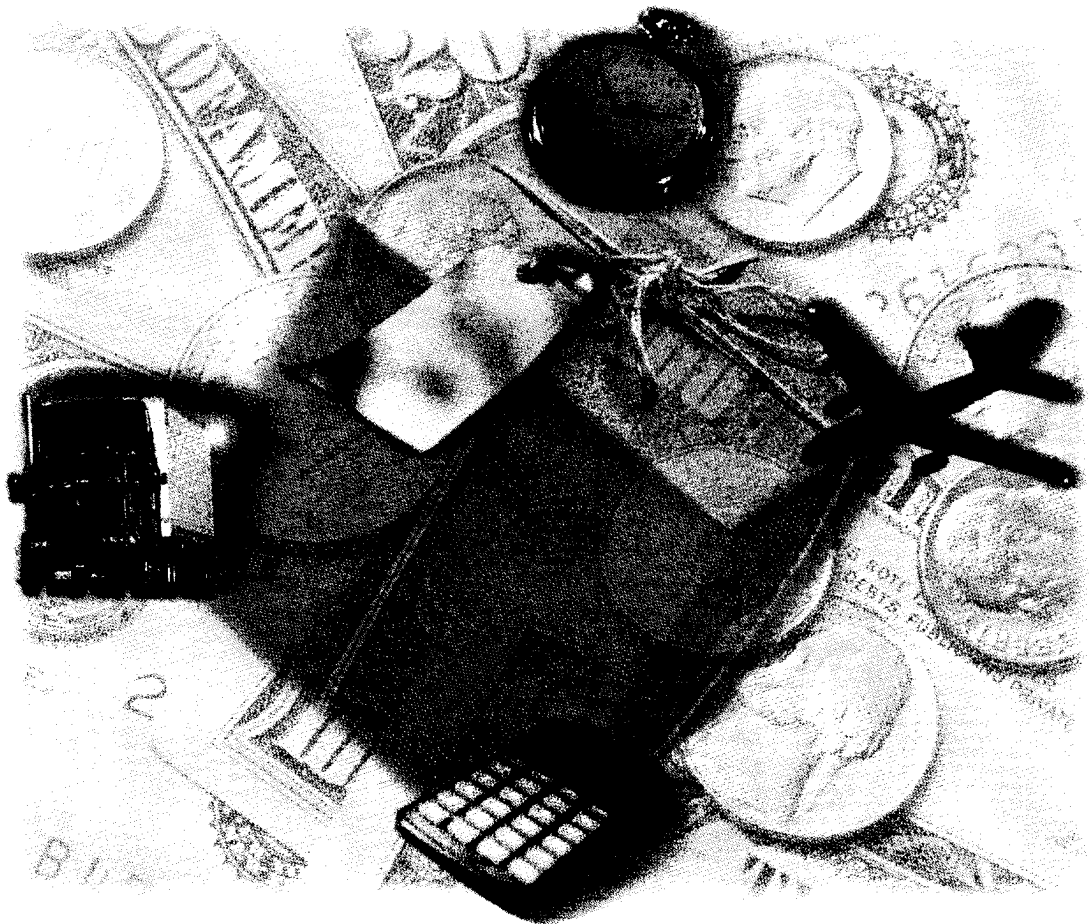


Paying Commercial Express Shipments at the Defense Finance and Accounting Service—Indianapolis Center

DF601R9



19970527 068

LMI

Paying Commercial Express Shipments at the Defense Finance and Accounting Service— Indianapolis Center

DF601R9

January 1997

W. Michael Bridges

Prepared pursuant to Department of Defense Contract DASW01-95-C-0019. The views expressed here are those of the Logistics Management Institute at the time of issue but not necessarily those of the Department of Defense. Permission to quote or reproduce any part except for government purposes must be obtained from the Logistics Management Institute.

Logistics Management Institute
2000 Corporate Ridge
McLean, VA 22102-7805

Paying Commercial Express Shipments at the
Defense Finance and Accounting Service –
Indianapolis Center

DF601R9/JANUARY 1997

Executive Summary

The Air Force and the small parcel industry recently developed improvements in processing small parcel express shipments. The Air Force wants to use electronic data interchange (EDI) and centralize the payment function for the transportation bills of these shipments. The Defense Finance and Accounting Service – Indianapolis Center (DFAS-IN) tasked LMI to identify issues that need to be resolved and to develop an operating concept for paying those bills.

Before a centralized payment concept is implemented, these two questions must be answered:

- ◆ Which DFAS-IN automated system best supports the commercial express shipment payments and requires the fewest modifications?
- ◆ Will the fee that DFAS-IN charges the Air Force for payment and accounting services increase if a centralized payment concept is adopted?

We evaluated three DFAS-IN systems that could accommodate express commercial bill of lading (CBL) payments. We recommend DFAS-IN use the Corps of Engineers Financial Management System (CEFMS). It will soon have EDI and electronic funds transfer capabilities. Most importantly, CEFMS requires only one modification. In addition, a DoD EDI implementation convention must be developed to process express CBL payments. We recommend using the American National Standards Institute Accredited Standards Committee X12 858 shipment information transaction set.

The total fee that DFAS-IN charges the Air Force is not likely to increase. Costs incurred by local accounting stations should decrease as the payment function is transferred to a centralized location. In addition, DFAS-IN is considering a separate fee for customers that use EDI under the centralized payment concept. The rate should be considerably lower than that charged for payment services supported by paper processing.

We recommend the carrier's invoice be presented to the transportation office (TO) responsible for the shipment. The TO certifies that shipment charges are appropriate and accurate, and an electronic payment authorization is transmitted to DFAS-IN, which provides data for payment and accounting processing.

Implementing EDI to process and pay CBLs will allow DFAS-IN to maintain a key role in paying transportation bills as GBLs are replaced by CBLs. In addition, the operating concept can be expanded to encompass the Military Services and the Defense Logistics Agency as they automate express CBL shipments.

Contents

Introduction.....	1
SYSTEMS EVALUATION	2
EDI Capability	3
Accounting and EFT Disbursement Capabilities.....	3
Migration System Designation.....	3
System Modifications	3
Assessment.....	4
AUTOMATION REQUIREMENTS	4
DFAS-IN CUSTOMER SERVICE FEES	5
OPERATING CONCEPT	5
Audit Procedures.....	7
NEXT STEP	7

Paying Commercial Express Shipments at the Defense Finance and Accounting Service—Indianapolis Center

INTRODUCTION

The Air Force is improving its process for managing and paying for small parcel express shipments. As part of this effort, it wants to use electronic data interchange (EDI) to streamline how transportation bills for these shipments are paid.

The Air Force's improvement efforts are occurring as other initiatives within the Department of Defense (DoD) are improving the commercial shipment process and expanding the use of electronic commerce to respond to the changing transportation marketplace. In particular, the Defense Finance and Accounting Service – Indianapolis Center (DFAS-IN) is leading several efforts to automate the payment of transportation bills.

Small parcel companies such as FedEx are becoming more competitive with traditional less-than-truckload carriers such as Roadway Express, Inc. for transporting larger shipments. DoD is taking advantage of the transportation savings offered by small parcel companies. However, the increased use of these companies expands the use of commercial bills of lading (CBLs). As a result, the government bill of lading (GBL) payments processed by DFAS-IN could decrease significantly.

Because of the increased application of CBLs, the U.S. Transportation Command asked the General Services Administration (GSA) to remove restrictions on CBLs for DoD shipments. CBLs are restricted by charge, weight, and size limitations. However, even with these restrictions, CBLs are used for approximately 5 million shipments annually within DoD.

To benefit from the changes in the transportation marketplace, the Air Force and the small parcel industry developed a management information system to process express shipments. The system – the Standard Transportation Industry Information Processor (I2P) – is part of the Air Force's Cargo Movement Operations System (CMOS). The I2P uses commercial express shipment rates, produces a commercial freight bill that doubles as the daily shipment manifest and the carrier's invoice, and transmits shipment information to the carrier via EDI. The Air Force plans to field I2P at 162 sites by March 1997 and use it to generate approximately 40,000 shipments per year. This availability of automated

shipment information offers significant opportunities to streamline the payment process for commercial express shipments.

The Air Force proposes to centralize the payment function at an EDI-capable center and has asked DFAS-IN to pay the bills for these shipments. Air Force commercial express shipments are now paid by local and regional finance offices that do not have an EDI capability. While centralizing payments using EDI will be more efficient, the Air Force's primary objective is to stop using local funds to pay for these shipments.

Because of Defense transportation's greater user of CBLs and the Air Force's request for DFAS-IN's support, DFAS-IN tasked LMI to identify issues that need to be resolved and to develop a concept of operations to pay for Air Force shipments electronically. Our analysis identified two areas of concern. The first, automation capability, raises two questions:

- ◆ Which automated system available to DFAS-IN best supports commercial express shipment payments?
- ◆ What automation development is necessary?

The second issue addresses a concern raised by the Air Force. Will the fee that DFAS-IN charges the Air Force for payment and accounting services increase if the centralized payment concept is adopted?

This report answers those questions in the following five sections. The first section evaluates management information systems at DFAS-IN that can be used to pay commercial express shipments. The second addresses automation requirements. The third discusses DFAS-IN customer service fees. The fourth describes a payment operating concept. Finally, the last section presents the next step that DFAS-IN needs to take to prepare for paying express shipments for the Air Force.

SYSTEMS EVALUATION

We evaluated three DFAS-IN systems that could accommodate express CBL payments. They are the Defense Transportation Payment System (DTRS), the Computerized Accounts Payable System (CAPS), and the Corps of Engineers Financial Management System (CEFMS). DTRS is designed to support the electronic payment of personal property GBLs. CAPS and CEFMS are accounting systems designed to support vendor payment. Our evaluation criteria included EDI capability, accounting capability, electronic funds transfer (EFT) capability, migration system designation, and system modifications to accommodate express shipment payments.

EDI Capability

Our evaluation of each system's EDI capability shows none of the systems offers an advantage. All have or will have similar capabilities by September 1997. DTRS is currently EDI-capable via a stand-alone EDI translator programmed to receive GBL shipment information from shippers through the Military Traffic Management Command and invoice information from carriers.

An EDI capability is being developed for CAPS and CEFMS. A full capability to receive purchase order information (to establish an obligation to pay), invoice information, and the receiving advice (to certify performance) is expected by September 1997. Neither system will receive the American National Standards Institute Accredited Standards Committee (ASC) X12 858 transaction set used by the transportation community to report shipment information. However, a CEFMS version that will be implemented by December 1996 will receive shipment information through an interface with the DTRS EDI translator.

Accounting and EFT Disbursement Capabilities

No system offers an advantage when comparing accounting and EFT disbursement capabilities. All will have similar capabilities by December 1996. DTRS lacks an accounting capability common to CAPS and CEFMS. However, DFAS-IN will interface DTRS with CEFMS by December 1996 to provide this capability.

None of the systems has an EFT disbursement capability. EFT is accomplished through the Standard Financial System Redesign (SRD1). DFAS-IN plans to interface CEFMS and CAPS with SRD1 to provide an EFT disbursement capability by December 1996. DTRS will gain an EFT capability via a planned interface with CEFMS.

Migration System Designation

In comparing the systems based on their selection as a DoD migration system, CAPS is at a disadvantage since it has not been selected. DTRS, however, has been selected as a migration system for processing GBL payments. Also, CEFMS (instead of CAPS) has been selected as the standard transportation accounting system. The selection of CEFMS as the standard accounting system is more significant for paying commercial express shipments than the selection of DTRS for processing GBL payments.

System Modifications

DTRS will require significant modifications to accommodate transportation contract payments. Its GBL payment functions are more complicated than those

needed to pay express CBLs. For example, DTRS supports invoice reconciliation and GSA post-payment auditing of GBL payments. The operating concept we recommend is simpler. The transportation office (TO) would perform invoice reconciliation because the I2P system produces an invoice at the shipping activity's location and GSA is not responsible for post-payment CBL auditing.¹

CAPS also requires significant system modifications. It is an on-line system and requires data entry of three separate documents: purchase order, invoice, and receiving report. However, our concept proposes that TOs transmit to DFAS-IN only a single EDI transaction that combines some shipment and invoice information, but it does not include receiving information. The CFR allows payment for CBLs before shipments are delivered.

In this assessment area, CEFMS offers significant advantages because it requires the fewest modifications to accommodate express CBL payments. While it operates on-line similar to CAPS, DFAS-IN is developing a batch-entry capability as a result of a DTRS interface expected in December 1996. CEFMS can receive a single payment authorization transaction in batch mode without requiring separate invoice and receiving report submissions.

Assessment

We recommend that DFAS-IN use CEFMS to support express CBL payments for several reasons. First, CEFMS can obtain an EDI capability through an interface with the DTRS EDI translator. Second, DFAS-IN is developing a batch version of CEFMS that provides accounting functionality for GBL payments and can provide similar functionality for express CBL payments. Third, CEFMS will have an EFT capability through an interface with the SRD1 system. Fourth, CEFMS has been designated transportation's standard accounting system. Finally, and most importantly, CEFMS requires fewer system modifications than DTRS and CAPS. These modifications are described in the following section.

AUTOMATION REQUIREMENTS

Preparing for express CBL payments requires some automation development, including minor CEFMS modifications and the development of an EDI implementation convention (IC).

CEFMS needs to be modified to provide transaction control by using a 17-character transportation control number (TCN) as the shipment identifier in lieu of a GBL number.

In addition, a DoD EDI IC needs to be developed using the ASC X12 858 shipment information transaction set. The IC needs to satisfy carrier and DFAS-IN

¹Title 41 CFR, Chapter 101, Section 41.304.

information requirements. Specifically, the following payment data elements need to be included in the IC: TCN, payee code, discount percent, discount days, pickup date, invoice date, accounting classification code, issuing GBL office code, authorized payment amount, voucher amount, and transaction purpose code. A new IC will also require an EDI translator at DFAS-IN to receive the data.

DFAS-IN CUSTOMER SERVICE FEES

DFAS-IN charges customers, like the Air Force, a fee for payments made by local or regional finance stations that reflects both payment and accounting services. The Air Force is concerned that payments to DFAS-IN might increase if the centralized concept is implemented. The concern arises because the Air Force pays DFAS-IN per transaction and every centralized transaction will be billed twice, once by the paying station and once by the accounting station.

DFAS Headquarters asserts that, under the centralized payment concept, costs incurred by local accounting stations should decrease to reflect the reduced workload as the payment function is transferred to a centralized location. However, it would take about a year for the rating cycle to reflect such a change; therefore, initially the Air Force may pay more for DFAS-IN's services. Once the rates are adjusted, the efficiencies of centralized payment should result in a lower total fee to the Air Force.

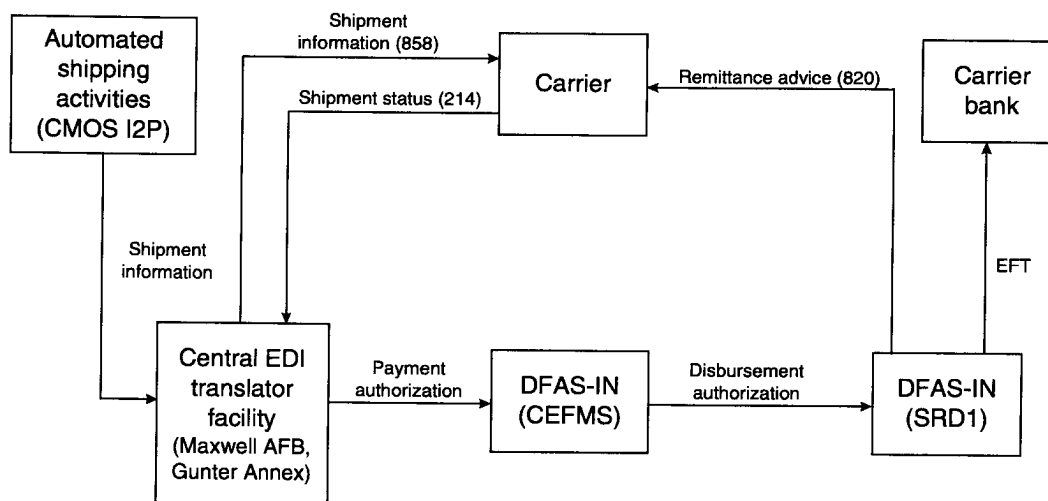
In addition, DFAS Headquarters is considering a separate fee-for-service rate for centralized transportation payments that are supported by electronic shipping information. That rate should be considerably lower than the fee for payment services supported by paper processing.

OPERATING CONCEPT

The concept of operations that we recommend is consistent with an EDI operating concept recently proposed for paying other non-GBL transportation bills at DFAS-IN.² It is based on the existing capability designed into the Air Force's CMOS I2P module. Figure 1 provides a diagram of the EDI operating concept.

² LMI Report DF601R8, *Paying Personal Property Transportation Contracts at the Defense Finance and Accounting Service – Indianapolis Center*, W. Michael Bridges, January 1997.

Figure 1. EDI Payment Operating Concept for Commercial Express Shipments



Note: AFB - Air Force Base

The I2P module of CMOS generates commercial express shipment orders. It produces paper freight bills for the TO and electronic shipping information for the commercial carrier. The freight bill identifies all shipments processed each day. The carriers maintain the rates in I2P; therefore, a freight bill also serves as the invoice with a total amount for all shipments.³

Shipping activities transmit electronic shipment information to a centralized EDI translator located at Maxwell AFB, Gunter Annex, AL. Carriers receive that shipment information, which is also provided to DFAS-IN, via the ASC X12 858 shipment information transaction set.

We recommend that the TO certify that shipment charges are appropriate and accurate prior to providing an electronic payment authorization to DFAS-IN. The carrier must provide accessorial services that occur at the destination to the origin TO to enter into I2P, since I2P access is unlikely at most destinations.

DFAS-IN receives the payment authorization transaction via the DTRS transportation EDI translator, which provides the data to CEFMS for payment and accounting processing. Through a CEFMS interface with SRD1, EFT disbursement is forwarded to the carrier's bank and remittance advice, via the ASC X12 820 transaction set, is forwarded to the carrier.

We also propose that a carrier send a shipment status (ASC X12 214 transaction set) to the Air Force. According to a recent GSA commercial express shipment

³ DoD's *Financial Management Regulation*, Volume 10, Section 0707, identifies when a non-invoice document can substitute as an invoice.

contract⁴, carriers must use their tracking capabilities to report delivery times. Payments to carriers are determined by their success in delivering on time. The ASC X12 214 transaction set provides service performance information.

Changes to authorized payment amounts previously submitted to DFAS-IN are processed as an updated ASC X12 858 transaction set. DFAS-IN processes payment reductions as claims against the carrier by attempting to offset a claimed amount against a future payment authorization. Details of how CEFMS should process updated transactions remain to be developed and may require CEFMS modification.

Audit Procedures

The Air Force must establish internal controls to oversee the certification process since a recent change to the United States Code (U.S.C.) places liability on the certifying official and relieves the disbursing official for most improper payments.⁵

The Air Force may want to consider establishing statistical sampling procedures for auditing express shipment bills. Certifying officials need to validate that express services are ordered by a TO, the carriers' charges are accurate, and the service is delivered on time. We believe that statistical sampling procedures are adequate for several reasons. First, the I2P module of CMOS interfaces with Air Force requisition systems, is controlled by a TCN, and prevents the generation of unauthorized shipments. Second, industry is dominated by reliable companies and carrier costing is historically accurate. Since carrier costing is automated within the I2P module, a periodic audit of the system should suffice. Third, destination accessorial services are rare. The GSA commercial express shipment contract only acknowledges one: change of address. Finally, the General Accounting Office approves the use of statistical sampling to audit vouchers.⁶

NEXT STEP

As a next step, DFAS-IN must develop a schedule to implement the payment operating concept described in this report, including modifying CEFMS, developing an ASC X12 858 CBL IC, and preparing the EDI translator. DFAS-IN must coordinate the schedule with the Air Force, which needs to prepare for these EDI exchanges.

DFAS-IN must prepare for more extensive Defense transportation use of CBLs that will replace GBL payments. CEFMS can be prepared quickly to pay express

⁴ GSA express shipping contract, No. GS-23F-9656D.

⁵ 31 U.S.C. Section 3528.

⁶ General Accounting Office, *Policy and Procedures Manual for Guidance of Federal Agencies*, Title 3, Auditing, February 12, 1990.

CBL shipments for the Air Force. The concept is also applicable to other Military Services and the Defense Logistics Agency as they automate commercial express shipments.

Glossary

AFB	Air Force Base
ASC	Accredited Standards Committee
CAPS	Computerized Accounts Payable System
CBL	commercial bill of lading
CEFMS	Corps of Engineers Financial Management System
CFR	Code of Federal Regulations
CMOS	Cargo Movement Operations System
DFAS-IN	Defense Finance and Accounting Service—Indianapolis Center
DoD	Department of Defense
DTRS	Defense Transportation Payment System
EDI	electronic data interchange
EFT	electronic funds transfer
FEDEX	Federal Express
GBL	government bill of lading
GSA	General Services Administration
IC	implementation convention
I2P	Industry Information Processor
SRD1	Standard Financial System Redesign
TCN	transportation control number
TO	transportation office
USC	United States Code

REPORT DOCUMENTATION PAGE

Form Approved
OPM No.0704-0188

Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources gathering, and maintaining the data needed, and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

1. AGENCY USE ONLY (Leave Blank)		2. REPORT DATE Jan 97	3. REPORT TYPE AND DATES COVERED Final
4. TITLE AND SUBTITLE Paying Commercial Express Shipments at the Defense Finance and Accounting Service – Indianapolis Center.			5. FUNDING NUMBERS C DASW01-95-C-0019 PE 0902198D
6. AUTHOR(S) W. Michael Bridges			
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Logistics Management Institute 2000 Corporate Ridge McLean, VA 22102-7805			8. PERFORMING ORGANIZATION REPORT NUMBER LMI- DF601R9
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Deputy Director for Finance Operations The Defense Finance and Accounting Service – Indianapolis Center 8899 E. 56th Street Indianapolis IN 46249-0501			10. SPONSORING/MONITORING AGENCY REPORT NUMBER
11. SUPPLEMENTARY NOTES			
12a. DISTRIBUTION/AVAILABILITY STATEMENT A: Approved for public release; distribution unlimited			12b. DISTRIBUTION CODE
13. ABSTRACT (Maximum 200 words) The Air Force and the small parcel industry have jointly developed an automated system to process commercial express shipments. The Air Force seeking to streamline the payment process, has requested that those bills be centrally paid by the Defense Finance and Accounting Service – Indianapolis Center (DFAS-IN). This report identifies the issues that DFAS-IN needs to resolve before it can pay commercial express shipments and present an operating concept for paying those bills using EDI and EFT.			
14. SUBJECT TERMS Payment, transportation, EDI, electronic data interchange, CBL, commercial bills of lading.			15. NUMBER OF PAGES 12
			16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT Unclassified	18. SECURITY CLASSIFICATION OF THIS PAGE Unclassified	19. SECURITY CLASSIFICATION OF ABSTRACT Unclassified	20. LIMITATION OF ABSTRACT UL



Logistics Management Institute
2000 Corporate Ridge
McLean, Virginia 22102-7805