

**FINAL
DEFENSE FUEL SUPPLY CENTER
ELECTRONIC DATA INTERCHANGE
CURRENT PRACTICES REPORT
FOR THE
DOD CALS IDE PROJECT
DECEMBER 7, 1999**

**Submitted by
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1.0 PREFACE

The objective of this research was to outline the current practices and procedures followed by the Defense Fuel Supply Center (DFSC) with focus on the Electronic Data Interchange (EDI) implementations currently in use and then provide an analysis of the EDI programs at the DFSC. However, after initially working with DFSC in constructing the preliminary deliverables, we were unable to adequately continue the program due to the lack of DFSC support and organization. The task was moved among several Contracting Officer's Technical Representatives (COTR) and finally removed from DFSC's agenda. After numerous attempts to redirect our efforts to a new COTR, the level of effort was reduced and redirected to other Electronic Commerce (EC)/EDI contract tasks. Hence, the final document deliverable has a limited scope of improvement and changes.

2.0 INTRODUCTION

EDI is the computer-to-computer transfer of machine processable, content-standardized business information. The international standards body, Electronic Data Interchange for Administration, Commerce, and Transport (EDIFACT), was established by the United Nations (UN) in 1985. American Standards Committee (ASC) X12 and EDIFACT have established over 200 transaction sets intended to satisfy a broad spectrum of data requirements. Concurrent with these activities, several larger U.S. firms are expressing interest in accelerating migration to UN/EDIFACT standards for international data interchange. The U.S. has committed to a process alignment between the domestic American National Standards Institute (ANSI) X12 Electronic Data Interchange standard, and the international UN/EDIFACT standard. DFSC acts as the Defense Logistics Agency (DLA) designated representative in conducting Department of Defense (DoD) management of fuel inventory and war reserves. DFSC's mission is to provide the DoD and our customers comprehensive energy support in the most effective and economical manner possible. DFSC is an important participant in the global marketplace of petroleum products. Within this marketplace, suppliers, airline industries, fixed-base operators, and other participants including DFSC, jointly developed methods for applying EDI to the sale and delivery of petroleum products. International aspects of defense, the need for standardization and harmony, and the increasing reality of a global economy are factors that signal the need for a more common basis of data interchange. UN/EDIFACT holds the most potential for achieving this end with respect to the exchanges of routine business information. In this scenario, DFSC must ensure that its business functions currently satisfied by the ASC X12 standard can first be supported by the UN/EDIFACT standards. DFSC methods address use of U.S. national EDI X12 standards, and are beginning to look into a limited use of UN/EDIFACT standards for international data interchange. An example of this joint effort is the Aviation Network Project or AVNET, which is attempting to maintain comparability of business information in a small set of X12 and UN/EDIFACT standards, with the goal of making use of EDI in one or both formats nearly transparent.

The objective of this report is to outline the current practices and procedures followed by DFSC with focus on the EDI implementations in use today. An overview of the main processes such as invoicing, delivery ticket processing, price notification, and change processes is discussed. The Aviation Network (AVNET) implementation guidelines discuss the variety of business requirements to be satisfied by an EDI fuels acquisition model. These requirements will later be used in the analysis of the EDI program at the DFSC. The processes in place for supporting the business requirements at the DFSC are then outlined and briefly discussed.

3.0 DFSC EDI PROGRAM

The following section gives an overview of the DFSC EDI program and details current practices being followed.

3.1 Overview

The DFSC procedures and practices in the EDI domain involve the complex combinations of players and business processes. Many of the business functions and processes incorporated into the DFSC EDI infrastructure are driven by the direction specified in the commercial airline industry fuels business model. The DFSC EDI program specifies the use of the AVNET implementation conventions for the major types of transactions conducted. AVNET is a joint aviation/oil industry effort to develop and promote the use of EDI standards to bring new efficiencies to the sale and delivery of aviation fuel and related products and services. The AVNET group identified the fuel invoice, delivery ticket, and price notification as the most important documents for conversion to electronic format.

The DFSC conducts all business with a variety of trading partners using ASC X12 transaction sets. A high percentage of the industry trading partners use different versions of ASC X12 ranging from Version 2002 to 3030. However, our initial assessment is that the most common version used is 3010. The DFSC does not mandate the requirement for a standard version of ASC X12 but instead tailors the transaction set for the vendor with the trading partner agreement and guidelines so that the relevant information can be transacted. The airline industry drives the guidelines for implementation of EDI at the DFSC, since airlines are the biggest consumer of fuel and have well set and established guidelines for EDI implementation. The DFSC is beginning to look into a limited use of UN/EDIFACT standards for international data interchange. The Aviation Network Project or AVNET, is attempting to maintain comparability of business information in a small set of X12 and UN/EDIFACT standards, with the goal of making use of EDI in one or both formats nearly transparent. The DFSC transacts a variety of business information with EDI, primarily with the ASC X12 transaction sets. The trading partner agreements and the addenda to the agreement are given in Appendix A.

The trading partner agreement outlines the details and implementation conventions to be followed in the use of these transaction sets. Trading partners doing business with the DFSC must adhere to the published ANSI X12 standard for transaction sets and shall comply with DFSC conventions for ANSI X12 transaction sets as identified by the trading partner agreements. Trading partners are also required to support the current and previous versions of the ANSI X12/ASC standards within certain time limits. Trading partners must give at least 90 days notice of intent to upgrade to a new published ANSI X12/ASC standard. Trading partners must also upgrade to that new standard within 90 days of receiving the preceding notice.

EDI transactions with trading partners undergo a period of testing, in which transaction sets will be sent electronically and corresponding paper documents will be sent by mail, for a mutually agreed upon time period. At the completion of the test period, if the parties determine the test to be successful, the mailing of paper documents will cease. The DFSC specified that in the event

of any dispute between the trading partners during this testing period, the paper document shall prevail.

Receipt of a transaction set shall be deemed to occur when a trading partner picks up the transaction set from its computer, or from the trading partner's electronic mailbox on its third-party network. Trading partners must agree to collect the contents of their mailboxes a minimum of twice a day on business days of the U.S. Government.

Should there be any errors in a transmission received by a trading partner, the originating trading partner will only be responsible for those errors occurring on its system or on the system of its third-party network. If a trading partner should receive a transmission with errors in ASC X12 syntax, lost data, altered data, or data in unintelligible or garbled form, the trading partner must transmit a Transaction Set 997 Functional Acknowledgment, stating rejection due to non-conformance. In the absence of such notice, the originating trading partner's record content shall control.

The originating trading partner will not be responsible for any damages incurred by a receiving trading partner as a result of missing or delayed transmissions when the problem is not with the originating trading partner or its third-party network.

Any transaction set transmitted with a proper authenticating code is to be considered a valid and authentic document backed by the same guarantees of legitimacy as found in a paper transaction.

Transaction sets are authorized to be conducted as specified in the addenda to the trading partner agreements given in Appendix A. These addenda may be supplemented by particular specifications and requirements, and additional addenda as mutually agreed upon by the trading partners.

Each trading partner is responsible for establishing and maintaining its EDI operation. The DFSC does not start the process of establishing an EDI relationship with a vendor until the vendor has demonstrated EDI proficiency. The trading partners must agree to maintain trained operators and support personnel possessing the ability to perform independently EDI day-to-day operations. Training is the trading partners' responsibility, and this requirement extends to having qualified operators at all times. The vendor shall maintain self-evaluation of its EDI performance and take corrective action to maintain performance at mutually acceptable levels.

The trading partners must agree to utilize adequate security practices to ensure that the transmission of each transaction set is authorized and to protect records and data from improper access. Trading partners must protect and maintain confidentiality of passwords used for EDI access. Each trading partner must further agree that its software shall provide adequate protection for password security. The trading partners shall maintain the same standards of confidentiality, security, care, and diligence regarding EDI transactions as with paper contracting documents.

3.2 Primary Business Processes

Some of the main trading partners of the DFSC are oil companies, namely: Shell, BP, Exxon, Texaco, Mobil, and Amoco. Use of EDI at the DFSC is implemented with relatively few transactions but each of them is for high volumes of fuel and involves high currency transfers. An indication of the volume level of DFSC conducted transactions is shown below.

- One solicitation every 3 years.
- Twelve transactions in bulk fuels per year.
- Fifty transactions in ground fuels per year.

Approximately \$4.2 billion per year is transacted through the DFSC, which constitutes nearly 50 percent of the budget for the DLA. In spite of the fact that the transaction volume is low, the effects of each transaction are significantly high.

Aviation fueling is a complex process. Fuel is the second highest cost item for the airline industry and a necessity for daily operations. AVNET concerns the aviation fuel and lubricant deliveries at the airports, the related price notifications, and the billing process related to the deliveries. In AVNET the primary business processes include

- Price Notification,
- Delivery Ticket, and
- Invoice.

3.2.1 Invoice Process

An invoice can follow a variety of paths in aviation/ground transport fueling. The actual path depends on the ownership of the fuel. A fuel invoice is sent from the petroleum company to the servicing company or the consumer. The intention nonetheless is to have the invoice be a financial summary and a reference to the actual deliveries. The invoice consists of a header with general information, followed by one or more lines of detail referring to actual deliveries and a trailer with summary information. The header uniquely identifies the invoice, who issued the invoice, and to whom it is being sent. The line items refer to a product or service and contain pricing information. The line items may also contain reference information to help the invoice recipient match the item against a physical event. The trailer of the invoice contains control totals and summarized information for allowances and charges containing the whole invoice.

There are generally three different forms of invoices.

1. **Volumes/Events Based Invoice:** An invoice where the charge being invoiced is directly related to a specific volume/event. An example would be the charges for storage or in-plane deliveries.
2. **Period Based Invoice:** An invoice where a charge is not related directly to a specific volume/event but related to many volumes/events over a period. An example would be the charges for in-plane deliveries over a month.

3. **Non-Volume Based Invoice:** An invoice where the charge being invoiced is not related to a specific volume/event but may be related to periods. An example would be the charges for fixed facilities or debt service charges.

Some of the business issues concerning invoices include the following:

- Summarized Invoicing,
- Corrections/Adjustments,
- Multiple Currency Invoices, and
- Prepaid Invoices.

3.2.2 Price Notification Process

Trading partners, in the course of business, negotiate agreements for the supply of products or services. The price of the product or service may change during the contract period as specified in the agreement. In addition, the price of associated fees, duties, and taxes may change. Notification of these changes are needed by the trading partners' accounting, financial, and procurement systems which need to know the price information for the proper invoice verification and expensing of charges. The price notification message function is to standardize the communication of routine price information between trading partners. The timely delivery of pricing information is important because some agreement terms require price notification before sales and invoices can be created. The price notification contains data elements that deal with the following:

- Parties involved with the notification.
- Price value.
- Agreement or line item that the price represents.
- Validity of the price and its location.

The message functionality includes the ability of trading partners to send notification for all types of product and service prices and related fees, taxes, charges, and allowances. Prices may be represented as rates, percentages, or values, with specific qualifiers included in the message structure. The following business issues are typically presented in the price notification.

- Negotiation/Bidding.
- Taxes.
- Types of Prices.
- Note Segment.
- Tiered Pricing Structure.
- Formula Prices.
- Self-Billing.
- Exchange Rates.
- Distinction between Price Codes.
- Business Element Code Lists.

3.2.3 Delivery Tickets Process

Delivery tickets are generated as the result of movement of product and/or title transfer. A delivery ticket can also result from a service triggered by the movement of a product. The delivery ticket message contains a header, which contains the information identifying the parties involved, addresses, locations, and supporting documents relevant to the entire delivery. The details section of the message contains the specifics of the delivered items. The purpose of the ticket is to provide evidence of the transfer, to allow automatic verification of the invoice, and to act as a source document for inventory control. The scope of the AVNET delivery ticket message is, however, limited to the receipt of deliveries. The following business issues are presented for the delivery ticket.

- Multiple Deliveries,
- Corrections/Adjustments,
- Quantities,
- Duties/Taxes, and
- Certifications.

3.3 Business Requirements

The range of business functionality addressed by the DFSC is quite extensive, as is evident from the wide range of transaction sets that are in use or are slated for future use. These transaction sets encompass wide business functionality and requirements. The AVNET implementation guide suggests 136 different business requirements that need to be transacted in an aviation fuels environment. These can be split into the following 13 categories:

1. Identification and References to Related Documents.
2. Parties Involved.
3. Details of Product/Service.
4. Dates and Times.
5. Locations.
6. Currencies and Exchange Rates.
7. Monetary Amounts.
8. Prices.
9. Pre-Payment Details.
10. Allowance/Charge and Discount Information.
11. Miscellaneous Controls and References.
12. Delivery Information.
13. Tax Information.

3.4 DFSC Current EDI Support of Business Requirements

Of the five transaction sets in current use, the invoice is the most widely used. Vendors are required to submit invoices to the DFSC using ASC X12s 810 Transaction Set, Version 3010 followed under the AVNET industry implementation convention. The DFSC electronically submits an acknowledgment using Transaction Set 997 to the vendor within one day of receipt of the 810 Transaction Set.

Upon receipt of an incorrectly submitted invoice, an Invoice Return Notification is sent via the ASC X12s 824 Transaction Set, Version 3010 under a specific implementation convention defined by the DFSC. The DFSC transmits the Invoice Return Notification within seven days of receipt of an improper invoice (Transaction Set 810). The contractor is required to transmit a functional acknowledgment (Transaction Set 997) within 24 hours of receipt of the Invoice Return Notification.

Price changes are electronically transmitted to and by the DFSC using the ASC X12s 832 Transaction Set, Version 3010 under the AVNET implementation convention. The receiving party is required to electronically transmit an acknowledgment to the sending party with the functional acknowledgment (Transaction Set 997) within one day of receipt of Transaction Set 832.

There are 18 different transaction sets in use by the DFSC. Five of the transaction sets are utilized more extensively than the rest. These are shown in Table 3.4-1.

Table 3.4-1 Transaction Sets in Use at DFSC

X12 Transaction Set	Transaction Type	Frequency of Use
810	Invoice	High
824	Application Advice	High
846	Inventory Advice	High
861	Receiving Advice/Acceptance Certificate	High
997	Functional Acknowledgment	High
820	Payment Order/remittance Advice	Low
830	Planning Schedule	Low
840	Request for Quotation	Low
842	Non-Conformance Report	Low
843	Response to Request for Quotation	Low
848	Material Safety Data Sheet	Low
850	Purchase Order	Low
855	Purchase Order Acknowledgment	Low
856	Ship Notice Manifest	Low
860	Purchase Order Change Request	Low
863	Report of Test Results	Low
869	Order Status Inquiry	Low
870	Order Status Report	Low

4.0 SUMMARY

The DFSC has a low number of electronic commerce transactions given the large gross value of the transactions. If the DFSC views its suppliers and trading partners as customers rather than just trading partners, then the DFSC should embrace the use of UN/EDIFACT as well as ANSI X12 for its international base. Given earlier beliefs by DFSC and the standards environment, DFSC was reasonable in requiring its trading partners to implement a single implementation convention for a single standard like ANSI X12. However, with today's technological improvements and commercial translation software, DFSC should embrace an open policy in accepting both ANSI X12 and UN/EDIFACT. The requirement for implementing AVNET is understandable for current practices, but they should strive to completely eliminate trading partner agreements and allow users to map to user defined files irrespective of a certain standard. As ANSI X12 moves toward convergence with UN/EDIFACT, it is clear that working with UN/EDIFACT now will make this almost certain transition much easier while providing greater support to its clientele.

APPENDIX A: SAMPLE DFSC TRADING PARTNER AGREEMENT

TRADING PARTNER AGREEMENT

THIS AGREEMENT, effective on the date signed by the Government Contracting Officer, is between the Defense Fuel Supply Center (DFSC) and _____ (the Vendor), whose principal place of business is _____. (The DFSC and Vendor are sometimes individually referred to in this Agreement as "Trading Partner" or collectively as "Trading Partners.")

I. INTRODUCTION

- a. Electronic Data Interchange (EDI) is the electronic exchange of data contained in normal business transactions, in a standard format.
- b. This Agreement prescribes the general procedures and policies to be followed when EDI is used for transmitting and receiving data in mutually agreed upon formats in lieu of creating paper documents normally associated with the conduct of business between DFSC and the Vendor.
- c. The Vendor voluntarily chooses to participate in EDI with DFSC.

The Vendor agrees, by executing this Agreement, to be bound by the terms and conditions of this Agreement in addition to those of any underlying contract separately entered into between the Vendor and DFSC.

NOW THEREFORE, in consideration of the mutual covenants contained herein, the parties hereto agree as follows:

II. SCOPE

Information exchanged through EDI will be the same as that currently required on paper documents for those transaction sets agreed to by both parties through any Addenda to this agreement.

III. DURATION

- a. This Agreement must be signed and dated by both Trading Partners before this Agreement is valid and EDI operations begin.
- b. The Vendor will be the first party to sign and date this Agreement, and any Addenda thereto. The last signature and date will be that of the DFSC contracting officer upon acceptance of the Agreement.
- c. The original signed Agreement will remain with the DFSC contracting officer and a copy will be furnished to the Vendor.
- d. This Agreement will commence on the date of the last signature and shall remain in effect unless terminated by either party hereto pursuant to Section XIII of this Agreement.

IV. STANDARDS

- a. The intent of this Agreement is to create a legally binding obligation upon the Trading Partners using EDI and to ensure that (1) use of any electronic equivalent of documents referenced or exchanged under this Agreement shall be deemed an acceptable practice in the ordinary course of business and (2) such electronic documents shall be admissible as evidence on the same basis as customary paper documents. The parties herein intend to be legally bound by the electronic documents.
- b. The documents recognized by the American National Standards Institute (ANSI) X12 standard and identified in the Addenda of this Agreement (Transaction Sets) will be transmitted over a third-party network identified in the Appendix of this Agreement between the Trading Partners.
- c. Trading Partners shall adhere to the published ANSI X12 standard for transaction sets and shall comply with DFSC conventions for ANSI X12 transaction sets as identified in the Addenda.
- d. Trading Partners will support the current and previous versions of the ANSI X12/American Standards Committee (ASC) standards within the following time frames. Trading Partners will give at least 90 days notice of intent to upgrade to a new published ANSI X12/ASC standard. Trading Partners must upgrade to that new standard within 90 days of receiving the preceding notice.
- e. Each Trading Partner shall be responsible for providing its own computer hardware and computer software necessary to receive and transmit transaction sets.
- f. EDI transactions with Trading Partners will undergo a period of testing, in which transaction sets will be sent electronically and corresponding paper documents will be sent by mail, for a mutually agreed upon time period. At the completion of the test period, if the parties determine the test to be successful, the mailing of paper documents will cease. In the event of any dispute between the Trading Partners during this testing period, the paper document shall control.
- g. Receipt of a transaction set shall be deemed to occur when a Trading Partner picks up the Transaction set from its computer, or from the Trading Partner's electronic mailbox on its third-party network. The Trading Partners agree to collect the contents of their mailboxes a minimum of twice a day on business days of the U.S. Government.
- h. Should there be any errors in a transmission received by a Trading Partner, the originating Trading Partner will only be responsible for those errors occurring on its system or on the system of its third-party network. If a Trading Partner should receive a transmission with errors in ASC X12 syntax, or lost or altered data, or data in unintelligible or garbled form the Trading partner shall transmit a Transaction Set 997, Functional Acknowledgment, stating rejection due to non-conformance. In the absence of such notice, the originating Trading Partner's record content shall control. Pick-up of the retransmission constitutes receipt of the Transaction set, unless errors are noted in the retransmission.

- i. The originating Trading Partner will not be responsible for any damages incurred by a receiving Trading Partner as a result of missing or delayed transmissions when the problem is not with the originating Trading Partner or its third-party network.
- j. Any Transaction set transmitted with a proper authenticating code is to be considered a valid and authentic document backed by the same guarantees of legitimacy as found in a paper transaction. Neither Trading Partner will challenge the authenticity or admissibility of the Transaction set(s) in evidence during any trial or administrative proceeding except in circumstances where an analogous paper document could be challenged.

V. TRANSACTIONS AUTHORIZED

Transaction sets are authorized to be conducted as specified in the Addenda that are made a part of this Agreement. These Addenda may be supplemented by particular specifications and requirements, and additional Addenda as mutually agreed upon by the Trading Partners.

VI. AGREEMENT REVIEW

This Agreement will be reviewed as needed by the Trading Partners to make changes, additions, or deletions as may be desirable.

VII. DISPUTES

All disputes, differences, disagreements, and/or claims between the Trading Partners arising under or relating to this Agreement that are not resolved by negotiation shall be subject to the Disputes Clause of the underlying contract.

VIII. FORCE MAJEURE

Neither Trading Partner will be liable to the other for failure to properly conduct EDI resulting from war; accident; quarantine restriction; riot; fire; explosion; flood; unusually severe weather; epidemic; power outage; labor dispute; embargo; act of God or of the public enemy; act of Government in either its sovereign or contractual capacity; malfunction or inappropriate design of computer hardware or software; error of, or nonperformance by, the other Trading Partner's third-party network; or any other cause beyond such Trading Partner's control.

IX. INTERRUPTION OF SERVICE

In the event there is an interruption of EDI, paper documents will be used until mutually agreed that EDI procedures can be resumed.

X. DAMAGES

Neither Trading Partner shall be liable to the other for any incidental, exemplary, or consequential damages resulting from any delay, omission, or error in the electronic transmission or receipt of Transaction sets under this Agreement.

XI. START-UP AND CONTINUING EDI OPERATIONS

- a. Each Trading Partner is responsible for establishing and maintaining its EDI operation.
- b. DFSC will not start the process of establishing an EDI relationship with the Vendor until the Vendor has demonstrated EDI proficiency.
- c. The Trading Partners agree to maintain trained operators and support personnel possessing the ability to perform independently EDI day-to-day operations. Training is the Trading Partners' responsibility, and this requirement extends to having qualified operators to cover periods of vacations and other absences.
- d. The Vendor shall maintain self-evaluation of its EDI performance and take corrective action to maintain performance at mutually acceptable levels.

XII. SECURITY

The Trading Partners agree to utilize adequate security practices (1) to ensure that the transmission of each Transaction set is authorized and (2) to protect records and data from improper access. Trading Partners shall protect and maintain confidentiality of passwords used for EDI access. Each Trading Partner further agrees that its software shall provide adequate protection for password security. The Trading Partners shall maintain the same standards of confidentiality, security, care, and diligence regarding EDI transactions as with paper contracting documents. The Vendor agrees to comply with applicable laws and regulations governing computer security.

XIII. TERMINATION

- a. This Agreement may be terminated by either Trading Partner by the giving of at least 30 days written notice designating the date of termination.
- b. This agreement may be terminated by either Trading Partner if the other Trading Partner's EDI performance level is unacceptable and that Trading Partner does not correct such performance within 15 calendar days after written notification. Once terminated for unacceptable EDI performance, the Agreement will not be renewed until the Trading Partner having unacceptable EDI performance provides sufficient evidence acceptable to the other Trading Partner that performance deficiencies have been corrected
- c. Termination of this Agreement shall have no effect on transactions occurring prior to the effective date of termination.
- d. Emergency termination of computer connections may be made by the Trading Partners to protect data from unauthorized access or other incidental damage. Such action does not constitute termination of this Agreement. Prompt notice of the emergency termination shall be provided to the other Trading Partner.
- e. Any such action outlined above does not excuse the Vendor from its obligation to perform under any U.S. Government contract, purchase order, delivery order, or other obligation. All such terms and conditions remain in full force and effect. In addition, any such action

outlined above will not entitle the Vendor to a price increase under any underlying U.S. Government contract, purchase order, delivery order, or other obligation.

XIV. THIRD-PARTY NETWORK

- a. Trading Partners must use a third-party network. The third-party network selected to transmit, translate, or carry data between the Trading Partners shall be identified in the USE OF ELECTRONIC DATA INTERCHANGE clause.
- b. Each Trading Partner shall be responsible for the costs of its third-party network.
- c. Trading Partners shall agree on the capability of the third-party network(s) to provide such system data security as data integrity, error-free protocol, identification code and password protection, encrypting, etc., and shall make the requirements/specifications for such capability a binding part of this Agreement by specifying them in the Appendix. In the event that the requirements/specifications for such capability conflicts with any term or condition of this Agreement, the terms and conditions of this Agreement shall control.
- d. Either Trading Partner may replace its third-party network upon at least 30 days written notice to the other Trading Partner. Any requested changes to the system configuration must be compatible with the other Trading Partner's protocols. Neither Trading Partner will incur any liability for costs associated with the action of the other Trading Partner in changing networks; however, the right to terminate this Agreement still applies.

XV. SIGNATURE

- a. Each Trading Partner will use a code in each electronic transmission as its discrete authenticating code in lieu of a written signature and as the equivalent of a written signature.
- b. Each Trading Partner agrees not to disclose its own discrete authenticating code or that of the other Trading Partner to any unauthorized person or entity.
- c. Each Trading Partner agrees that its authenticating code shall be sufficient to assure that such Trading Partner originated the electronic transmission.
- d. Receipt of Vendor's authenticating code in the proper data element and segment shall signify its intent to be bound by the Transaction set as well as the terms and conditions of any underlying contract, purchase order, delivery order, or other obligation. Each Trading Partner may change its authenticating code within the enveloping structure from time to time upon 10 days prior written notice to the other party.

XVI. WHOLE AGREEMENT

This Agreement and all Addenda constitute the entire Agreement between the Trading Partners regarding EDI. Additional provisions governing the Trading Partners' agreement may be found in the underlying contract. No change in the terms and conditions of this Agreement shall be effective unless approved in writing and signed by both Trading Partners. As the Trading Partners develop additional capabilities respecting EDI, additional Addenda may be added to this Agreement. Each Addendum shall be signed and dated by both Trading Partners. The date of

the last signature shall be the effective date, and each Addendum shall be appended to this Agreement.

XVII. MISCELLANEOUS

- a. This Agreement shall be governed and interpreted in accordance with the laws, statutes, and regulations of the U.S. Government.
- b. No waiver by a Trading Partner of any breach or default hereunder shall constitute a waiver of any subsequent breach or default.
- c. All notices under this Agreement shall be in writing and shall be given by mailing them to the address identified below:

VENDOR:

DFSC:

<p>_____</p> <p>_____</p> <p>_____</p> <p>Attn: _____</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>Attn: _____</p>
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IN WITNESS WHEREOF, the Trading Partners have executed this Agreement.

VENDOR:

DFSC:

<p>By _____</p> <p>Name _____</p> <p>Title _____</p> <p>Date _____</p>	<p>By _____</p> <p>Name _____</p> <p>Title _____</p> <p>Date _____</p>
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**TRADING PARTNER AGREEMENT ADDENDUM FOR INVOICE
(ASC X12 810 TRANSACTION SET)**

Electronic Data Interchange Trading Partner Agreement Addendum

Invoices Transaction Set 810, Version 5.95

This Addendum to the Trading Partner Agreement provides additional detail on the use of Electronic Data Interchange (EDI) between Trading Partners.

The Vendor shall electronically submit invoices to DFSC using the following American National Standards Institute (ANSI) X12 Transaction:

Transaction Set:	Version Release:	Industry Convention:
810	003010	AVNET

The transaction set will contain all mandatory data elements as defined within the AVNET Conventions, as well as any other fields that are required by the underlying contract or are otherwise agreed upon in writing between DFSC and the Vendor. Maximum field length for invoice number is five positions.

An Invoice (810) must be received by DFSC no later than 5:30 PM to be considered received that day. Invoices received after 5:30 PM shall be considered received the next U.S. Government business day. To be considered received an EDI Transaction must be communicated to DFSCA2 (DFSC's EDI mid-tier computer).

DFSC shall electronically transmit an acknowledgment to the Vendor as specified herein at Addendum entitled "Functional Acknowledgment (Transaction Set 997)" within one day of receipt of Transaction Set 810 and associated transactions.

Trading Partners shall maintain hours of operation for network availability and be capable of receiving or sending EDI transmissions, Monday through Friday except federal holidays.

This agreement may be terminated by DFSC/Defense Finance and Accounting Service, Columbus (DFAS-CO) if the vendor's EDI performance level is unacceptable and the vendor does not correct performance within 15 calendar days after written notification. Once terminated, the agreement will not be renewed until the vendor has provided evidence acceptable to DFSC/DFAS-CO that performance deficiencies have been corrected.

All notices under this agreement that impact the Accounting and Payments function shall be furnished in writing to the address furnished below:

Defense Finance and Accounting Service
Columbus Center
Fuels Accounting and Payments Division
Attn: DFAS-CO-SF
P.O. Box 182317
Columbus, OH 43218

VENDOR:

DFSC:

By _____
Name _____
Title _____
Date _____
Company _____

By _____
Name _____
Title _____
Date _____

DFAS-CO

By _____
Name _____
Title _____
Date _____

Electronic Data Interchange Trading Partner Agreement Addendum

**TRADING PARTNER AGREEMENT ADDENDUM FOR INVOICE RETURN
(ASC X12 824 TRANSACTION SET)**

Electronic Data Interchange Trading Partner Agreement Addendum

Invoice Return Transaction Set 824, Version 5.95

This Addendum to the Trading Partner Agreement provides additional detail on the use of Electronic Data Interchange (EDI) between Trading Partners.

DFSC shall electronically transmit Invoice Return Notifications using the following American National Standards Institute X12 transaction:

Transaction Set:	Version Release:	Industry Convention:
824	003010	DFSC

DFSC shall transmit an Invoice Return Notification within seven (7) days of receipt of an improper invoice (Transaction Set 810). The contractor shall transmit a Functional Acknowledgment (Transaction Set 997) within 24 hours of receipt of the Invoice Return Notification.

If a control number is present on this transaction set, the vendor must include this number on any re-submitted invoice.

Trading Partners shall maintain hours of operation for network availability and be capable of receiving or sending EDI transmissions, Monday through Friday except federal holidays.

VENDOR:		DFSC:	
By	_____	By	_____
Name	_____	Name	_____
Title	_____	Title	_____
Date	_____	Date	_____
Company	_____		

DFAS-CO

By _____
Name _____
Title _____
Date _____

Electronic Data Interchange Trading Partner Agreement Addendum

**TRADING PARTNER AGREEMENT ADDENDUM FOR PRICE CHANGES
(ASC X12 832 TRANSACTION SET)**

Electronic Data Interchange Trading Partner Agreement Addendum

Price Changes Transaction Set 832

This Addendum to the Trading Partner Agreement provides additional detail on the use of Electronic Data Interchange (EDI) between Trading Partners.

DFSC shall electronically transmit price change modifications and the Vendor shall electronically transmit price change notifications using the following American National Standards Institute (ANSI) X12 transaction:

Transaction Set:	Version Release:	Industry Convention:
832	003010	AVNET

The receiving party shall electronically transmit an acknowledgment to the sending party, as specified herein at Addendum entitled "Functional Acknowledgment (Transaction Set 997)," within one day of receipt of Transaction Set 832.

Trading Partners shall maintain hours of operation for network availability and be capable of receiving or sending EDI transmissions, Monday through Friday except federal holidays.

VENDOR:		DFSC:	
By	_____	By	_____
Name	_____	Name	_____
Title	_____	Title	_____
Date	_____	Date	_____
Company	_____		

Electronic Data Interchange Trading Partner Agreement Addendum

**TRADING PARTNER AGREEMENT ADDENDUM
FOR FUNCTIONAL ACKNOWLEDGEMENT
(ASC X12 997 TRANSACTION SET)**

Electronic Data Interchange Trading Partner Agreement Addendum

Functional Acknowledgments Transaction Set 997

This Addendum to the Trading Partner Agreement provides additional detail on the use of Electronic Data Interchange (EDI) between Trading Partners.

Transaction Set 997 is to be utilized by both Trading Partners to acknowledge that the transaction set transmitted by the originating partner was received and that it either was accepted as being in conformance or was rejected as being in non-conformance with the American National Standards Institute (ANSI) X12 format.

Transaction Set:	Version Release:	Industry Convention:
997	003010	N/A

A 997 Functional Acknowledgment shall be electronically transmitted by the receiving party to the sending party within one day of receipt of any other (ANSI) X12 format transaction set.

Trading Partners shall maintain hours of operation for network availability and be capable of receiving or sending EDI transmissions, Monday through Friday except federal holidays.

VENDOR:		DFSC:	
By	_____	By	_____
Name	_____	Name	_____
Title	_____	Title	_____
Date	_____	Date	_____
Company	_____		

Electronic Data Interchange Trading Partner Agreement Addendum

APPENDIX B: BIBLIOGRAPHY

BIBLIOGRAPHY

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APPENDIX C: ACRONYMS AND ABBREVIATIONS

ACRONYMS AND ABBREVIATIONS

ANSI	American National Standards Institute
ASC	American Standards Committee
AVNET	Aviation Network
CALS	Continuous Acquisition and Life-cycle Support
CDRL	Contract Data Requirements List
COTR	Contracting Officer's Technical Representative
DFSC-CO	Defense Finance and Accounting Service, Columbus
DFSC	Defense Fuel Supply Center
DFSCA2	Defense Fuel Supply Center's Electronic Data Interchange mid-tier computer
DLA	Defense Logistics Agency
DoD	Department of Defense
EC	Electronic Commerce
EDI	Electronic Data Interchange
EDIFACT	Electronic Data Interchange for Administration, Commerce, and Transport
UN	United Nations