNATION OF AGENCIES AND/OR OTHER PRONS INVOLVED, BE RETURNED FOR ADDITIONAL TRAFFIC MANAGEMENT REVIEW AND PERMISSION. IF THE OPTICA CLAUSE OF AN EXISTING CONTRACT IS EXERCISED TO SATISFY THIS FCAN, DISREGARD THE ABOVE RECOMMENDATIONS.

THIS RECOMMENDATION REFLECTS THE DELIVERY-SCHEDULE-QUANTITY ONLY FOR THIS FCAN.

<sup>a</sup>Source: Automated Logistics Management Systems Agency, St. Louis, Missouri.

Schedule E-III

CCSS F.o.b. Decision Rules<sup>a</sup>

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Decisions are based, in part, on the destinations directed by the PWD. These destinations are divided into overseas, CONUS depot, and CONUS other than depot categories. Overseas destinations for Army activity address codes are identified by examining the first three positions of the address. Activity address codes of other services and industrial contractors have no relationship to defined geographical areas. Overseas determination for other than an Army address is accomplished through utilization of Volume 1, CCSSOI 18-725-101, DOD Activity Address File, Appendix I, Table I-1, Zip Code/APO/FPO Conversion Table. CONUS depots are identified by the sub-to-prime E index described in Volume 1, CCSSOI 18-725-105, Multi-Daily Closeout. Addresses that are neither overseas nor CONUS depot will be designated as CONUS, other than depot destinations. All Military Assistance Program (MAP) addresses indicated in grant aid documents are reflected as overseas destinations. Documents for foreign military sales (FMS) materiel will not be processed. The following message will be printed on the TM hardcopy when FMS actions are identified:

Traffic Management recommendations will not be furnished as conditions of sale have been negotiated by the country purchasing this materiel.

Although some user commands store an in-the-clear weight, others have adopted Military Standard (MIL-STD) 726 codes. When MIL-STD 726 codes are contained within the NSNMDR, an internally contained conversion table will provide an in-the-clear weight. Shipping weight to each destination shown on the PWD is computed by multiplying the quantity by the unit package weight, then dividing this result by the unit package quantity. The shipping weight is then subtracted from the break-even weight (app J). When the shipping weight is greater than the break-even weight, the quantity involved will be considered to be a volume shipment. The weight corresponding to a specific rating shown in the volume weight table in appendix K is then subtracted from the shipping weight. (This occurs only when the shipping weight exceeds the break-even weight.) When the shipping weight is less than the volume rate, the result will be indicated in the message shown below and will be printed on the TM hardcopy:

An additional quantity of XXXXX lbs can be transported at no increase in transportation costs to the destination indicated above.

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<sup>a</sup>Source: CCSS Operating Instructions, Volume 1, CCSSOI 18-55-100.

The physical security and pilferage status of the item is now examined. Should a code of either an A, B, C, D, E, F, G, H, J, K, L, Sort be found, a F.O.B. origin basis (either CONUS or overseas, according to destination) will be recommended. Items that do not contain the previously stated codes will be evaluated for destination and weight in accordance with the decision logic chart contained in appendix I. After an F.O.B. basis has been selected, one of the six following messages will be printed on the TM hardcopy. ASPR/transportation clause codes (provided by the user commands) will be listed immediately following the message.

(a) F.O. B. origin (CONUS destinations) is recommended to procure materiel requested by the document indicated above. The following ASPR/transportation clause codes should be considered in conjunction with the recommendation: (Clause codes will be shown here.)

(b) F.O.B. origin (overseas destinations) is recommended to procure materiel requested by the document indicated above. The following ASPR/transportation clause codes should be considered in conjunction with this recommendation: (Clause codes will be shown here.)

(c) F.O.B. destination (CONUS destinations) is recommended to procure materiel requested by the document indicated above. The following ASPR/transportation clause codes should be considered in conjunction with this recommendation: (Clause codes will be shown here.)

(d) F.O.B. CONUS Port of Loading (overseas destinations) is recommended to procure materiel requested by the document indicated above. The following ASPR/transportation clause codes should be considered in conjunction with this recommendation: (Clause codes will be shown here.)

(e) F.O.B. origin and/or CONUS Port of Loading (overseas destinations) is recommended to procure materiel requested by the document indicated above. The following ASPR/transportation clause codes should be considered in conjunction with this recommendation: (Clause codes will be shown here.)

(f) F.O.B. origin and/or destination (CONUS destinations) is recommended to procure materiel requested by the document indicated above. The following ASPR/transportation clause codes should be considered in conjunction with this recommendation: (Clause codes will be shown here.)

Recommendations of F.O.B. origin (overseas destinations), F.O.B. CONUS Port of Loading (overseas destination), and F.O.B. origin and/or CONUS Port of Loading (overseas destination) will have, in addition to the F.O.B. basis recommendation and ASPR/transportation clause codes, the following message printed on the TM hardcopy:

Military or commercial ocean terminals and aerial ports of embarkation with port handling and ocean transportation charges or air cargo rates will be provided by the traffic manager on separate documentation.

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The following message will be generated for each PWD on which transportation recommendations are made.

Amendment to the subject PRON and/or its consolidation with others into a single procurement action, which affects quantities or destinations herein considered, could cause a change in applicable transportation and traffic management factors. Should such amendment occur or consolidation be contemplated, it is suggested that this recommendation, together with designation of amended and/or other PRONS involved, be returned for additional traffic management review and resubmission. If the option clause of an existing contract is exercised to satisfy this PRON, disregard the above recommendations.

This message, in addition to all recommendations, will be printed on TM hardcopy.

(11) The delivery-schedule-quantity (D-S-Qty) for each document will be compared to the net-due-in-quantity (N-D-I-Qty). When the D-S-Qty is less than the N-D-I-Qty, the following message will be written:

This recommendation reflects the delivery-schedule-quantity only for this PRON.

Appendix L

DECISION LOGIC TABLE

The table shown below is utilized to determine the applicable F.O.B. basis. Questions number 1, 2, 3 and 4 are answered with either a YES (Y) or NO (N), which is then placed within the square directly opposite the question. Each vertical column represents one of six sets of separate conditions that relate to the four F.O.B. basis shown directly beneath the questions. When more than one 'X' appears in any given column, multiple recommendations are in order.

	1	2	3	4	5	6
1. Is destination a CONUS depot?	Y	Y	N	N	N	N
2. Is destination overseas?	N	N	Y	Y	N	N
3. Is destination CONUS, other than depot?	N	N	N	N	Y	Y
4. Does weight exceed break-even point?	N	Y	N	Y	N	Y
1. F.O.B.origin (CONUS)		X				X
2. F.O.B. origin (OVERSEAS)				X		
3. F.O.B. destination (CONUS)	X				X	X
4. F.O.B. CONUS Port of Loading			X	X		

EXHIBIT F

GENERAL SERVICES ADMINISTRATION TRANSPORTATION AUDITS

This Exhibit contains data on the transportation audits conducted by GSA for Fiscal Year 1977.

Audit Summary<sup>a</sup>

(Dollars)

Overcharges collected	10,059,955
Special collections	<u>1,428,310</u>
Total actual dollars collected and returned to agencies	11,488,265
Reduction in claims	430,887
Reduction in preaudited bills	<u>2,293</u>
Total cost avoidance	<u>433,180</u>
Total savings for transportation audits for Fiscal Year 1977	<u><u>11,921,445</u></u>
Portion of collected overcharges credited to Army Management Fund	= 3,391,528.

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<sup>a</sup>Source: GSA, Mr. Miles Manchester, Deputy Asst. Commissioner -- Transportation Audits.