

**Program Executive Office (PEO)
Standard Army Management
Information Systems (STAMIS)**



**INTERFACE AGREEMENT
Transportation Coordinators' Automated Information
for Movement System II (TC-AIMS II)
and
Integrated Computerized Deployment System (ICODES)**

Prepared by:
The ICODES Project Management Office
and
The TC-AIMS II Joint Project Management Office (JPMO)

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TABLE OF CONTENTS

1. GENERAL	3
1.1 PURPOSE.....	3
1.2 SCOPE.....	3
1.3 FUNCTIONAL REQUIREMENT	3
1.4 INTERFACE OVERVIEW	3
1.5 RESPONSIBILITIES	4
1.6 PROCEDURAL AND SYSTEM CHANGES	4
1.7 LIFE CYCLE MAINTENANCE	5
2. TC-AIMS II ATTRIBUTES.....	5
2.1 SYSTEM ATTRIBUTES	5
2.2 HARDWARE	6
2.3 SOFTWARE	6
2.4 INTERFACE ATTRIBUTES.....	6
2.5 SERVICE LEVELS	7
2.6 POINTS OF CONTACT	7
2.7 SECURITY	7
2.8 COMMUNICATION VERIFICATION.....	8
2.9 SYSTEM SUPPORT	8
2.10 DATA REQUIREMENTS.....	8
3. ICODES ATTRIBUTES.....	8
3.1 SYSTEM DESCRIPTION	8
3.2 HARDWARE	9
3.3 SOFTWARE	9
3.4 INTERFACE ATTRIBUTES.....	9
3.5 SERVICE LEVELS	9
3.6 POINTS OF CONTACT	10
3.7 SECURITY	10
3.8 COMMUNICATION VERIFICATION	10
3.9 SYSTEMS SUPPORT	10
3.10 DATA REQUIREMENTS.....	11
4. INTERFACE FILE SPECIFICATIONS	11
4.1 NAMING CONVENTIONS.....	11
4.2 FILE STRUCTURE	11
4.3 HEADER SEGMENT	12
4.4 DATA SEGMENT	13
5. REFERENCES	17
6. ACRONYMS	18

1. General

1.1 Purpose

The purpose of this Interface Agreement (IA) is to define the functional and physical interface established between the Integrated Computerized Deployment System (ICODES) and the Transportation Coordinators' Automated Information for Movement System II (TC-AIMS II).

1.2 Scope

This interface agreement applies to all functional proponents, assigned responsible agencies, software developers, operators, users, and all others involved with the transfer of data between ICODES and TC-AIMS II. This applies for personnel working at all TC-AIMS II and ICODES locations. This IA encompasses requirements pertaining to data, physical and logical interfaces, communications, service levels, and security.

1.3 Functional Requirement

This interface agreement provides for a two-way data exchange of ship load planning data in support of the TC-AIMS II movement planning functions and ICODES ship loading functions.

The interface will allow an indirect, electronic-transfer of unit deployment data between ICODES and TC-AIMSII, in order to initialize the Cargo semantic network of ICODES for a new Load Plan, and to provide TC-AIMSII access to positional data generated by ICODES. The interface will also allow TC-AIMSII and ICODES to periodically synchronize the data that can be independently manipulated in the two systems. The need for synchronization will occur anytime a shared data entity is inserted, updated, or deleted in either ICODES or TC-AIMSII. The data transferred will logically consist of all data elements common between the two systems. The transfer is considered indirect because it is accomplished via an-intermediary object (file) that encapsulates the data to be exchanged in a system independent manner.

1.4 Interface Overview

Data records to be exchanged will be prepared in a tab delimited, ASCII formatted text interface file. The interface file may then be physically transferred to the interfacing system via 3.5 HD diskette, or electronically transferred via the Defense Information Systems Network (DISN). Connectivity will be determined by locally available capability: LAN, WAN, modem, diskette, etc. The interface file specifications presented in this document define a standardized representation for and intermediary object (file) that encapsulates the data to be exchanged.

1.4.1 Export Operation

The interface export operation consists of the following logical steps for both TC-AIMS II and ICODES.

1. Pull the appropriate data form the internal representation of the system.
2. Translate the data to the format specified in table 4.2.
3. Write the header record specified in table 4.1 to a file.
4. Successively write the translated data records to the same file.

5. Compress the file using the gzip compression utility.
6. Physically or electronically transfer the file to the interfacing system for import.

1.4.2 Import Operation

The interface file import operation consists of the following logical steps for both TC-AIMS II and ICODES.

1. Uncompress the exported file using the gzip compression utility.
2. Read the header record specified in table 4.1 from the file to positively identify the type and version of the file.
3. Successively read the data records specified in table 4.2 from the file.
4. Translate the data records to the internal format of the system.
5. Use the translated data records to update the internal representation of the system.

1.5 Responsibilities

1.5.1 TC-AIMS II Project Manager

The TC-AIMS II PMO will incorporate into TC-AIMS II the functionality in the Program Executive Office (PEO) Standard Army Management Information Systems (STAMIS) Operational Requirements Document (ORD) to include the export and import capabilities described in section 1.4.

1.5.2 ICODES Program Manager

The ICODES PMO will incorporate into ICODES the export and import capabilities described in section 1.4, and the capability to generate a load plan from the cargo data imported from an interface file exported by TC-AIMS II.

1.6 Procedural and System Changes

1.6.1 General

During the life cycles of ICODES and TC-AIMS II, the PMO of either system may discover new or changed operational requirements that will affect this interface. All affected parties will be notified in writing 120 days prior to implementing the proposed/required change(s). Notifications will clearly describe the intended change(s) and identify transaction changes that will affect the interface between the ICODES and the TC-AIMS II. Modifications to TC-AIMS II will be submitted in accordance with established Configuration Management (CM) procedures and approved by the Joint Project Management Office (JPMO) or the Joint Configuration Control Board (CCB). The party making the change will initiate the required notification.

1.6.2 Regulatory Changes

If a procedural change is the result of a Service or Agency regulatory change, both parties to the IA will agree on the implementation actions and an effective date.

1.6.3 Functional or Technical Changes

Changes that result in functional, technical or procedural changes, or changes to standard data tables and elements affecting only one system will be initiated by the responsible PMO. The responsible PMO will propose a mutually acceptable implementation date for the change(s).

1.6.4 Year 2000 (Y2K) Compliance

The April 1997 DOD Year 2000 Management Plan directs system developers and maintainers, along with the system's functional proponent, to certify and document each systems Year 2000 (Y2K) compliance. The TC-AIMS II software suite will be certified Y2K compliant. The interface exchange date data requires Y2K compliance or implementation of consistent Y2K corrections to enable correct date data passage between your system and TC-AIMS II. Current and projected status of Y2K compliance will be provided to the PMO of each system prior to approval of this Interface Agreement.

1.6.5 Modifications

Upon agreement, all modifications to this interface will be documented herein and recorded on a change sheet. Revised page(s) will be produced and the IA signed and dated by all concerned parties.

1.7 Life Cycle Maintenance

Life-Cycle Maintenance and overall logistics support planning for TC-AIMS II is described in the Integrated Logistics Support Plan (ILSP) for TC-AIMS II. This agreement will be reviewed and augmented as required.

2. TC-AIMS II Attributes

2.1 System Attributes

The TC-AIMS II is a top-down directed program aimed at addressing a critical shortfall in the movement of material and personnel in support of Department of Defense (DOD) transportation operations as defined in the TC-AIMS II Mission Need Statement. TC-AIMS II falls within the DOD mission area supporting Mobility/Transportation of the DOD Personnel and Cargo. TC-AIMS II will provide unit mobility and installation transportation officers throughout DOD with a single, effective, and efficient automated information system (AIS) which provides transportation management of unit movement, passengers, and cargo during day-to-day operations within the Defense Transportation System (DTS).

The TC-AIMS II system is the result of a joint effort of the U.S. Armed Forces and the JPMO headed by the U.S. Army as the Executive Agent. TC-AIMS II provides automated support to functions performed by Unit Movement Officers (UMOs) and Installation Transportation Offices/Transportation Movement Offices (ITOs/TMOs), who previously used a mixture of differing service automated systems and manual processes. TC-AIMS II goal is to improve and expedite unit movements and Transportation Operating Agency (TOA) actions, providing timely and accurate information for use at all Joint Deployment Communities (JDCs) command levels in support of CONUS (Continental United States), OCONUS (Outside the Continental United States) and in theater RSO&I (Reception, Staging, Onward Movement and Integration) operations. Processing, tracking,

and reporting of data from TC-AIMS II will be available to decision-makers at various command levels via the In-transit View (ITV) capability of the Global Transportation Network (GTN).

The TC-AIMS II system includes software and processes installed on service provided hardware that supports unit movement and sustainment transportation functions as well as provide access to various load planning functions. These functions are available to the TC-AIMS II user from a unit/installation level via a client/server network or a stand-alone configuration whether in-garrison or deployed.

2.2 Hardware

The TC-AIMS II program is designed to operate on hardware provided by the Services in both client/server network and standalone environments. The client and standalone hardware platforms for TC-AIMS II are IBM PC-compatible computers, model 486 or higher and the Network Servers are Hewlett-Packard HP 9000D (development platform) or equivalent IBM PC-compatible computers

2.3 Software

TC-AIMS II client and standalone configurations run under MS Windows 95 or MS windows NT (Workstation) supporting a SYBASE Relational Database. Network server configurations run under either Hewlett-Packard UNIX (HP UX) or MS Windows NT Server supporting an Oracle Relational Database.

2.4 Interface Attributes

2.4.1 Procedures

In response to a request to for ship load plans a TC-AIMS II user will:

1. Input the criteria to identify the cargo to be deployed in conjunction with the requested load plan.
2. Export the identified cargo data to the interface file described in this IA.
3. Pass the exported interface file to an ICODES user via magnetic or electronic media.
4. Periodically (as needed) repeat steps 1 to 3 to update the interfacing ICODES system.
5. Periodically (as needed) import an interface file exported from ICODES to update the TC-AIMS II system.
6. Conclude the load planning activity in TC-AIMS II by importing an interface file exported from ICODES at the conclusion of the load planning activity within ICODES.

Note that the user of TC-AIMS II and the user of ICODES may be the same person or activity.

2.4.2 Data Exchange

Data transfer will be accomplished using an ASCII text file on 3.5 HD diskette or an electronic file transfer where connectivity exists.

2.4.3 Precedence

The processing precedence for this interface will default to routine.

2.4.4 Communications Link

TC-AIMS II communications software will support data replication and open server technology interfacing with external systems via the DISN (NIPRNET/SIPRNET).

The actual mode used is dependent on the Service provided systems connectivity and communications capabilities to DISN or the Internet or, if collocated, the unit/base LAN. Data transfer will be accomplished by an ASCII file with a .ITC extension on 3.5 HD diskette or electronic data transfer. The .ITC exchange file is a tab delimited text file. A mutually agreed upon data compress/decompress program will be used to facilitate diskette data transfer.

2.5 Service Levels

No service levels for this interface will be established. Data will be passed on an as required basis, no special processing is required.

2.6 Points of Contact

2.6.1 Functional

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2.6.2 Technical, Communications and Security

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2.7 Security

The TC-AIM II software suite will be certified and accredited to meet the Command and Control (C2) security criteria specified in DOD 5200.28-STD (the Orange Book) and will comply with the minimum security requirements as specified in DOD Directive 5200.28.

2.7.1 Data Protection

Data exchanged through this interface will have a data sensitivity rating no higher than Sensitive But Unclassified (SBU). Data protection mechanisms used for all electronic communication will be commensurate with those required for SBU data. These mechanisms will include but not be limited to those prescribed by, and derived from security policy in accordance with the DOD guidelines specified in the Assistant Secretary of Defense Letter, Attn: Command Control, Communications and Intelligence, 20 March 1997, subject: Secret and Below Interoperability (SABI). These guidelines specify the use of, where appropriate, software base data encryption compliant with the Data Encryption Standards (DES).

2.8 Communication Verification

The File Transfer Protocol (FTP) communication includes verification and notification modules to provide the sender notification of successful/non successful file transfer. Recovery from file transfer problems is built into the various communications protocols. If these built-in recovery functions do not result in successful completion, retransmission of the entire file is required.

2.9 System Support

The JPMO will operate a Help Desk support system to coordinate and resolve system problems reported from TC-AIMS II users. The Help Desk will provide a single-track problem resolution interface with the software developers as outlined in the ILSP. On line help, a tutorial and user manuals will be provided to TC-AIMS II users by the JPMO.

2.10 Data Requirements

2.10.1 Header Record

Identifies the file as a valid exchange file and gives the version number. Detailed specifications for the Header Record are given in Table 4-1.

2.10.2 Cargo Record

Contains the data that represents a particular cargo item to be displayed. Detailed specifications for a Cargo Record are given in Table 4-2.

2.10.3 Data Description

Detailed specifications of the data exchanged and the format for the exchange are given in Section 4.

3. ICODES Attributes

3.1 System Description

The ICODES (Integrated Computerized Deployment System) is a ship load planning software application that utilizes artificial intelligence (AI) principles and techniques to assist embarkation specialists in the rapid development of cargo stow-plans. It includes expert agents with knowledge in specific domains (e.g., hazardous material handling, trim and stability, ramps, cranes, and internal access paths) to evaluate and propose loading alternatives and recommendations. ICODES integrates with information management and documentation systems such as WPS, TCAIMS II, and IBS, to receive cargo lists and send completed load plans.

In 1996 ICODES was selected as the 'migration' system for ship stow-planning by the Joint Transportation CIM Center (JTCC) of USTRANSCOM. Initially designed primarily for requirements of the Military Traffic Management Command (MTMC) and the US Army, ICODES is currently being adapted to also serve the specific embarkation needs of the US Marine Corps within the concept of a Joint Deployment Community. The MTMC version of ICODES (version 3.x) was installed at 10 test sites in January 1997 and is slated for full release and installation at MTMC ports worldwide during 1997-98. The joint version of ICODES is currently scheduled for release in the later part of 1999.

3.2 Hardware

The MTMC version of ICODES will be fielded on IBM RS-6000 Laptops, and custom HP portable computers 'ruggedized' for dock-side stow planning. The original development platform for the project was the Hewlett Packard 9000/700 series workstation. The joint version of ICODES will run under Windows NT operating system on an as yet determined hardware platform. This version of ICODES is scheduled for release in the later part 1999, early 2000 timeframe.

3.3 Software

ICODES is designed as a stand alone system, that supports interfaces to: WPS, TC-AIMS II, and IBS. Network connections, when available, can be used to transfer interface data electronically rather than magnetically.

3.4 Interface Attributes

3.4.1 Procedures

In response to a request to for ship load plans an ICODES user will:

1. Request the appropriate TC-AIMS II user to export an interface file.
2. Receive the TC-AIMS II exported file via electronic or magnetic media.
3. Import the TC-AIMS II exported interface file to initialized the Cargo Semantic Network of ICODES and begin the load planning activity.
4. Periodically (as needed) import TC-AIMS II exported interface files in order to update the Cargo Semantic Network of ICODES.
5. Periodically (as needed) export an interface file to update the TC-AIMS II system.
6. At the Conclusion of the load planning activity, export a final interface file to update the TC-AIMS II system.

Note that the user of ICODES and TC-AIMS II may be the same person or activity.

3.4.2 Data Exchange

Data transfer will be accomplished by a tab delimited ASCII text file with a .ITC extension on 3.5 HD diskette or electronic data transfer where connectivity exists.

3.4.3 Precedence

The processing precedence for this interface will default to routine.

3.4.4 Communication Link

ICODES communicates via Telebit Worldblazer modem using Hewlett Packard PPL interfacing with external systems via DISN (NIPRNET/SIPRNET) or the Internet.

3.5 Service Levels

No service levels for this interface will be established. Data will be passed on an as required basis, no special processing is required

3.6 Points of Contact

3.6.1 Functional

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3.7 Security

Data exchanged through this interface will have a data sensitivity rating no higher than SBU. Data protection mechanisms used for all electronic communication will be commensurate with those required for SBU data. These mechanisms will include but not be limited to those prescribed by, and derived from security policy in accordance with the DOD guidelines specified in the Assistant Secretary of Defense Letter, Attn: Command Control, Communications and Intelligence, 20 March 1997, subject: Secret and Below Interoperability (SABI). These guidelines specify the use of , where appropriate, software base data encryption compliant with the DES.

3.8 Communication Verification

The FTP communication includes verification and notification modules to provide the sender notification of successful/non successful file transfer. Recovery from file transfer problems is built into the various communications protocols. If these built-in recovery functions do not result in successful completion, retransmission of the entire file is required.

3.9 Systems Support

Problems encountered will be resolved by the System Administrator or forwarded to ICODES PMO for resolution. ICODES users are provided a Quickstart Users Manual, online help and an ICODES System Administration Manual.

3.10 Data Requirements

3.10.1 Header Record

Identifies the file as a valid exchange file and gives the version number. Detailed specifications for the header record are given in table 4-1.

3.10.2 Cargo Record

Contains the data that represents a particular cargo item to be deployed. Detailed specifications for a cargo record are given in Table 4-2.

3.10.3 Data Description

Detailed specifications of the data exchanged and the format for the exchange are given in Section 4.

4. Interface File Specifications

4.1 Naming Conventions

4.1.1 File Names

There will be no constraints on the actual name (file name less extension) of the ICODES TCAIMS Cargo File specified for the interface; however, standard filename constraints imposed by the operating systems running the ICODES and TCAIMSII applications will apply. Conventions that code information within a filename to make it easily identifiable will be left to the standard operating procedures local to the users of the interface.

4.1.2 File Name Extension

Interface file names will have a .ITC extension. All systems generating ICODES TCAIMSII Cargo Files are required to enforce the .ITC extension when writing the file out to disk. The standardized extension will allow easy identification of an ICODES TCAIMSII Cargo File, but should not be relied upon since file names can easily be changed by users. The interface file reading operation should always check the file header information to determine whether the file is in the ICODES TCAIMS Cargo format implied by the .ITC extension. Operationally, the users of both systems should be required to keep .ITC extensions.

4.2 File Structure

4.2.1 Logical Structure

The data within the interface file is logically divided into records of two types: header, and data. The data records contained in the interface file are generated by constructing the universal relation of all objects (ICODES) or tables (TCAIMSII) containing the desired data attributes. The records to be exchanged will be subject to query constraints that identify the desired qualities for inclusion in the cargo list that is represented by the interface file. The concept of a universal relation can be expressed in relational algebra as the outer join of all the applicable tables.

4.2.2 Physical Structure

The format of the interface file precisely specifies the way in which data must be presented in order for it to be understood by ICODES or TCAIMSII via the interface. The file consists of a header and a data segment. The header segment starts on the first line of the file, and consists of one record in the header format. The data segment begins on line two, and consists of zero or more records in the data format.

The header and data records consist of ordered lists containing the values of the prescribed attributes in an ASCII format. The fields that hold the attribute values will be delimited by *tabs*. Null fields will have nothing in them and can be recognized by adjacent *tabs*, or a *tab* in the first column of the record. The end of a record is signified by a carriage return (ASCII 13).

Data fields that have not been read in at the time the carriage return is encountered are assumed to be NULL. This means that readers should not count on a fixed number of data fields within a record. Fields encountered after all the attributes of a particular record type have been read in, but before the carriage return will be ignored. This allows for an easy transition to new file versions which will typically add additional attributes to the end of the data record type.

4.2.3 Record Ordering

The first record in the file will be the header record. The data records will be sorted in multiple levels. This will allow single pass processing of the interface file, which will ease the memory requirements for data intensive operations such as updating one cargo list with another. The data records will be sorted first by TCN, in order to group MILSTAMP Shipment Units. The records with a given TCN will be further sorted by package id and correspond to the Shipment Unit Pieces (packages) within a Shipment Unit. All data records must have a unique, non-null Package Id and a unique or null TCN.

4.2.4 Record Data Types

All the data within an interface file must be composed of printable ASCII characters. The following documentation defines three basic data types. A *char* data type consists of alphanumeric characters only. The *int data* type consists of numeric characters only. The *dec* data type consists of numeric characters only, but may contain one optional period to signify a decimal point. The numbers following a type name in the documentation refer to the maximum number of characters that may be contained in the corresponding data field unless the type name is preceded by the word *fixed*, in which case the data field only accepts a fixed number of characters as defined by the number following the type name.

4.3 Header Segment

4.3.1 Description

The header segment will consist of the first line of the interface file. It will contain only one record in the header format. The record contains the type name and version number of the interface file. The type name field for this interface file will always have the value ICODES TCAIMS CARGO. The initial version will be 01. The fields are delimited by *tabs*. File readers should always read the

record in the header segment to verify the type and version of the interface file, before processing the interface file.

4.3.2 Record Layout

Table 2.1 defines the format of a header record. The Position field defines the place of the attribute named in the Attribute field, which is described in the Description field. The type field defines the characteristics of the ASCII characters that can be contained within the corresponding position of the record (See the section 4.2.4 on Record Data Types).

Table 4.1: Header Record Layout

Position	Attribute	Type	Description
1	File Type Name	char 19	Type of interface file Always ICODES TCAIMS CARGO
2	Version Number	fixed char 2	The version for this type of file This IA only supports version 01

4.4 Data Segment

4.4.1 Description

The data segment will begin on the second line of the interface file, and will continue to the end of the file. Each line within the data segment will correspond to one data record whose fields are delimited by tabs.

4.4.2 Record Layout

Table 2.2 shows the position within a record, name, type, and description for each data attribute in the ICODES TCAIMS Cargo File. The attribute names correspond to those in the ICODES Cargo Data Model. The type field refers to the type of the attribute as it appears in the interface file and not necessarily as it is represented in ICODES or TC-AIMS II (See section 4.2.4 on Record Data Types).

Table 4.2: Data Record Layout

Position	Attribute	Type	Description
1	AmmoType	char 1	Type of ammunition, fireworks (F), or substance(S)
2	Asset Type	char 20	Category of vessel assigned to item
3	Association	char 15	Link type for associations BTW Packages
4	AIT Location	char 9	AIT Location code, identifies location within a geolocation.
5	Bed Height	int 4	Height of the bed of a vehicle in inches
6	Booking Number	char 5	MILSTAMP Booking Number
7	Bumper Number	char 8	Vehicle bumper number
8	Cargo Category	char 3	JCS cargo category
9	CIIC	char 1	Controlled Inventory Item Code, [HCUS, F1]
10	Class	char 1	UN/NA hazard class, first character of the IMO Code [HMRD, 172.101.d]
11	Commodity	char 3	MILSTAMP Commodity code, [MILS, F20.2.d]
12	Compat Group	char 1	Hazardous compatibility group, last character of the IMO Code, [HMRD, 172.101d]
13	Configuration Code	char 2	NSN Cargo Configuration Code, [SCTM,3-1i]
14	Container Number	char 8	Serial number identifying a container, [MILS, F6]
15	Container Owner	char 4	MILSTAMP Container Owner, [MILS,F12]
16	Coverage	char 1	Container coverage (open or closed)
17	Cube	int 4	The Volume of item in cubic feet
18	Description	char 60	Description of cargo item (booking or model)
19	Division	char 1	UN/NA Hazardous Division, second character of IMO code, [HMRD, 172.101d]
20	DODIC	char 4	DOD munitions identifier
21	Dot Class	char 1	Hazardous dot class, [HCUS, D1]
22	Embark Category	char 1	Category for embarkation
23	Embarkation Team	char 15	Identifies all personnel, supplies, and equipment assigned to a ship
24	Expiration Date	char 5	Expiration Date in format
25	Haz Volume	int 4	The volume of hazardous material in this item
29	HazWeight	int 4	The weight of hazardous material in this item
30	Hdlg	char 1	MILSTAMP Special Handling code, [MILS, F20.4]
31	Height	int 2	Actual height of the item in inches.
32	Label	char 20	Hazardous label Name for an item, [HMRD, 172.101.g]
33	LIN	char 6	ECF Line Item Number, [SCTM, 3-1.b]
34	LIN Index	char 2	ECF Line Item Index, [SCTM, 3-1.b]
35	Load Weight	int 4	Maximum weight that may be loaded in or on item
36	LogicalSet	char 10	Identifier for a logical set
37	Lot	char 15	Package lot number
38	LSN	int 4	Landing serial number - assigned grouping for landing
39	LTI Code	char 1	Identifies last known status of an item
40	Length	int 4	Actual length of item in inches
41	Mission Number	char 15	Identifier for a mission in TCAIMS
42	Mode	char 1	MILSTAMP mode of transport code, [MILS, F13]
43	Model	char 14	Model identifier of item, [SCTM, 3-1.h]
44	Movement Status	char 1	Identifier for the last known movement status of item
45	MSE	char 5	Major subordinate element

Table 4.2: Data Record Layout
(Continued)

46	NEW	dec 6	Net explosive weight
47	Notes	char 60	Miscellaneous notes
48	NSN	char 13	National stock number, [SCTM, 3-1c]
49	Offload Geolocation	char 4	Geolocation code for the debarkation location
50	Offload Priority	int 2	Priority for debarkation
51	Onload Geolocation	char 4	Geolocation code for the embarkation location
52	Onload Priority	int 2	Priority for embarkation
53	Other Provisions	char 40	Hazardous stowage requirements, [HMRD, 176.84]
54	Package Id	char 12	Identifier for individual Shipment Unit Pieces
55	Packing Certificate	char 25	Free form palletization and Containerization information
56	Packing Group	int 1	Hazardous degree of danger, (1, 2, or 3), [HMRD, 172.101.f]
57	Parent Pkg Id	char 12	Package Id of the parent Shipment Unit Piece
58	Parent Pkg NSN	char 13	NSN of the parent Shipment Unit Piece
59	Parent Pkg UIC	char 6	UIC of the parent Shipment Unit Piece
60	Planid	char 8	TCAIMS plan identifier
61	POD	char 3	MILSTAMP Port Location code for debarkation, [MILS, F21.4]
62	POE	char 3	MILSTAMP Port Location code for embarkation, [MILS, F21.4]
63	Primary TCN	char 17	TCN of parent Transportation Unit
64	PSN	char 23	Hazardous proper shipping name, [HMRD, 172.101c]
65	Pieces In	int 4	Quantity of items contained within a single cargo or package
66	Pieces Of	int 2	Quantity of identical cargoes or packages represented by this item
67	Rounds	int 6	Round count of ammunition
68	RStat	char 1	MILSTAMP record status code
69	Seal Number	char 20	Identifier for a seal on this item
70	Section	char 3	Identifier for a section with a unit
71	Serial Number	char 20	Serial Number of item
72	Service	char 2	Owning service code
73	Ship	char 17	Ship name assigned to item
74	Source Geolocation	char 4	Geolocation code for the point of origin
75	Stack Limit	int 2	Maximum number of identical cargoes that can be stacked
76	Stow Area	char 4	MILSTAMP stow area designation for item [MILS, F16]
77	Special Provisions	char 40	Hazardous special provisions
78	Supply Class	char 1	Supply Class
79	Tag	char 1	USMC attribute related to AIT
80	Tag Id	int 4	USMC attribute related to AIT
81	TAMCN	char 13	Control number for the Table of Authorized Material
82	TCN	char 17	MILSTAMP Transportation Control Number
83	Time Stamp	char 8	AIT time stamp
84	Turning Radius	int 4	Minimum turning radius for item
84a	Transaction Type	Char 1	Indicates if the record has been (A)dded, (C)hanged or (D)eleted
85	Type Cargo	char 1	MILSTAMP Type Cargo code, [MILS, F20.3]
86	Type Equip	char 1	Identifier for a particular type of equipment, [SCTM, 3-1.g]
87	Type Explosive	char 11	Type of explosive
88	Type Pack	char 2	MILSTAMP Type Pack Code, [MILS, F14]
89	UIC	char 6	Unit Identifier Code
90	ULN	char 7	Unit Line Number
91	Unit of Issue	char 2	Unit of measure or issue for specifying cargo quantity

92	UN/NA	char 2	Indicates if a UN or an NA hazardous identifier is used (UN or NA)
93	UNUM	fixed int 4	UN/NA hazardous type identifier, [HMRD, 172.101e]
94	UPTT Code	char 2	UPTT type cargo code
95	Vessel Stowage	char 1	Permissible hazardous stow locations, [HMRD, 172.101k]
96	Voydoc	char 5	MILSTAMP Voyage Document Number [MILS, F18]
97	Weight	int 6	Weight of item in lbs
98	Width	int 4	Width of item in inches
99	Zone	char 2	Assigned cargo zone for item

5. References

- HCUS** U.S. Army Defense Ammunition Center and School (1994); 'Hazard Classification of United States Military Explosives and Munitions'; U.S. Army Industrial Operations Command, Rock Island, IL 61299-6000.
- HMRD** Bureau of Explosives (1996); 'Hazardous Materials Regulations of the Department of Transportation' (49 CFR); Washington, DC.
- MILS** 'Military Standard Transportation and Movement Procedures'; Department of Defense, Office of the Assistant Secretary of Defense.
- SCTM** Departments of the Army and Navy (1996); 'Standard Characteristics for Transportability of Military Vehicles and Other Outsize/Overweight Equipment' (TB 55-46-1); Headquarters Departments of the Army and Navy; Washington, DC.

6. Acronyms

Abbreviation	Description
AIS	Automated Information System
ASCII	American Standard Code for Information Interchange
C2	Command and Control
CCB	Configuration Control Board
CODES	Computerized Deployment System
CONUS	Continental United States
CM	Configuration Management
DES	Data Encryption Standards
DISN	Defense Information System Network
DoD	Department of Defense
DTS	Defense Transportation System
FTP	File Transfer Protocol
GTN	Global Transportation Network
HP	Hewlett-Packard
IA	Interface Agreement
IBS	Integrated Booking System
ICODES	Integrated Computerized Deployment System
ILSP	Integrated Logistic Support Plan
IP	Internet Protocol
ITO/TMO	Installation Transportation Office/ Traffic Management Office
ITV	In-Transit Visibility
JDC	Joint Deployment Community
JPMO	Joint Program Management Office
JTCC	Joint Transportation (CIM) Corporate Information Management Center
LAN	Local Area Network
MTMC	Military Traffic Management Command
NIPRNet	Unclassified-Sensitive IP Router Network
OCONUS	Outside the Continental United States
ORD	Operational Requirements Document
PC	Personal Computer
PEO	Program Executive Office

Abbreviation	Description
PMO	Program Management Office
SABI	Secret and Below Interoperability
SDSS	Spatial Decision Support System
SBU	Sensitive but Unclassified
RSO&I	Reception, Staging, Onward Movement, and Integration
SMTP	Simple Mail Transfer Protocol
SIPRNET	Secret internal Protocol Router Network
STAMIS	Standard Army Management Information Systems
TC-AIMS II	Transportation Coordinators' Automated Information for Movement System II
TOA	Transportation Operating Agency
UDL	Unit Deployment List
UMD	Unit Movement Data
UMO	Unit Movement Office/Officer
USTRANSCOM	United States Transportation Command
WAN	Wide Area Network
WPS	Worldwide Port System