CHAPTER 208

PACKAGING AND HANDLING

A. GENERAL

This chapter provides general guidance on the handling of packaged material.

B. RESPONSIBILITIES

Installation Commanders (CDRs) will ensure:

- 1. All personnel involved with the shipment and preparation of hazardous materials (HAZMAT), to include handling and loading, are trained in accordance with (IAW) the requirements of Title 49 of the Code of Federal Regulations (CFR), Air Force Manual (AFMAN) AFMAN 24-604

 Preparing Hazardous Materials for Military Air Shipments, and Defense Logistics Agency Regulation (DLAR) 4145.41/Army Regulation (AR) 700-143/ Naval Supply Systems Command Instruction (NAVSUPINST) 4030.55D/Air Force Manual (AFMAN) 24-210_IP/Marine Corps Order (MCO) 4030.40C, and other modal regulatory documents.
- 2. All personnel involved in handling, repackaging, and loading operations are properly trained and understand marking and labeling requirements. The suggested source of training is the School of Military Packaging Technology, U.S. Army Defense Ammunition Center, McAlester, OK 74501-9053. Training is also available using the Department of Defense (DoD) Hazardous Material Packaging Computer Based Training (via the Internet): https://www.dau.edu/cop/hazmat/Pages/Course.aspx.
- 3. All personnel who operate materials handling equipment (MHE) are properly trained and licensed. Additionally, all contractor personnel who operate MHE or other vehicles transporting munitions, ordnance, or other explosives on Military Surface Deployment and Distribution Command (SDDC)-managed ocean terminals must receive a medical examination by a private physician and meet the physical requirements set forth in 49 CFR 391.41 through 49 CFR 391.49, Physical Qualifications and Examinations. Personnel required to have medical examinations must have on his/her person the original, or a photographic copy, of a medical examiner's certificate that he/she is physically qualified to operate the equipment to which he/she is assigned. If a contractor is found to be not physically qualified to operate a particular piece of munitionsladen equipment, approval of a medical variance leading to certification may be granted by the installation CDR. The installation CDR will review the variance request package and grant or deny the variance based on the information provided.
 - a. A variance request package will include:
 - (1) The medical examiner's report and findings
 - (2) A written statement from the employee's supervisor (Contractor or Government) stating the operator is capable of safely performing the required work
 - (3) A written recommendation from the government Safety Officer recommending approval or denial of the variance.
 - b. Variances may be granted on a case-by-case basis and noted on the individual's medical certification. The variance will only apply to operations at that particular location. The final decision to grant a variance must not substantially increase explosive risk and must be reevaluated during the individual's next required physical examination or if the medical conditions that caused the variance change.

- 4. Work areas are laid out to avoid bottlenecks and back handling of material.
- 5. All personnel understand and adhere to Occupational Safety and Health Administration (OSHA) requirements.
- 6. All activities that receive, store, issue, or ship material implement procedures for the control, reclamation, and reuse of reusable containers IAW Department of Defense Manual (DoDM) 4140.01.

C. REPACKAGING

- 1. Transportation operations will not have to repackage material. Repackaging will only be done when absolutely necessary.
- If transportation personnel suspect material may require repackaging, contact the installation
 packaging and preservation representative. Additional information can be obtained from the
 packaging and preservation representatives listed in <u>Table 208-1</u>, Inventory Control Points
 (ICPs).
- 3. The correct packaging materials and shipping containers must be used.
- 4. Repackaging of HAZMAT material must be performed IAW DLAR 4145.41/AR 700-143/ NAVSUPINST 4030.55D/AFMAN 24-210 IP//MCO 4030.40C.

D. HANDLING

- 1. Do not remove/tear tape, labels, or other items from any containers, especially fiberboard boxes.
- 2. If an item is dropped or damaged in transit, report it promptly using Transportation Discrepancy Report procedures IAW Chapter 210.
- 3. Do not put heavy items on top of light items when unitizing loads.
- 4. Packaging and labeling discrepancies are reported using a Supply Discrepancy Report (SDR) IAW DoD 4000.25-M, Defense Logistics Management System (DLMS), Volume II, Chapter 17, Supply Discrepancy Reporting.
- 5. Maintain correct separation and segregation of HAZMAT at all times IAW Air Force Joint Manual (AFJMAN) 23-209, <u>Storage and Handling of Hazardous Materials</u>.

E. MARKING AND LABELING

- 1. Marking and labeling are means of communication identified in MIL-STD-129, AFMAN, 24-604, 49 CFR, and other modal regulatory documents.
- 2. HAZMAT labeling must be IAW the modal regulations and clearly visible.
- 3. Do not use local labels unless specifically authorized by the Service/Agency.
- 4. DoD and contractor or vendor shipping activities will apply address markings using a bar coded Military Shipping Label (MSL) for all cargo shipments that will enter the Defense Transportation System (DTS). This includes shipments moving within the Continental United States (CONUS), between the CONUS and Outside the Continental United States (OCONUS), or conversely between OCONUS and the CONUS. Shipments originating at non-military facilities moving to or through any DTS node, to include origin, consolidation, transship, a receiving terminal, or a transportation office or supply receiving function will be considered to have "entered the DTS" and must be marked with an MSL. Shipments that will not enter the DTS will have address markings applied as specified by the cognizant activity. Additional information concerning the latest requirements can be found in the DoD Logistics Implementation Plan for AIT published by

the United States Transportation Command (USTRANSCOM) and available via links from https://www.ustranscom.mil/cmd/associated/ait/.

- a. Military Shipping Label, Generic, Figure 208-1; Military Shipping Label, Personal Property, Figure 208-2; and Military Shipping Label; Unit Move, Figure 208-3; show examples of acceptable MSLs. Only the exact format shown in Figure 208-4 can be printed and referred to as a DD Form 1387, Military Shipment Label, and it will be used when manual shipment documentation is the only labeling alternative available during emergency operations (when hand-written labels are the only alternative). With the exception of a hand-written DD Form 1387, all shipments entering the DTS are required to be marked with an MSL containing 3 of 9 linear bar codes (Code 39) with standard Code 39 characters and a two-dimensional (2D) PDF417 symbol. A specific MSL format is not required; however, keeping the MSL block numbers/titles associated with the DD Form 1387 data content is highly recommended. The specific orientation and placement of text and bar code symbols are not mandated as long as the MSL follows the provisions of American National Standards Institute (ANSI) Material Handling (MH)10.8.1, subject to the following exceptions:
 - (1) When the capability exists, the MSL label data requirements will be as identified in Paragraph J and Table 208-2, Instructions for Completing the MSL.
 - (2) DI codes will not be used in conjunction with the Code 39 bar codes described in <u>Table 208-2</u> (Transportation Control Number [TCN], Piece, Consignee).
 - (3) The MSL unique transport unit identifier will be the TCN and it will be printed in the top, left, building block of the MSL.
 - (4) DI/DEI codes will be used for the 2D symbols IAW International Organization for Standardization (ISO)/International Engineering Consortium (IEC) 15418 (ANSI MH10.8.2), as implemented by the DoD and shown in Appendix X.
 - (5) The 2D PDF417 symbol syntax will be IAW ISO/IEC 15434 (ANSI MH10.8.3), as implemented by the DoD and shown in Appendix X.
- b. Table 208-2 provides requirements for the in-the-clear and Code 39 bar code information on every MSL. Tables X-2 through X-6 provide requirements for the PDF417 2D symbol generated with MSL data, Transportation Control and Movement Document (TCMD) data, and supply information on every MSL using the Data Identifiers (DIs) and Data Element Identifiers (DEIs) contained in Appendix X. Linear bar code entries of TCN, piece number, and consignee Department of Defense Activity Address Code (DODAAC) are mandatory, as are the 2D symbol entries for available MSL, TCMD, and supply data. The bar code entries must be written to ANSI MH10.8.1 and ISO/IEC 15434 (ANSI MH10.8.3) standards, and in-the-clear entries required by Table 208-2 must be human-readable.
- c. Detailed procedures for applying shipment marking are specified in MIL-STD-129 http://quicksearch.dla.mil/. If the shipping container does not lend itself to application of the label, or if the label would cover or interfere with other required markings, the label will be attached to a general purpose tab or a placard. The outside containers of classified or protected (sensitive) shipments are marked as specified in MIL-STD-129 and the sponsoring Service directives, but will not identify the classified or protected nature of the material being shipped.
- 5. Shipment Unit (SU) documentation to include a packing list, kit list, and line item documents (DD Form 1348-1A, <u>Issue Release/Receipt Document</u>, <u>Figure 208-8</u>, DD Form 1149, <u>Requisition and Invoice/Shipping Document</u>, <u>Figure 208-9</u>, and DD Form 1150, <u>Requests for Issue/Transfer/Turn-In</u>, <u>Figure 208-10</u>) will be attached to the shipment or packaged with the

- shipment IAW MIL-STD-129. A copy of the TCMD will also be attached to the shipment, IAW Chapter 203, for SUs forwarded to CCPs and for ISO containers.
- 6. Prior to acceptance into the DTS, air mail terminals or designated representatives will ensure that all United States Postal Service (USPS) mail will have a USPS 135/136 label containing the following information: destination (Aerial Port Code), transportation control number, piece number, and weight. Example: OKO, 0235112248x006, pc 4/24, 12 lbs.

NOTE: All registered mail will have seal numbers.

F. ACTIVE RADIO FREQUENCY IDENTIFICATION (RFID) TAG

- 1. Active RFID tags used by the DoD for documenting shipment units or manifested loads are commissioned as either a data-rich format or as a license plate format. A data-rich active RFID tag has shipment data encoded on the tag and the data is sent to the Radio Frequency (RF) In-Transit Visibility (ITV) System. A license plate active RFID has no encoded shipment data but the shipment data is sent to RF-ITV System. Active RFID tags are continuously powered and are capable of being read at a distance of 300 feet. The management responsibilities, business rules, and data descriptions in the following paragraphs regarding active RFID are applicable to all DoD Components. They support asset visibility, ITV, and improved logistic business processes throughout the DoD logistics enterprise.
- 2. Active RFID Management Responsibilities.
 - a. Organizational responsibilities and funding procedures are identified in DoDM 4140.01.
 - b. It is the responsibility of the activity at which containers, consolidated shipments, unit move items, or 463L System air pallets are built or reconfigured to procure and operate sufficient quantities of RFID equipment to support the operations.
 - c. If the originating activity of the RFID Layer 4 shipment is a vendor/contractor location, it is the responsibility of the procuring Service/Agency to arrange for the vendor to attach active tags, either by providing sufficient RFID equipment for the vendor/contractor to meet the requirement, or requiring the vendor/contractor as a term of the contract to obtain necessary equipment to meet the DoD requirement.
 - d. An organization responsible for port or logistics node operation is also responsible for installing, operating, and maintaining RFID capability.
 - e. When responsibility for operating a specific port or node changes (e.g., aerial port operations change from strategic to operational), the losing activity is responsible for coordinating with the gaining activity to ensure RFID capability continues without interruption.
 - f. When active RFID devices are used in other than CONUS and U.S. possession locations, DoD Components will forward requests for frequency allocation approval via command channels to the cognizant military frequency management office to ensure that RFID tags comply with U.S. national and OCONUS Host Nation (HN) spectrum management policies. The Army Program Executive Office Enterprise Information Systems (PEO-EIS) Automated Movement and Identification Solutions (AMIS) office will assist DoD Components in frequency management issues related to active RFID tags and equipment purchased under the DoD RFID contracts by the AMIS office.
 - g. The USTRANSCOM J4-LT division is responsible for coordinating, establishing, and maintaining RFID tag formats at the shipment data element level. The active RFID shipment data format specification(s), the RF-ITV System interface document for active RFID transactions, and the RF device registration and naming convention (for RFID tag interrogator naming convention instructions, see Appendix K) are published by the AMIS

office and these documents may be accessed via their Web site at https://national.rfitv.army.mil. After Common Access Card (CAC) login, click on "RF-ITV Documentation" (at the bottom of the RF-ITV Tracking Portal Home Page).

- 3. Active RFID General Business Rules. The following business rules apply to active tag applications.
 - a. Commission and/or write active RFID tags for the following categories of DoD-owned shipments from CONUS to OCONUS, from OCONUS to CONUS, between OCONUS Combatant Commands (CCMDs) or within CONUS in support of North American Aerospace Defense Command (NORAD) and United States Northern Command (USNORTHCOM) operations and exercises.
 - (1) RFID Layer 4 freight container shipments of DoD-owned non-unit related sustainment or retrograde cargo, as well as sustainment shipments of DoD-owned non-unit related major organizational equipment not in an RFID Layer 4 freight container.
 - (2) RFID Layer 4 freight container unit move shipments of unit-related cargo, as well as unit move shipments of unit-related major organizational equipment not in an RFID Layer 4 freight container.
 - (3) RFID Layer 4 freight container shipments of DoD-owned ammunition/explosives.
 - (4) RFID Layer 4 freight container shipments of DoD-owned prepositioned stocks or War Reserve Material, as well as shipments of DoD-owned prepositioned major organizational equipment not in an RFID Layer 4 freight container. For current afloat assets, RFID tags will be commissioned or written and attached during the normal maintenance cycle, reconstitution reset, or sooner as required.

NOTE: See Part II Definition for Radio Frequency Identification Layer 4. The license plate tag commission process is similar to the data-rich tag write process except shipment data is not written to tag memory.

- b. Eligible shipment category deviations.
 - (1) Organizations may employ the use of active RFID technology for intra-CONUS shipments to support operations or for training. (NOTE: The use of RFID technology is mandatory for intra-CONUS shipments/deployments in support of NORAD and USNORTHCOM operations and exercises.) Organizations desiring the Defense Logistics Agency (DLA) to provide RFID tag support for intra-CONUS shipments will formally work the requirement through the DLA Performance Based Agreement process. Users should be aware that the sustainment format for the RFID tag is based on OCONUS shipment Advance Transportation Control and Movement Document (ATCMD) information. CONUS commercial bills of lading do not generate the same shipment data content. Data inquiry and data transfer utilities relying on an ATCMD data structure may not perform as expected.
 - (2) Shipments with a human escort or requiring signature service such as currency, courier, and U.S. mail do not require an active RFID tag.
 - (3) Shipments from the following specific organizations do not generally require an active RFID tag: Army and Air Force Exchange Service, Navy Exchange Service Command, Marine Corps Exchanges and Defense Commissary Agency, and Defense Logistics Agency Prime Vendor Program.
 - (4) Ammunition stocks to be consumed while afloat must not be tagged.

- (5) Self-deploying aircraft and ships and the organic materiel they carry do not require an active RFID tag.
- (6) By exception, any shipment or cargo type may be required to have an active license plate tag or active data-rich tag attached if the CCMD requests it for a specific operational requirement and the Joint Staff Logistics Directorate (J4) and Assistant Deputy Under Secretary of Defense (Supply Chain Integration) (ADUSD [SCI]) support the request.
- (7) An RFID tag is not required for unit move cargo where the Joint Operation Planning and Execution System (JOPES)-identified port of debarkation (POD) and the destination are the same.
- (8) Active RFID tags are not required for sustainment/retrograde "port-to-port" built pallets and rolling stock. A "port-to-port" built pallet/rolling stock is defined as a pallet (single or multi-train) or rolling stock that originated (pallet ID assigned) at an APOE and terminated (pallet ID deleted) at an aerial POD (APOD).
- (9) Sustainment cargo (pallets/rolling stock) destined for locations not supported by RFID interrogators do not require RFID tags (e.g., North Pole).
- c. The tags will be attached at the point of shipment origin for all activities (including vendors/contractors) that stuff containers or build pallets (e.g., 20- or 40-foot ISO containers, 463L pallets, and other large reusable containers [e.g., containers used to convey large items such as engines or transmissions]), or activities that ship unit move or prepositioned major organizational equipment.
- d. Active RFID tag-related shipment data (see Appendix K) must be sent to the RF-ITV System maintained by the Army AMIS office (https://national.rfitv.army.mil). Tag ID and sensor status (as applicable) information obtained during in transit tag interrogation is automatically sent to the RF-ITV System.
- e. When an RFID Layer 4 shipment is reconfigured during transit, the accompanying active RFID tag must be written to reflect the reconfigured shipment data and the new data record sent to the RF-ITV System.
- 4. Active RFID Tag/Accessory Issues and Returns.
 - a. The primary method to acquire active RFID tags is through the normal supply requisitioning process from DLA. Active RFID tags may also be purchased directly through the AMIS RFID contract (see http://www.usarmyamis.army.mil).
 - b. Active RFID tags are designed for reuse and will function properly over many years of repeated use. Periodic battery replacement will be required depending on frequency of use and number of interrogations.
 - c. The legacy active RFID tags migrated from the ANSI INCITS 256 standard protocol to the ISO/IEC 18000-7 standard protocol. As of 1 Jan 2015, only ISO tags will be used to meet DTR requirements. Contact the AMIS office for source information if dual-mode capable (ANSI/ISO) infrastructure equipment is required.
 - d. Serviceable ISO tags (condition code A) and restorable ISO tags (condition code E/G) excess to operational requirements should be returned to collection points identified by the Service, CCDR, or Defense Agency for reuse IAW standard operating reuse/return procedures. Collection points should be resourced to refurbish restorable ISO tags (i.e., replace battery caps and/or batteries) to fully serviceable status (condition code A). ISO tags (condition code A/E/G) excess to geographical retail requirements should be reported to the DoD Item

Manager and shipped as per instructions. Activities are encouraged to use this DLMS Materiel Returns Program (MRP) process to return ISO tags (condition code A/E/G) no longer required and receive reimbursement for Packaging, Crating, Handling, and Transportation (PCH&T) costs.

- (1) The PCH&T reimbursement incentive for serviceable/restorable ISO tags received with MRP transactions will result in reduced costs and savings to the DoD. Distribution instructions will be provided telling activities where to send tags reported as excess to the ICP.
- (2) Serviceable/restorable ISO tags sent back without MRP transactions will not result in PCH&T reimbursement to the customer; however, they will be reused and result in significant reduction in cost to the DoD. The ISO tags returned without MRP transactions may be sent to either of the following addresses:

SW3100 Transportation Officer	SW 3224 DLA Distribution San Joaquin
DDSP New Cumberland Facility	Receiving Warehouse 57
Building 2001 Mission Door 113-134	25600 South Chrisman Road
New Cumberland, PA. 17070-5002	Tracy, CA 95376-5000

- (3) All ANSI tags and physically damaged ISO tags should be turned in with proper documentation (e.g., DD Forms 1348-1A or 1149) to the nearest DLA Disposition Services Office (unless directed otherwise by competent authority). Customers will receive no reimbursement for this turn-in.
- e. The Services, other requisitioners, and users may opt to establish their own retail operation for used RFID tags and incur the cost of refurbishment themselves.

5. Active RFID Tag Use.

- a. RFID Tag Management. RFID tags are an item of supply that will be used IAW DoD, Service, and/or Geographical CDR issuances. However, since they are a necessary component of the DoD's ITV capability, there are business process requirements which will be followed in order to ensure the RFID infrastructure reliably reports ITV information.
 - (1) Active RFID tags are designed for reuse and DoD Components are responsible for tag management and reuse, regardless of the method they are acquired.
 - (2) The tags will be operationally checked prior to each use (the tag will beep when the battery is installed to indicate the power is on).
 - (3) If a tag is written in a location other than the location where it will be attached to a shipment, the tag may need to be deactivated (battery polarity reversed) during its movement to the cargo attaching site to preclude false reporting of shipment location. Deactivating the tag does not erase the data stored in the tag.
 - (4) When a shipment is terminated/delivered or the tag is stored, the tag must be deactivated (battery polarity reversed) to preclude false reporting of tag assignment or shipment location.
 - (5) The ISO/IEC 18000-7 format tags (identified with a 14-digit ID number on the tag label) are commissioned/written using a USB cable and/or via RF transmission depending on the tag version (e.g., license plate tags are RF only).
 - (6) After an RFID tag is commissioned/written, the complete RFID shipment data generated for the RFID process will be sent to the RF-ITV System before the cargo begins

movement. If this is not done, the RF-ITV System may report the tag's new movement/locations for cargo data previously written to the tag file.

b. RFID Tag Mounting on Shipments

- (1) The electrical connection port on the tag will be covered with the rubber cap unless being accessed for tag processing.
- (2) The tag ID number and its related bar code will not be obscured by user applied labels.
- (3) The tag battery compartment will not be covered with a label such that it cannot be opened to access the battery.
- (4) Tags will be secured to the shipment with the optional commercial mounting brackets, magnetic mounts, or with two high-strength plastic/wire tie straps (each with at least 10 pounds of tensile strength recommended are 50-lb tensile strength plastic tie straps). The use of high-strength tie straps is especially important for tags secured to the exterior netting of 463L System air pallets.
 - (a) Tags secured to unpackaged equipment, equipment in ISO flat racks, or 463L System pallet netted loads will be secured in a visible location close to the MSL, if labeled, or the pallet ID placard.
 - (b) Tags that are tied/strapped to the exterior surface of ISO containers or RO/RO trailers will be attached to the vertical, locking door bar (above the locking handle so as not to interfere with its operation) on the left rear door (facing the container) the right door is usually opened for inspection/customs access. When possible, put the tag under or between the vertical locking bars in a corrugated channel. The tag will be attached so it never extends above/beyond the exterior surface or an exterior protrusion of the container to such a degree that the tag may get scraped off when loading the container into a ship's stow cell. Tags that are attached to containers with magnetic mounts must also be securely fastened to the magnetic fixture. Tags designed with special mounting features will be attached IAW their application instructions.
 - (c) Tags constructed in a "C" clamp form (e.g., ST-675-I) so as to be placed onto the left door of an ISO 668: 1995(E) Series 1 freight container will only be used for that purpose.
- 6. Active RFID Shipment Data Content-Level Detail (see <u>Table 208-3</u>). If the active RFID tag shipment content-level detail data is considered mission essential or conditional (see Appendix K), the data is sent to the RF-ITV System and also encoded in the RFID tag. For license plate RFID tags, the shipment content-level detail data is only sent to the RF-ITV System and is not encoded in the RFID tag.
 - a. Shipment content-level detail includes the asset detail data elements that describe the asset plus the cargo detail data elements necessary to minimally identify and handle each level of a complete shipment entity, which is a single shipment unit, a consolidated shipment unit, or a manifested load. The most basic shipment entity is a single box or unpacked item marked with a shipment unit identifier.
 - (1) Asset detail is the fundamental information necessary to describe the physical characteristics of a single asset and the characteristics that identify that asset.
 - (2) Cargo detail describes the accountable characteristics of the included assets, the physical characteristics of the packaged shipment, and the respective cargo identifiers and handling characteristics.

- b. The content-level detail data may be obtained from requisition documents, shipment status transactions, Advance Shipment Notice (ASN) transactions (ATCMD, manifest, shipment status, and MILSTRIP status information), consolidated shipment notice transactions, the TCMD, and commercial carrier transactions.
- c. The content-level detail TCN generated for RFID Layer 4 freight containers may be derived from TCMD header records, manifest header information, or the MSLs that mark the cargo. The TCN for consolidated movements has several colloquial titles such as: lead TCN, header TCN, prime TCN, or conveyance TCN. The TCN is unique and not duplicated by subordinate TCNs within the consolidation or unitized load.

NOTE: The active RFID shipment data requirements at Appendix K are the legacy and current data formats structured to accommodate legacy and new RFID tag capabilities. The active RFID data requirements will be updated to include the content-level detail data listed in <u>Table 208-3</u> as RFID tag capabilities are upgraded and data becomes available in supporting systems.

- 7. Active RFID Shipment Data TCMD Detail. The active RFID shipment data requirements at Appendix K include a requirement to encode shipment unit or manifest TCMD record information using the DLSS MILS 80-column format. If the TCMD information is in a format other than the DLSS MILS format, it cannot be encoded on the tag or sent to the RF-ITV System.
 - a. TCMD entries are conditional data (must be provided if available).
 - b. The MILS 80-column format is being phased out by the DoD, but some or all of the TCMD data elements remain as critical information required for supply chain processing. The TCMD element information in the RFID tag memory or in the respective RFID shipment data on the RF-ITV System are now used by transshipper activities to pre-lodge advance shipping data into their automated information systems when ATCMD information is not available.
 - c. <u>Table 208-4</u> identifies the TCMD detail data elements (which are in addition to the content-level detail elements identified in <u>Table 208-3</u>) that may be available within an active RFID tag.
 - d. Unit move shipments: When the capability exists, the transportation tracking number (TTN) generated by shipping applications that support unit movements for each shipment unit will be encoded in the tag data file as User Defined information. See Appendix K, Table K-6. The TTN is a conditional element that must be encoded if it exists for the shipment identified with a ULN. The TTN cannot be changed once generated for a specific shipment unit. The TTN associated with the lead TCN for the active RFID tag will also be sent to the RF-ITV System.

8. Active RFID Transactions.

- a. RFID shipment data files and interrogator reads will be generated and forwarded to the RF-ITV System IAW established DoD data timeliness guidelines published in this regulation (see Table 202-2, Timeliness Evaluation Criteria) and the Joint Publication 4-01, <u>Joint Doctrine</u> for the Defense Transportation System, in-transit visibility reporting requirements.
 - (1) The complete RFID shipment data will always be sent to the RF-ITV System, even in cases where the RFID shipment data is generated for a data-rich RFID tag and then truncated IAW the active RFID Tag Data Format Specification because of tag memory limitations. See Appendix K.
 - (2) RFID shipment data and nodal events are further transmitted to the Integrated Data Environment/Global Transportation Network (GTN) Convergence (IGC) and other global asset visibility systems as appropriate.

b. Transaction formats for transferring RFID shipment data to and from the RF-ITV System will be as negotiated between the sending and receiving parties using interface requirements/design documents. Contact the AMIS Office for the latest formats and documents.

G. PASSIVE RFID TAG

- 1. Passive RFID tags reflect energy from the reader/interrogator or receive and temporarily store a small amount of energy from the reader/interrogator signal in order to generate the tag response. Passive RFID requires strong RF signals from the reader/interrogator and the RF signal strength returned from the tag is constrained to low levels by the limited energy. This low signal strength equates to a shorter range for passive tags than for active tags.
- 2. Passive RFID Responsibilities.
 - a. Logistics automated information systems involved in receiving, shipping, and inventory management will use passive RFID to perform business transactions IAW Service/Agency implementation schedules.
 - b. It is the responsibility of those DoD activities that ship or receive material to procure and operate sufficient quantities of passive RFID equipment (e.g., interrogators/readers, write stations [printers], and tags) to support required operations as the sites implement passive RFID for receiving and shipping.
- Passive RFID Marking Requirements. DoD suppliers/vendors and Components will resource and implement use of passive RFID tags IAW this regulation, Service/Agency implementation schedules, and other implementing documents which are available from https://www.acquisition.gov/dfars/252.211-7006-passive-radio-frequency-identification; they are MIL-STD-129, the United States Department of Defense Suppliers Passive RFID Information Guide, and DFARS 252.211-7006, Passive Radio Frequency Identification.
 - a. RFID technology is being implemented through a phased approach, applied both to supplier requirements and DoD sites. Passive RFID marking for shipments of goods and materials is being phased in by procurement methods, classes/commodities, location, and layers of packaging at the case and pallet level (as defined by MIL-STD-129 terms to be shipping containers, exterior containers within palletized unit loads, and palletized unit loads).
 - b. The DoD will use passive RFID tags, readers, and complementary devices that comply with the Electronic Products Code (EPC) global Class 1 Generation 2 specification and the performance requirements of MIL-STD-129. The DoD will still be expected to process the following older generation EPC tags: Class 0 and Class 1 Generation 1.
 - c. Bulk commodities will not be tagged IAW these passive RFID tagging requirements. Bulk commodities are products carried or shipped in rail tank cars, tanker trucks, other bulk, wheeled conveyances, or pipelines. Examples of bulk commodities are sand, gravel, bulk liquids (e.g., water, chemicals, or petroleum products), ready-mix concrete or similar construction materials, coal or combustibles such as firewood, and agricultural products (e.g., seeds, grains, and animal feeds).
- 4. Passive RFID Electronic Transactions. Transportation data, to include arrival and departure information, will be available for each node in the transportation pipeline and that transportation receipt conformation will be captured IAW Service/Agency implementation schedules. To achieve the requirements via RFID transactions of record, the DoD electronic transactions for departure, for transshipment, and for shipment unit receipt have been modified to ensure the transactions can be used with reference to the shipment's RFID tracking number. DoD Component automated information systems may use the transactions to automatically generate

the required departure, arrival, and shipment unit receipt transactions based on RFID interrogation and processing IAW the Supplier Implementation Plan schedules.

NOTE: For this requirement, requisition document receipt does not equate to shipment unit receipt. The commodity line items shipped under a requisition document number could be packaged in one or more shipment units.

- a. To effectively utilize RFID events to generate arrival and departure transactions of record in DoD logistics systems, RFID tag data with the associated shipment content-level detail information must be resident in the DoD data environment so that information systems can access this data at each RFID event (i.e., tag read).
 - (1) The DoD contractually requires commercial suppliers to provide standard EDI Ship Notice/Manifest 856 transactions IAW the ASN Federal Implementation Convention (IC) via approved electronic transmission methods (e.g., EDI, Web-based, or User-Defined-Format files) for all shipments using Wide Area Workflow IAW the applicable Defense Federal Acquisition Regulation Supplement rule.
 - (2) Internal DoD sites/locations and shippers will use the EDI IC 856S Shipment Status transaction, the EDI IC 856A Due-In Notice, or the EDI IC 856A Shipment-Consolidation Notice, as applicable, to report the association of TCN and RFID tag information.
- b. The EDI transaction sets enable the sender to describe the contents and configuration of a shipment in various levels of detail and provide an ordered flexibility to convey information. The Federal IC 856 and DLMS Supplement 856S and DTEB 856A transaction sets have been modified by the appropriate DoD controlling agencies to ensure the transactions can be used to list the contents for each shipment of goods as well as additional information relating to the shipment such as: order information; product description to include physical characteristics, the item count in the shipment, and item UID information; type of packaging to include container nesting levels within the shipment; and marking to include the RFID tracking number, carrier information, and configuration of goods within the transportation equipment.
- c. Passive RFID Frequency Spectrum Management. When passive RFID devices are used in other than CONUS and U.S. possession locations, DoD Components will forward requests for frequency allocation approval via command channels to the cognizant military frequency management office to ensure that RFID tags comply with U.S. national and OCONUS HN spectrum management policies. See MIL-STD-129 for RFID tag frequency information.

H. SATELLITE-BASED ITV

As the DoD continues to expand its use of satellite-based ITV systems, it becomes increasingly important for the information to be available to many users in summarized formats. Prior to transmitting satellite-based ITV date to the RF-ITV System, contact the AMIS office at usarmy.belvoir.peo-eis.mbx.amis-service-desk@army.mil, to arrange system interface and integration specifications agreements.

I. UNITIZATION

- 1. Unitization is the assembly of a group of containers or items into a single load. Unitization encompasses, but is not limited to, consolidation in a container, placement on a pallet or load base, or securely binding together. Guidance for palletization and banding of unit loads is found in MIL-STD-147, Department of Defense Standard Practice Palletized Unit Loads.
- 2. As per guidance found in MIL-STD-129, unit packs, containers, palletized unit loads, and unpacked items do not require individual address/bar code markings if they are unitized by the

shipper of origin into a single shipment unit and loaded into a ISO containers for delivery as a complete load to the ultimate consignee. The TCN for the single shipment unit inside the ISO containers will be different from the TCN for the ISO containers.

J. INSTRUCTIONS FOR COMPLETING THE MSL

- Human readable text, Code 39 linear bar codes, and a PDF417 symbol will be placed on each MSL. Some entries are keyed to numbered blocks on the DD Form 1387 and some are in addition to the form's requirements. The human readable unit of measure will be provided in U.S. standard terms (e.g., pieces, inches, feet, pounds for measured items) and the data values will be rounded up to the nearest whole number with leading zeros suppressed. Also see ANSI MH10.8.1.
- 2. The shipment planning, documentation, and movement of unit move cargo marked IAW the following MSL completion instructions will be as described in Appendix O, <u>Unit Move Documentation</u>, and DTR Part III, Appendix H, <u>Unit Move Documentation</u>, and Service regulations, directives, and field manuals. For unit moves, a JOPES TPFDD provides timing, priority, and mode selection for movement of cargo and equipment. Port calls are used to notify deploying units to report to the POE for onward movement and these notices will designate POE, specify reporting date and time, and identify carrier and mission number. In <u>Table 208-2</u>, selected data fields are shown as blank for unit moves to accommodate classification considerations and because unit move cargo does not normally free flow into POEs for onward movement.
- 3. In addition to <u>Table 208-2</u> elements, data for the following elements must be shown on the MSL for the conditions shown:
 - a. <u>All Shipments</u>: A PDF417 2D symbol will be printed on all MSLs IAW Appendix X.
 - b. <u>All Unit Move Shipments</u>: ULN, Length (in.), Width (in.), Height (in.), Unit Identification Code (UIC), Commodity/Special Handling Code (air or water), Vehicle Serial Number, and Equipment Description. When the capability exists, the TTN is only encoded in the PDF417 2D symbol it is not printed as text on the MSL.
 - c. Army Unit Move Shipments: Bumper Number, Model Number.
 - d. <u>Personal Property</u>: Personal Property BL Number, Carrier Name, Tare Weight, Net Weight, and Owner's Name.
- 4. The following data is optional:
 - a. <u>Additional Information</u>: Equipment Serial Number, NSN, Commercial Carrier Tracking Number and/or bar code.
 - b. <u>Local Processing Data</u>: Shippers (for example, DLA CCPs, unit deployment sites, and ammunition storage sites) may add internal processing information to the label as long as it is clearly marked and does not interfere with the orientation and placement of data as outlined in ANSI MH10.8.1—see example <u>Table 208-1</u> for DLA data.

K. UNITED NATIONS (UN) WPM REQUIREMENTS

1. Shippers providing WPM will ensure any packing material that consists/is made of wood (to include, but not limited to, dunnage, pallets, boxes, cleats, crates, and frames) meets the

phytosanitary requirements set forth in DoD 4140.65-M, <u>Issue</u>, <u>Use</u>, <u>and Disposal of Wood</u> Packaging Material (WPM).

- a. All WPM is required to meet the requirements of International Standards for Phytosanitary Measures Publication (ISPM) 15, <u>Regulation of Wood Packaging Material in International</u> <u>Trade (2009)</u>. These requirements are detailed in 7 CFR 319.40, <u>Foreign Quarantine Notices</u>. This standard requires WPM used in international trade to be treated. The approved treatments are:
 - (1) Heat treatment to a minimum wood core temperature of 56° C (133° F) for a minimum of 30 minutes.
 - (2) Fumigation with methyl bromide.

NOTE: The DoD does not recommend using this option.

- (3) Heat treatment using dielectric heating.
- b. The compliant WPM also must be marked with the International Plant Protection Convention (IPPC) logo, Figure 208-5.
- c. Additional information on WPM requirements can be found at: http://www.aphis.usda.gov/wps/portal/aphis/home and the American Lumber Standard Committee, Inc. Web page, http://www.alsc.org/.
- d. All DoD personnel handling, using, managing, or auditing WPM are required to complete certification training. Training can be found at https://tarp.navsup.navy.mil/wpm.

NOTE: A CAC is required.

L. BLOCKING, BRACING, DUNNAGE, AND SHORING FOR AIRLIFT CARGO

- 1. Blocking and Bracing. Blocking and bracing is used to secure material in a container, on a skid, or in a conveyance (e.g., truck or railcar). Blocking is the use of cut pieces of dimensional lumber, typically fastened to the top deck of the structure or inside a container. Blocking is used to provide a railing around the edge of the product to block the product in place to prevent shifting from side to side or front to back during transit. Blocking also refers to the use of wedges or chocks to prevent the inadvertent shifting of wheeled cargo in transit. Bracing prevents the lateral movement of the product within the container. Braces are secured to the interior walls and at times to the inside top of the container.
- 2. <u>Dunnage</u>. Dunnage is loose packaging material used to secure freight during transportation. Dunnage can be used to keep product away from container walls, to separate products, as a void fill, to reduce shifting and to minimize abrasion. Specialized dunnage for certain shipments (usually in a pre-assembled kit form) must be returned to the origin shipper.
- 3. Shoring. Shoring refers to the protection of the conveyance (normally aircraft) by using materials to respond to floor limitations (pounds per square inch [PSI]) or clearance limits. Standard sized lumber and plywood are both used to shore aircraft loads. Shoring is used to protect the aircraft floor, distribute the cargo load over a larger area of aircraft floor (and substructure), and, on occasion, to reduce the ramp-angle during vehicle loading (see Military Standard 1791, Designing for Internal Aerial Delivery In Fixed Wing Aircraft). The shipper is responsible for any required shoring when not provided by the APOE or airlift unit. Equipment will be designed to minimize the requirements for shoring to limit the logistics burden during air movement and minimize the volume of solid waste generated. The shipper is responsible for any required specialized shoring IAW technical order shipment instructions when not provided by the APOE or airlift unit. The following types of shoring may be required for airlift:

- a. Approach shoring (step-up shoring). Approach shoring is used to reduce the ramp angle that a vehicle must traverse during aircraft on/offloading. Reduction of the ramp angle becomes necessary to avoid interference problems where there are minimal underside, overhead, or overhang clearances. Approach shoring requires large amounts of lumber and is not an acceptable alternative to designing to have adequate clearances.
- b. Floor protection shoring. Shoring that is required to protect the aircraft ramps and cargo compartment floor from damage during on/offloading and flight of tracked vehicles or vehicles with wheels that have lugs, cleats, studs, metal rolling surfaces, or small diameters.
- c. Parking shoring. Shoring that is required under the wheels or tracks of vehicular cargo prior to loading to reduce PSI exertion on the aircraft floor by increasing the wheel or track contact area.
- d. Rolling shoring. Shoring that is required to distribute weight on the cargo floor during on/offloading.
- e. Sleeper shoring. Sleeper shoring is used to prevent the movement of a vehicle due to gust and flight maneuver load conditions where tires or suspension system cannot withstand these loads without failure or depression producing slack in tie-down devices. This type of shoring is placed between the aircraft floor and a structural part of the vehicle (e.g., frame).



This 2D symbol contains data for the MSL, TCMD, and 10 supply line items.

Figure 208-1. Military Shipping Label, Generic

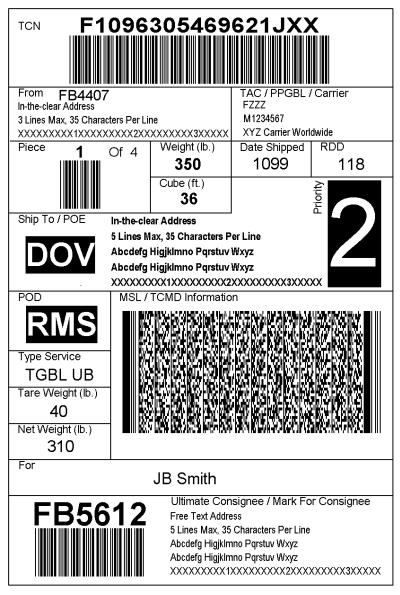


Figure 208-2. Military Shipping Label, Personal Property

When the capability exists, add TTN data to Unit Move MSL 2D bar code symbol.

TCN AWS1EAA\$0D00340XX



Figure 208-3. Military Shipping Label, Unit Move

MILITARY SHIPMENT LABEL	F	orm Approved. OMB No. 0704-0188
TRANSPORTATION CONTROL NUMBER		2. POSTAGE DATA
3. FROM		4. TYPE SERVICE
5. SHIP TO/POE		6. TRANS PRIORITY
7. POD		8. PROJECT
9. ULTIMATE CONSIGNEE OR MARK FOR	10. WT. (This pie	ce) 11. RDD
	12. CUBE (This p	iece) 13. CHARGES
	14. DATE SHIPPE	D 15. FMS CASE NUMBER
	16. PIECE NUMBI	R
	17. TOTAL PIECE	s

DD FORM 1387, JUL 1999

PREVIOUS EDITION IS OBSOLETE.

When the capability exists and when completing a DD Form 1387, place the TTN in Box 1 immediately below the TCN. Print "TTN:" in front of the TTN (i.e., TTN: 1234567890ABCDEFG).

NOTE: The DD Form 1387 does not have sufficient space for the required 2D symbol. This form will be used only for DoD contingency operations where manual entry is the only means available to document DTS shipments.

Figure 208-4. DD Form 1387, Military Shipment Label

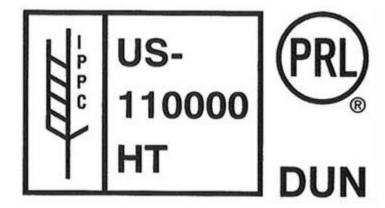


Figure 208-5. Sample IPPC Certification Mark as Applied by a Commercial Activity

The example in <u>Figure 208-5</u> describes the mark applied to dunnage. The DoD Components are only authorized to use the "DoD" as the DoD trademark when self-certifying. The marking "DUN" is used strictly for dunnage. Previous versions of the DoD self-certification markings may be used until the marking device becomes worn and no longer provides a clear mark.



Figure 208-6. Example of DoD "Pest Free" Certification Marking

Certification and application of the DoD "Pest Free" Certification Marking (see Figure 208-6) is authorized if the material successfully passes the established moisture and visual inspection standards and has a valid date of pack prior to December 31, 2007. The DoD "Pest Free" certification mark will display the letters "DoD," the words "Certified Pest Free," and the DoDAAC of the packaging or shipping activity. The DoD Components are only authorized to use "DoD" as the DoD trademark when self-

certifying. No extraneous markings are authorized. The DoDAAC provides identification (see <u>Figure 208-7</u>).

(a)¶ (b)¶ (c)¶ (d)¶ (e)¶



Figure 208-7. Example of DoD Permanent Mark Applied by an Authorized DoD Activity

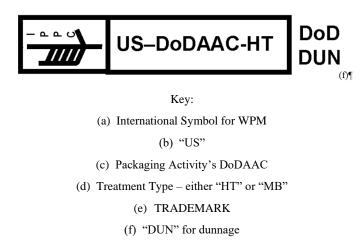


Figure 208-7. Example of DoD Permanent Mark Applied by an Authorized DoD Activity (Cont'd)



Figure 208-7. Example of DoD Permanent Mark Applied by an Authorized DoD Activity (Cont'd)

The ISPM No. 15 certification mark is applied when the DoD Components, self-certified IAW this Manual or using an accredited HN National Plant Protection Organization (NPPO) WPM service provider, assemble or build WPM IAW International Standards for Phytosanitary Measures No. 15 (also known as ISPM No. 15), Regulation of Wood Packaging Material in International Trade, 2009, (http://www.timcon.org/) recognized USDA APHIS, or HN NPPO recognized programs. Certified wood procured commercially and the containers, pallets, etc., constructed from that wood will display the ISPM No. 15 certification mark. Additional guidance may be found in DoD 4140.65-M.

27. ADDITIONAL DATA	26. RIC (4-6) UI (23-24) QTY (25-29) CON CODE (71) DIST (55-56) UP (74-80)	STO	ATIONAL CK NO. & O (8-22)	EIPT 2	4. DOCU & SUI	MENT N FFIX (30			CE FROM	4
	O. (,									, 2021/2020
									QUANTITY	
									SUPPLE- MENTARY - ADDRESS G	700000000000000000000000000000000000000
									TION JECT	1 3
									-20.00 -20.00	
									m⊣>0 <0>	
									©<0 0Z00 ⊸0≤	
		22. RECEIVED BY	18. TY CONT	17. ITEM NOMENCLATURE	16. FREIGHT CLASSIFICATION NOMENCLATURE	10, QTY, REC'D	5. DOC DATE		DOLLARS	
	, :	PA AB	19. NO CONT	ENCLATURE	CLASSIFICA	11.UP	6. NMFC		CTS	Т
			4	,	TION NOME	12. UNIT			DOLLARS	
			20. TOTAL WEIGHT		NCLATURE	UNIT WEIGHT	7. FRT RATE	*	9	
			WEIGHT			13. UNIT CUBE		4. MARK FOR		
		23. D.	21. TC	:			8. TYPE CARGO			
		ATE RECEIVE	TAL CUBE				90			
		23. DATE RECEIVED	21. TOTAL CUBE			14. UFC 15. SL	90			

Figure 208-8. DD Form 1348-1A, Issue Release/Receipt Document

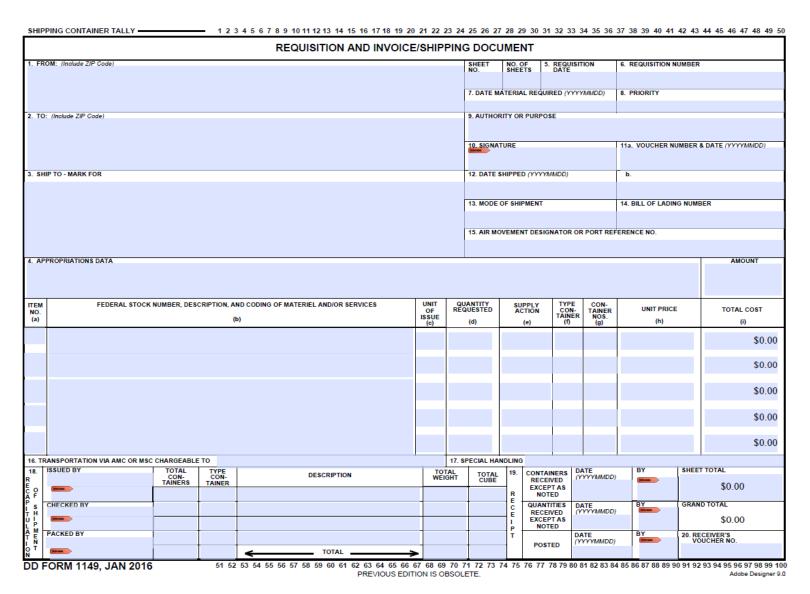


Figure 208-9. DD Form 1149, Requisition and Invoice/Shipping Document

	REQUISITION AND INVOICE/	J 1 114G DOC	CINEINI (CI	onunuauon S	neerj			
IEET NO.	NO. OF SHEETS 6. REQUISITION NUMBER	11a. VOU	CHER NUMBER A	ND DATE			b. VOUCHER NUMBER A	AND DATE
EM D.	FEDERAL STOCK NUMBER, DESCRIPTION, AND CODING OF MATERIEL ANDIOR SERVICES	UNIT OF ISSUE	QUANTITY REQUESTED	SUPPLY ACTION	TYPE CON- TAINER	CON- TAINER NOS.	UNIT PRICE	TOTAL COST
1)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)
								\$0
								\$(
								\$(
								\$(
								\$0
								\$
								\$6
								\$(
								\$(
							SHEET TOTAL	\$

Figure 208-9. DD Form 1149, Requisition and Invoice/Shipping Document (Cont'd)

	RE	QUEST FOR	ISSUE/TRANSF	SUE/TRANSFER/TURN-IN 1. (X one) ISSUE TRANSFER TURN-IN 2. DELIVERY DA (YYYYMMDD)								
3. TO: a. LOCATION b. CUSTODIAN CODE:								ENT NUMBE	R	8. PRIORITY		
4. FROM	vi: a. LOCATIO	N		b. CUSTODIAN CODE:	6. ACC	OUNTING A	ND FUNDIN	G DATA				
9. END IDEN	ITEM TIFICATION:	a. NAME AND	MANUFACTURER			b. MODEL	-	c. SERIAL I	NUMBER		d. PUBLICATION	NC
(1) ITEM NO.	AS-	2) SET D	DE	(3) ITEM SCRIPTION		(4) STOCK NUMBER	ł	(5) UNIT OF ISSUE	(6) REQUEST QUANTITY	(7) RECEIVED QUANTITY	(8) UNIT PRICE	(9) TOTAL COST
												0.00
												0.00
												0.00
												0.00
												0.00
												0.00
												0.00
												0.00
												0.00
												0.00
								TOTAL:				
		a. SIGNATURE	b. DATE	11. DELIVERED BY: a.			b. DATE			a. SIGNATU	JRE	b. DATE
DD FO	RM 1150, D	EC 2011		PREVIOUS EDITION	ON MAY B	BE USED.		Page 1	of F	Pages	Dagat	Adobe Professional 8.0

Figure 208-10. DD Form 1150, Requests for Issue/Transfer/Turn-In

Table 208-1. ICPs

Table 200-1. 1C13						
Agency	DSN Telephone	DSN FAX				
AIR FORCE						
AFSC Oklahoma City ALC, Tinker AFB OK	884-2978	884-0004				
AIR FORCE AFSC Ogden ALC, Hill AFB UT	777-4495	777-5161				
AFSC Warner-Robins ALC, Robins AFB GA	468-3892	468-0319				
ARMY						
TACOM/ARDEC	793-6164	793-8204				
CECOM (AMSEL-LC-LEO-E)	992-2616	992-8759				
AMCOM (AMSAM-MMC-MM-DP)	746-2526	788-2521				
TACOM (AMSTA-TR-E/PKG)	786-5286	786-7788				
DLA						
DLA Customer Support Network	877 352-2255					
DSCC-VSP	850-8774	850-1901				
DSCP-ITD (General and Industrial)	444-3776	444-7500				
DSCR-RZS	695-4454	695-4392				
DSCP-MSCBP (Medical)	444-4189	444-8139				
DSCP-HROS (Subsistence)	444-5353	444-9043				
DESC-DO	800 268-7633					
MARINE CORPS						
LOGCOM Distribution Management Center	567-8653/6786	567-7583				
-	307-0033/0700	301-1303				
NAVY						
NAVSUP WSS (Code N241)	442-2183	442-4965				
NAVSUP WSS (Code N242)	430-5520					
NAVSUP LOC (CODE 413.31	430-3142	430-8603				
NAVSUP LOC -AMMOPAC	735-8506	735-8505				

Table 208-2. Instructions for Completing the MSL

Table 208-2. Instructions for Completing the MSL					
DD Form 1387 Block No.	SUGGESTED BLOCK TITLE	MSL DATA STRUCTURE			
	Da	ata Description			
		= 0001 p.1017			
Block 1	Title: TCN	Data: 17 characters (Code 39 standard characters A to Z, 0 to 9, and \$) and Code 39 bar code. Do not use the extended Code 39 character set (i.e., full American Standard Code for Information Interchange).			
In-the-clear TCN t	ext and linear bar code using 1/2-i	nch high Code 39 format.			
Block 2	Title: TAC	Data: Four characters			
Leave blank if neit	ther apply.				
a. Trans	portation Account Code (TAC) is a	pplicable to shipments moving by the DTS.			
b. For m	etered mail. attach the stick-on me	etered postage to or near this block.			
	ermit mail, enter the Service/Agenc				
=	rst Class Mail	y mail additionzation, for example			
	estage and Fees Paid				
	efense Logistics Agency				
Pe	ermit No G-53				
Block 3	Title: From	Data: Three lines of 35 characters			
The consignor DO	DAAC/CAGE and in-the-clear add	ress. For mail, include the ZIP code.			
Block 4	Title: Type Service	Data: Clear text not limited but may be coded as no more than 10 characters in the 2D symbol.			
the-clear text may Data", "Transporta	be derived from the Method or Ty ation Method", and "Display Data" f	, TGBL UB, DPM HHG). Will be Blank for unit move. The in- pe Code at https://trdmws.maf.ustranscom.mil/ : select "DTR from the Action Legends box for the generic MSL or from the x L, Paragraph I) for the Personal Property MSL.			
Block 5	Title: Ship To/POE	Data: Three characters and/or Five lines of 35 characters			
	ar address or the three-digit air/wa erseas mail, include the Postal Cor	ter POE code and its in-the-clear address. For mail, include the ncentration Center code.			
Block 6	Title: Trans Priority	Data: One digit			
	es tall. Will be blank for unit move.				
Doid text 3/4 inche	es tail. Will be blank for unit move.				
Block 7	Title: POD	Data: Three characters			
		classified unit move. In-the-clear location name may be			
Block 8	Title: Project	Data: Three characters			
	er project code or blank.				
The angle of a factor	z. p. zject code c. Marini				
Block 9	Title: Ultimate Consignee/Mark For	Data: Code 39 bar code and five lines of 35 characters			
The ultimate cons	•	-clear address and DODAAC or MAPAC (see Appendix E)			
linear bar code us	ing 1/2-inch high Code 39 format.	Blank for classified unit move.			

DD Form 1387 Block No.	SUGGESTED BLOCK TITLE	MSL DATA STRUCTURE					
Block 10	Title: Weight	Data: Digits not limited as clear text but may be coded as no more than five characters plus an optional two character unit of measure suffix in the 2D symbol.					
Actual gross weigh fill.	Actual gross weight (numeric value of this piece) with unit of measure. Round to next whole digit and do not zero fill.						
Block 11	Title: RDD	Data: Three characters					
Three-digit code or	blank. Blank for classified unit mo	ve.					
Block 12	Title: Cube	Data: Digits not limited as clear text but may be coded as no more than four characters plus an optional two-character unit of measure suffix in the 2D symbol.					
Cube (numeric valu	ue of this piece) with unit of measur	e. Round to next whole digit and do not zero fill.					
Block 13	Title: Charges	Data: Blank					
No known requirent one piece of the sh		cument FMS case CONUS inland freight charges on number					
Block 14	Title: Date Shipped	Data: Clear text not limited but must be coded as four characters (YDDD) in the 2D symbol.					
	or example YDDD, YYYYDDD, or Defrom Appendix RR.	DD-MMM-YYYY). Will be Blank for unit move. Do not use the					
Block 15	Title: FMS Case Number	Data: Three characters					
Extracted from sup	ply/shipping documents or blank.						
Block 16	Title: Piece Number	Data: Code 39 bar code and digits not limited as clear text but may be coded as no more than four characters in the 2D symbol.					
partial shipment un not be renumbered label only the Pie in the Code 39 bar	uit and a linear bar code using 1/2-ir I. Piece Number may be expressed ece Number has a Code 39 bar cod code.	of the cargo documented by the TCN for this shipment unit or nch high Code 39 format. Do not zero fill. A split shipment will d as "Piece Number of Total Pieces" to save space on the e; the word "of" and the total number of pieces are not shown Data: Digits not limited as clear text but may be coded as					
		no more than four characters in the 2D symbol. by the TCN for this shipment unit or partial shipment unit. Do					
not zero fill. A split shipment will not be renumbered. Total Pieces may be expressed as "Piece Number of Total Pieces" to save space on the label—the Total Pieces value is not shown in the Piece Number Code 39 bar code.							

Table 208-3. Asset Detail

CONTENT-LEVEL DETAIL

Asset Detail.

The minimum data elements required to describe the physical characteristics of a single asset and the characteristics that identify that asset are:

- ✓ National Stock Number (NSN)
- ✓ Nomenclature/Description
- ✓ Model Number
- Condition Code
- Serial Number/Bumper Number
- ✓ Line Item Number (LIN)/Package Identification (PKGID)
- ✓ Ammunition/Explosives Lot Number
- Department of Defense Identification Code (DODIC)
- Commodity Class of Supply (e.g., I, II, III)

Cargo Detail

Minimum data elements necessary to provide cargo detail for each shipment unit are:

- ✓ Requisition Document Number
- Required Delivery Date (RDD) or expedited shipment and handling codes
- Project Code
- Asset (item) Quantity
- ✓ Unit of Issue (U/I)
- ✓ 'From' Routing Indicator Code (RIC)
- Shipment Transportation Control Number (TCN) – for single shipment unit
- ✓ Intermediate TCN for a multi-level consolidated shipment
- Conveyance (lead) TCN for a consolidated shipment
- Commercial Carrier Shipment Tracking Identifier
- ✓ Transportation Priority
- ✓ Sender (Consignor) DODAAC/CAGE Code
- ✓ Receiver (Consignee) DODAAC
- ✓ Ship Date
- ✓ Port of Embarkation (POE) Code
- ✓ Port of Debarkation (POD) Code

- Container Number (e.g., owner's marked number to include owner code, serial number, and check digit (no special symbols)
- ✓ Shipment Piece Number
- ✓ Shipment Piece Weight
- ✓ Shipment Piece Cube
- ✓ Shipment Total Pieces✓ Shipment Total Weight
- ✓ Shipment Total Cube
- Shipment rotal cube
- ✓ Outsize dimension(s) (I/w/h over 84 in)
- Commodity Code (air/water)
- ✓ Special Handling Code (air/water)
- ✓ Water Type Cargo Code
- ✓ Unit Identification Code (UIC)
- ✓ Unit Line Number (ULN)
- ✓ Operation/Exercise Name
- Hazardous Material (HAZMAT) Shipment Descriptors as applicable (including ammo and explosives), United Nations Identification Number (UNID), Class or Division Number, Net Explosive Weight (NEW), Compatibility Group.

Table 208-4. TCMD Detail Elements That Are in Addition to Asset and Cargo Detail

TCMD Document ID Code		Private Owned Vehicle Model Year
Container Number Code		Private Owned Vehicle Make
Federal Supply Classification		Personal Property Owner Name
Short Shelf Life Code		Personal Property Owner Grade
Air Dimension Code		Personal Property Type Code
Mode/Method Code		Net Weight of DPM Shipment
Type Pack Code		Standard Carrier Alpha Code
Estimated Time to Arrive Code (at POE)		Private Owned Vehicle License State
Transportation Account Code (TAC)		Private Owned Vehicle Plate Number (last 5)
Courier Transfer Station (CTS) Code		Private Owned Vehicle Color
CTS and POE Collocated Indicator		Personal Property Civil Address
ISO containers Ownership Code		Travel Order Number
Van Length		Travel Order Issuing Organization
Consignee Distribution Code		Travel Order Accounting Disbursing Station
Total Shipment Units in Van		Not Otherwise Specified Cargo Description
Capacity (cube (ft)) of Van		Liquor Type
ISO containers Contents – Pieces		Liquor Bottle Size
ISO containers Contents – Weight (lb)		Liquor Bottles per Case
ISO containers Contents – Cube (ft)		Cigarette Cartons per Case
ISO containers Owner Name		National Motor Freight Classification
ISO containers Origin ZIP Code		Transportation Commodity Code Description
Van Temperature Range		Classified Shipment Container Number
Van Length Ordered		Classified Shipment Seal Number
Van Seal Number		TGBL Name of Origin Carrier
Van Second Seal Number	_	TGBL Number
Van Second Seal Applier DODAAC		Miscellaneous Remarks
Van Ocean Carrier Code		Missile Serial Number
Number of Beam Assemblies in Van	_	
Stop-off Number and DODAAC		Clear Text Address for Household Goods
Stop-off Consolidation Code		Hazardous Material (HAZMAT) Shipment
Basic Issue Item (BII) Pieces		Descriptors as applicable (including ammo and explosives): Proper Shipping Name,
Outsize Pieces with Dimensional Data		Technical Name, Reportable Quantity
Outsize Weight (lb) of 1 Piece		indicator, Waste indicator, Limited Quantity
Outsize Cube (ft) of 1 Piece		indicator, Cargo Aircraft Only indicator,
Round Count (ammo)		Toxic Inhalation Hazard Zone indicators,
Lot Number – Pieces		Total Quantity of Described Material
Lot Number – Weight (lb)		(pieces, type pack, weight or volume),
Lot Number – Cube (ft)		Classification, Security Risk Category,
Vehicle Model Year		Protective Service requirements, Packed
Vehicle Model Make		Date statement (before Jan 1990), Packaging Exemption or Waiver number
 		Exemption of warver number