Logistics

Army In-Transit Visibility

Headquarters
Department of the Army
Washington, DC
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SUMMARY of CHANGE

AR 700-80 Army In-Transit Visibility

This new Department of the Army regulation, dated 24 September 2008--

- o Defines Headquarters and Army Command, Army Service Component Command, and Direct Reporting Unit responsibilities (para 1-4).
- o Explains the scope and business processes for effective implementation of intransit visibility capabilities throughout the Army (paras 2-1, 2-2a-c, and 3-1).
- o Articulates the Army policy to contribute to force visibility and asset visibility in order to track the identity, status, and location of Army unit and nonunit cargo, passengers, patients, and personal property from origin to destination across the range of military operations (paras 2-1, 3-2, and 3-5).

Army Regulation 700-80

Effective 24 October 2008

Logistics

Army In-Transit Visibility

By Order of the Secretary of the Army:

GEORGE W. CASEY, JR. General, United States Army Chief of Staff

Official:

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History. This publication is a new Department of the Army regulation.

Summary. This regulation prescribes policies, responsibilities, and standards for all organizations and activities originating or receiving materiel and/or forces to ensure effective in-transit visibility to enable positive pipeline control within the transportation and distribution systems.

Applicability. This regulation applies to the Active Army, the Army National Guard/Army National Guard of the United

States, and the U.S. Army Reserve, unless otherwise stated.

Proponent and exception authority. The proponent of this regulation is the Deputy Chief of Staff, G-4. The proponent has the authority to approve exceptions or waivers to this regulation that are consistent with controlling law and regulations. The proponent may delegate this approval authority, in writing, to a division chief within the proponent agency or its direct reporting unit or field operating agency, in the grade of colonel or the civilian equivalent. Activities may request a waiver to this regulation by providing justification that includes a full analysis of the expected benefits and must include formal review by the activity's senior legal officer. All waiver requests will be endorsed by the commander or senior leader of the requesting activity and forward through their higher headquarters to the policy proponent. Refer to AR 25-30 for specific guidance.

Army management control process. This regulation does not contain management control provisions.

Supplementation. Supplementation of

this regulation and establishment of command and local forms are prohibited without prior approval from the Deputy Chief of Staff, G-4 (DALO-FP), 500 Army Pentagon, Washington, DC 20310–0400.

Suggested improvements. Users are invited to send comments and suggested improvements on DA Form 2028 (Recommended Changes to Publications and Blank Forms) directly to the Office of the Deputy Chief of Staff, G–4 (DALO–FP), 500 Army Pentagon, Washington, DC 20310–0500.

Distribution. This regulation is available in electronic media only and is intended for command levels C, D, and E for the Active Army, the Army National Guard/Army National Guard of the United States, and the U.S. Army Reserve.

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Glossary

Chapter 1 Introduction

1-1. Purpose

This regulation sets policy, responsibilities, and standards for implementation of the Army In-Transit Visibility (ITV) capability. The ITV is a critical component of force visibility and asset visibility (AV), providing commanders the information needed to conduct operations. The Department of Defense (DOD) definition of ITV is the ability to track the identity, status, and location of DOD units, and nonunit cargo (excluding bulk petroleum, oils, and lubricants) and passengers; patients; and personal property from origin to consignee or destination across the range of military operations. This regulation proceeds from this definition.

1-2. References

Required and related publications and prescribed and referenced forms are listed in appendix A.

1-3. Explanation of abbreviations and terms

Abbreviations and special terms used in this regulation are listed in the glossary.

1-4. Responsibilities

- a. The Assistant Secretary of the Army for Acquisition, Logistics and Technology (ASA(ALT)), through the Program Executive Office, Enterprise Information Systems, Product Manager (PM), and Joint Automatic Identification Technology (JAIT), will—
- (1) Provide the procurement and technical expertise across the Armywide systems that are essential to ITV and ensure these systems are integrated with Joint and combined AV systems.
- (2) Monitor the ITV servers and notify shippers and other activities of system compatibility/discrepancy issues to ensure compliance with DOD and this policy.
- (3) Manage ITV AIS and automatic identification technology (AIT) hardware peripherals, components, and software to ensure compatibility.
- (4) Establish, monitor, and maintain AIS/AIT training programs, in conjunction with the Training and Doctrine Command (TRADOC), within respective commands to include training on satellite communications and wide-area network (WAN) capability at all nodal locations, including unit level, to achieve ITV.
 - (5) Maintain visibility of AIT interrogator/reader devices positioning worldwide.
- (6) Coordinate with contracting agencies to ensure compliance with Defense Federal Acquisition Regulation Supplement (DFARS).
 - b. The Deputy Chief of Staff, G-1 (DCS, G-1) will—
 - (1) Establish the procedures for collecting personnel data to feed AIS.
 - (2) Ensure personnel tracking in support of total force accountability.
- (3) Provide guidance for, and maintain visibility of, Army personnel distribution/redistribution in accordance with priorities established by the Deputy Chief of Staff, G-3/5/7 (DCS, G-3/5/7).
 - c. The DCS, G-3/5/7 will-
- (1) Coordinate and champion the development of command and control and decision support applications and support AITs to enable responsive and agile ITV processes.
- (2) Ensure all Army-level deployment/redeployment guidance requires unit deployment data for cargo and passengers as specified in DOD 4500.9–R, Part III.
 - (3) Establish reporting procedures for force tracking.
 - (4) Use ITV information to facilitate reset in the Army Force Generation process.
- (5) Lead coordination with U.S. Army Force Management Support Agency (USAFMSA); DCS, G-4; U.S. Army Forces Command (FORSCOM); U.S. Army Materiel Command (AMC); and TRADOC for all ITV force programming issues such as table of organization and equipment (TOE); basis of issue plans (BOIPs); fielding plans; equipment funding; and other force structure issues.
 - d. The Deputy Chief of Staff, G-4 (DCS, G-4) will-
 - (1) Provide the overarching standards and guidelines to implement Servicewide ITV.
 - (2) Ensure Army ITV policy meets DOD and Joint guidance and supports Force Visibility and AV.
 - (3) Serve as the Army's functional proponent for AIT in support of ITV.
- (4) Provide centralized management to synchronize and coordinate Army visibility requirements and processes with current and emerging AIS/AIT in order to provide reliable ITV.
- (5) Develop ITV-enabling business practices and policies to support established DOD policy for AIT and individual unique identification (IUID) and the method of identifying requirements, allocations, and cost expenditures against respective systems, including the identification of nonsystem specific requirements.

- (6) Work with United States Transportation Command as the distribution process owner to ensure Army AIT business processes are synchronized with ITV and AIT policies.
- (7) Coordinate DOD 4500.9–R updates with AMC, the Army representative on the DOD 4500.9–R Oversight Working Group, and the Action Officer Working Group as identified in DOD 4500.9–R.
 - e. The Chief Information Officer, G-6 will—
 - (1) Establish policy, procedures, and standards for information management processes that support ITV.
- (2) Ensure seamless information network connectivity and capabilities at installations, garrisons, and expeditionary forces operational locations to support ITV.
- (3) Develop the Armywide command, control, communications, and computers and information technology standards that seamlessly integrate ITV business processes in the Army Enterprise Infrastructure.
 - f. The Deputy Chief of Staff, G-8 (DCS, G-8) will-
 - (1) Provide necessary funding as required by the DCS, G-3/5/7.
- (2) Ensure all Army-level disposition instructions include the requirement for units shipping equipment to comply with guidance as specified in DOD 4500.9–R, Part III.
- (3) Oversee and manage the management decision package (MDEP) for AIT/radio frequency identification (RFID) funding (see para 3–3 for more information).
 - g. The Commander, USAFMSA will—
- (1) Provide support, analysis, and discipline for ITV related (personnel, materiel, resource and force managers) plans and decisions.
 - (2) Document manpower and equipment requirements and authorizations for the Army using an integrated process.
 - h. The Commander, FORSCOM will-
 - (1) Establish ITV policy and procedures for-
 - (a) Ensuring compliance with this policy and guidance.
 - (b) Unit movement reporting, tagging and labeling of unit equipment.
- (2) Develop accurate source data in deployment AIS for use in time-phased force deployment data (TPFDD) development and refinement, ensuring that the appropriate AIT is applied to unit equipment and supplies and reporting information through AIS to enable ITV.
 - (3) Ensure units have the appropriate AIS/AIT to conduct unit moves in accordance with this policy.
 - (4) Provide interrogator location to ASA(ALT).
 - i. The Commander, AMC will-
 - (1) Incorporate ITV procedures into AMC business processes.
- (2) Maintain AMC managed installation and garrison AIS/AIT related hardware, software, supplies, and infrastructure to support deployment and sustainment operations.
- (3) In concert with the PM-JAIT, ensure Army depots obtain, install, operate, and maintain a sufficient number of interrogators to capture ITV data.
 - (4) Ensure vendors comply with the DFARS in relation to this policy.
- (5) Ensure Web-enabled Logistics Integrated Database and Logistics Information Warehouse data are integrated with GTN (or subsequent system).
 - (6) Coordinate DOD 4500.9-R updates relating to ITV with the DCS, G-4.
 - (7) Provide interrogator location to ASA(ALT).
- j. The Commander, Military Surface Deployment and Distribution Command (SDDC), as a component of the AMC will—
- (1) Obtain, install, operate, and maintain a sufficient number of interrogators at Army ports to capture ITV data of deploying forces and sustainment.
- (2) Obtain, install, operate, and maintain a sufficient number of interrogators at other continental United States and outside continental United States (OCONUS) ports to capture ITV data of deployment and sustainment.
 - (3) Ensure vendors provide commercial movement ITV of personal property in accordance with DOD 4500.9–R.
 - (4) Ensure vendors comply with the DFARS in relation to this policy.
 - k. The Commander, TRADOC will—
 - (1) Develop Army ITV training and doctrine consistent with DOD 4500.9-R and this policy.
 - (2) Identify, validate, and assess future ITV enablers.
- (3) Develop TOE, BOIP, and fielding plans in conjunction with the DCS, G-3 to support ITV enablers across the Army.
- (4) Develop ITV-enabling procedures to support established DOD and Army policy for AIT and IUID and the method of identifying requirements, allocations and cost expenditures against respective systems, including the identification of nonsystem specific requirements.
 - l. The Commander, U.S. Army Medical Command will-

- (1) Ensure linkage into joint systems for ITV during the evacuation process for medical evacuation command and control and patient regulation between theater and supporting base hospitals.
- (2) Ensure doctrine and procedures relating to patient and medical supply ITV are in compliance with Joint Pub 4.02.
 - (3) Provide interrogator location to the ASA(ALT).
 - m. Other Army Service Component Commands will-
 - (1) Establish ITV policy and procedures for:
 - (a) Ensuring compliance with Army ITV policy and guidance.
 - (b) Unit movement reporting, tagging and labeling of unit equipment.
- (2) Develop accurate source data in deployment AIS for use in TPFDD development and refinement, ensuring that the appropriate AIT is applied to unit equipment and supplies, and reporting information through AIS to enable ITV.
 - (3) Maintain oversight of the theater ITV program.
 - (4) Develop and implement plans to—
 - (a) Establish and maintain an ITV program to support the theater consistent with this policy.
 - (b) Ensure units have a sufficient quantity of AIT hardware to support deployment/redeployment operations.
 - (c) Obtain, install, and maintain a network of interrogators.
 - (d) Assist deploying/redeploying units in populating tags with data.
 - (e) Provide interrogator location to the ASA(ALT).
 - n. The Commander, U.S. Army Installation Management Command (IMCOM) will-
- (1) Appoint unit account managers within installation and garrison installation transportation offices to manage systems and AIT that support ITV.
 - (2) Establish ITV policy and procedures for-
 - (a) Ensuring compliance with this policy and guidance.
- (b) Planning and coordinating movement of personnel and equipment related to deployment to ensure the ITV capability is present.
- (c) Planning and coordinating movement of personnel and equipment related to sustainment operations to ensure the ITV capability is present.
- (3) Maintain installation and garrison AIS/AIT related hardware, software, and infrastructure managed by the IMCOM to support deployment and sustainment operations. Ensure that installations maintain operational ITV server connectivity so that deploying unit equipment is captured in the ITV system upon movement from the installation to the port of embarkation (POE).
 - (4) Maintain AIS that support ITV of inbound and outbound sustainment cargo.
- (5) Ensure satellite communication channels, WAN infrastructure, frequency bands, and external power requirements support continuous ITV connectivity.
 - (6) Provide interrogator location to the ASA(ALT).
 - o. Installation, garrison, and area support command commanders will-
- (1) Install and maintain AIS/AIT related hardware, software, supplies, and infrastructure to support deployment and sustainment operations.
- (2) Develop plans to support, or coordinate deployment AIS support for, arrival/departure airfield control groups (A/DACG), and other en route-to-POE locations and identify procedures for using deployment AIS in port support activity and A/DACG support missions.
- (3) Ensure unit move data are accurate and forwarded within established time standards as directed in DOD 4500.9–R.
 - (4) Confirm units have properly labeled/tagged their equipment.
- (5) Implement and maintain an installation business process that is supportive of ITV operations throughout the system.
 - (6) Ensure local vendors comply with this policy.
 - (7) Provide interrogator location to the ASA(ALT).
 - (8) To assist units to ensure sufficient tags writing/readers equipment are available to support deploying units.
 - p. Unit commanders will—
 - (1) Incorporate ITV considerations in the unit deployment plan.
 - (2) Ensure the deployment equipment list is current and accurate.
 - (3) Label/tag deploying equipment properly to provide ITV.
 - (4) Ensure Soldiers have a current common access card.
- (5) Ensure accurate source data are fed to deployment AIS and that all unit equipment and supplies are accurately marked by application of the appropriate AIT and shipping labels.
 - (6) Use, account for, recover, and return AIT hardware per supply accountability procedures.

- (7) Track movement of unit equipment throughout deployment via GTN (or subsequent system) and report discrepancies/loss of ITV immediately.
 - (8) Provide interrogator location to the ASA(ALT).
 - q. Unit movement officers will—
- (1) Ensure all unit equipment and cargo have a DD Form 1387, with both linear and 2D bar coding Transportation Control Number (TCN) properly applied, per DOD 4500.9–R, Part II, chapter 208, paragraph G, and chapter 205.
- (2) Use the transportation coordinator's Automated Information for Movements Systems II (TC-AIMS II), or a substitute system if TC-AIMS II is not yet available, to create an accurate deployment equipment list that identifies all personnel, equipment, and supplies assigned to their unit identification code (UIC) or derivative UIC that will deploy.
 - (3) Ensure that data are accurately reflected in the appropriate AIT device and AIS.

Chapter 2 Processes and Procedures

2-1. Policy

As stated in chapter 1 of this regulation, ITV processes and procedures are inherently Joint in scope, and the Army ITV policy must comply with and complement all joint directives. The following section highlights key guidance with which the Army must comply.

- a. System. Department of Defense 4500.9–R designates the GTN as the DOD system for ITV (https://www.gtn.transcom.mil/index.jsp). The Army will ensure integration of AIS/AIT into GTN or the subsequent DOD 4500.9–R designated system.
- b. Radio frequency identification. The RFID technologies are part of the larger suite of AIT that enables accurate and timely capture of actionable logistics data with little reliance on human intervention. The DOD policy focuses on the use of RFID technologies to improve supply chain operations, however employing any and all AIT tools and devices in an integrated strategy to improve overall deployment and distribution processes is the ultimate goal.
 - c. The in-transit visibility vision.
 - (1) Provide near real-time ITV for all classes of supplies and materiel.
 - (2) Provide "in the box" content-level detail for all classes of supplies and materiel.
 - (3) Provide quality, nonintrusive identification and data collection that enables enhanced inventory management.
 - (4) Provide enhanced unit pack-level visibility.
 - d. Source data requirements.
- (1) Content-level detail. Content-level detail for cargo includes those data elements that describe the asset plus the data elements necessary to identify minimally each level of a complete shipment entity.
 - (a) Asset-level detail is the fundamental information necessary to describe an item for content visibility.
- (b) Shipment entity detail describes the accountable characteristics of the included assets, the physical characteristics of the packaged shipment, and the respective handling characteristics of the shipment.
- (c) Required shipment content-level detail data elements for the Army are listed in figure 2–1 and comply with the Under Secretary of Defense (Acquisition, Technology, and Logistics) RFID Policy memorandum, dated 30 July 2004.

Asset level detail
National stock number
Nomenclature/description model number
Unit price
Condition code
Serial number/bumper number
Serial number enterprise identifier (if unique identification (UID) eligible)
Part number (if UID eligible, as applicable)
Item weight
Item cube
Line item number/package identification
Ammunition lot number
Department of defense identification code
Hazardous cargo descriptor codes (to include ammo/hazardous materiel)
Shipment entity detail
Requisition document number
Required delivery date for expedited shipment and handling codes Project code
Asset (item) quantity Unit of issue
'From' routing indicator code (for DOD shipments)
Inventory control point
RIC (for contractor/vendor shipments)
Shipment transportation control number (TCN)
Intermediate TCN - for a multilevel consolidated shipment
Conveyance (lead) TCN - for a consolidated shipment
Commercial carrier shipment tracking identifier
Transportation priority
Sender (consignor) Department of Defense Activity Address Code (DODAAC)/commercial activity/Government
entity code Ship date
Port of embarkation (POE) code
Port of debarkation (POD) code
Shipment total pieces
Shipment total weight
Shipment total cube
Oversize length/width/height
Receiver (consignee) DODAAC
Commodity class
Commodity code (air/water)
Special handling code (air/water)
Water type cargo code
Net explosive weight
Unit identification code
Unit line number
Operation/exercise name
Hazardous material shipping characteristics: United Nations Identification Number

Figure 2-1. Content level of detail

- (2) Passenger-level detail. In accordance with DOD 4500.9–R, Part III, chapter 303, Army passenger manifesting systems and procedures must take into account AR 340–21 and must collect, at a minimum, the information below for each passenger:
 - (a) Passenger name.
 - (b) Rank.
- (c) Social Security number (SSN) or passport number (if a military Family member lacks an SSN or passport number, the sponsor's number will be used).
 - (d) Status (active, reserve, retired, Family member, civilian employee, contractor).
 - (e) The sponsoring military Service, agency, or employer.
 - (f) The name and telephone number of an emergency contact not traveling with the passenger.
- (3) Unit move data elements. Minimum data elements to be collected for a unit move include items (a) through (f) above, plus unit line number, POE, and POD.

2-2. Standards for implementation

The Army is committed to ITV principles and is determined to improve ITV source data timeliness and quality. The Army will leverage technology improvements in both AIT and AIS enablers to ensure best value is attained in each business process.

- a. The standard is to maintain visibility of all movements at every node, and then maintain near real time visibility of all movement from the POD to the receiving unit in theaters of operation; additionally, to link cargo with the distribution platform (pallet, flatrack or container) and prime mover (aircraft, truck, rail, or vessel) through a common operating picture in order to enable positive pipeline control.
- b. These standards apply to all shipments, including vendor shipments to the Army and vendor shipments to vendors in theaters supporting Army missions in accordance with the DFARS. This may be accomplished by use of EDI or other means.
- c. The minimum level of detail for cargo and passengers is outlined in paragraph 2–1. This information must be accessible through AIS and associated with specific shipment information so that a query can be made through GTN (or subsequent system).

Chapter 3 Business Rules

In-transit visibility in support of force visibility and AV is a capability accomplished by leveraging the source data automation systems for ITV shipment documentation and marrying that information with tracking/locating devices. Shipments that are properly documented in the source systems in accordance with the DOD 4500.9–R and linked to the tracking systems provide the war fighter a significant capability to see and influence material and equipment in transit. All participants in the transportation process share the responsibility for establishing and maintaining ITV. The following business rules provide specific guidance regarding how ITV is to be maintained throughout the transportation system.

3-1. Other participants in the transportation system

The Army is dependent upon external agencies or organizations for many aspects of ITV; it is vital that coordination for system and technology insertions occur to ensure ITV capability. The following organizations are pivotal to ensuring ITV capability.

- a. The United States Transportation Command (USTRANSCOM), as the distribution process owner (DPO) and lead proponent for ITV, as well as RFID and related AIT implementation for the DOD supply chain, and as manager of the GTN, manages asset visibility and dynamic control of resources flowing through the Defense Transportation System (DTS) to and from the theater. Additionally, USTRANSCOM, as the DPO, incorporates AIT into the Distribution Portfolio Management architecture and oversees data quality and performance using portfolio management methodology under Defense Business Systems Management Committee oversight.
- b. The Defense Logistics Agency (DLA) provides AIT devices as required on all shipments originated, configured, and or consolidated at DLA activities and DLA prime vendors.
 - c. The General Services Administration (GSA) is a major shipper of sustainment materiel in a theater of operations.
- d. The Army and Air Force Exchange Service (AAFES) is a major shipper of materiel to a theater of operations and uses primarily commercial shipping.

e. Other military Services or Defense agencies (for example, Defense Contract Management Agency) often ship materiel on behalf of the Army.

3-2. In-transit visibility source data development and maintenance

- a. All AV users must develop information to accurately and fully identify items within the appropriate automated system at the earliest possible stage in the distribution pipeline and maintain that information throughout the pipeline. The timeliness and quality of ITV documentation data are as important to supporting the operation as the actual movement of the cargo. This information will be the source for ITV data and will simplify replacement of missing documentation at any node within the process.
 - b. The ITV-enabling information is required for both commercial and military shipments.
- (1) Commercial vendors are required by the DFARS to comply with Military Standard 129P(4) (MIL-STD-129P(4)) and MIL-STD-130M(1), which prescribe specifications and instructions for marking materiel, packaging, and shipping labels with designated AIT media.
- (2) The procuring Service or agency will arrange for vendors to provide ITV and specify this requirement in the contract. This can be accomplished by use of EDI or other means.
- (3) Full container or 463L air pallet OCONUS shipments require active RFID tags using the same criteria as DOD shippers. These requirements are contract specific.
- (4) The DFARS requires vendors to apply passive RFID to shipments and provide advance-shipping notices for all deliveries to DOD locations.
- c. Commercial vendors and carriers will provide ITV information to military ITV systems through EDI transactions. The requirement to provide this information must be included in all commercial contracts that involve shipping of military cargo. This policy requires current commercial movement contracts that are exercising option years be modified to incorporate this requirement.
- d. Each node operator in the transportation system is responsible for ensuring that ITV information for all shipments departing that location is available to the receiving node through the accepted AIT/AIS prior to arrival of that shipment. This information will facilitate planning activities at the receiving node leading to efficient and effective onward movement of the cargo.
- (1) When cargo is reconfigured at any point in the distribution process, the organization that performs the reconfiguration must ensure that appropriate documentation is adjusted to reflect the change and enable continued tracking of the items through AIS.
- (2) When cargo is transshipped from one liner to another, the personnel at the transshipment site are responsible for providing the transshipping information to the ITV systems. This is normally accomplished via EDI transactions.
- e. Once the cargo has entered the transportation system, changes to the cargo configuration will be minimized to optimize the distribution system as well as reduce problems in ITV maintenance.
- f. Single-consignee pallets and containers will be used to the maximum degree. When not feasible, pallets and containers will be built and stuffed in a manner that minimizes reconfiguration of the shipping unit during the distribution process.
- g. Tags that include embedded sensors or security features provide additional ITV capabilities. Sensor and security tags monitor the condition and serviceability, shock, temperature, and humidity of cargo while in transit. These tags will provide an alert when a sensor limit is reached or if the integrity of the shipment is compromised. All shipping activities will apply sensor tags to security and environmentally sensitive material and supplies to assist in controlling cargo and monitoring its readiness while it is in the distribution pipeline. When an alert message is detected, the organization in possession or control of the shipment will physically investigate the cause of the alert and take necessary corrective actions.

3-3. Funding

- a. The cost of implementing ITV is considered a cost of transportation, contingencies, and logistics and, as such, will be funded using operations and maintenance or contingency funds. Funding of ITV supplies such as RF tags and batteries is the cost of the owning unit. In cases where Army Working Capital Fund (AWCF) activities provide the support, these activities will use AWCF cost authority to procure AIT equipment to enable ITV.
- b. If the originating activity is vendor/contractor operated, it is the responsibility of the procuring or contracting activity to provide and maintain sufficient equipment and training to support required ITV capabilities.
- c. The DCS, G–8 will oversee and manage the MDEPs for AIT funding. Efforts will be synchronized with DCS, G–3/5/7; Program Executive Office, Enterprise Information Systems; PM, Transportation Information Systems; and PM J–AIT to ensure that AIT requirements in support of ITV are identified and included in the budget request. This ensures managed expenditures and the effective use of funds to support ITV requirements.

3-4. Equipment property accounting procedures

The receiving activity is responsible for reporting receipt of shipment in the AIS and for returning tags in accordance with established policy per AR 56-4. Accountability and reuse of assets is critical to successful ITV execution.

3-5. Procedures

In-transit visibility begins at the point of origin and ends at the point of use. The source must ensure that all passenger, equipment and sustainment information is accurately annotated in the appropriate AIS. It is essential that the capability to associate this source data with specific shipment information in the transportation system is available. All node operators have a responsibility to ensure that cargo is properly tagged, linked with source data, and processed for ITV. Commercial carriers must transmit EDI reports at points or events designated in their contracts.

- a. Origin to port of embarkation.
- (1) *Unit move*. Commanders must ensure accurate data are submitted to the appropriate AIS for both unit equipment and passengers. Installation Transportation Officers must plan and coordinate the AIT requirements and ensure movement is uploaded into the appropriate AIS/server.
- (2) Sustainment. Shippers must ensure all sustainment cargo is properly marked or tagged in accordance with MIL-STD-129P(4) and MIL-STD-130M(1) and upload information into the appropriate AIS.
- (3) Retrograde. The originating activity must upload retrograde information into the appropriate AIS and tag all materiel prior to departure.
 - b. Ports of embarkation.
- (1) Aerial port of embarkation. The A/DACG is responsible for Army operations at an aerial port of embarkation (APOE). The A/DACG works in coordination with the Air Mobility Command, Contingency Response Group (CRG), which is responsible for airlift operations at the APOE, to ensure effective deployment airlift operations. These units support ITV by ensuring unit cargo and supplies are properly tagged, military shipping labels (MSLs) applied, and the data entered into the appropriate AIS upon arrival at and before departure from the APOE and additionally, ensuring that accurate data are submitted to the appropriate AIS for passengers.
- (2) Seaport of embarkation. The SDDC is the Army's primary seaport of embarkation (SPOE) manager for ports within the Defense Transportation System. The SDDC supports ITV by ensuring unit cargo and supplies are properly tagged MSL applied and the data entered into the appropriate AIS upon arrival at and before departure from the APOE and by ensuring that accurate data are submitted to the appropriate AIS for passengers. As unit equipment and supplies pass through the SPOE gates, tags are read and data are sent to a regional ITV server. When a vessel load is completed, SDDC coordinates with the Military Sealift Command, which reports vessel departure to GTN (or subsequent system). For commercial carrier shipments, the carrier will provide ITV movement data via EDI for transportation events designated in the contract.
 - c. Ports of debarkation.
- (1) Aerial port of debarkation. The A/DACG is responsible for Army operations at the aerial port of debarkation (APOD). The operation is coordinated by the senior logistics commander on the ground. The U.S. Air Force (USAF) CRG supervises the aircraft offload operations. The A/DACG escorts unit equipment to the holding area of the APOD. The A/DACG ensures commanders have properly tagged unit equipment and supplies, processes the equipment into the appropriate AIS, and coordinates with the CRG to ensure the data are transmitted to GTN (or subsequent system) within the allotted timeframe.
- (2) Seaport of debarkation. The SDDC normally serves as the designated port manager at the seaport of debarkation (SPOD) within the DTS and is responsible for maintaining ITV. AIT data are sent to the regional ITV server as unit equipment and supplies pass through the SPOD. SDDC is also responsible to check all AIT for accuracy and repair or replace any tags or labels as needed in order to maintain accurate and timely ITV data. For commercial carrier shipments, the carrier will provide ITV movement data via EDI. ITV is accomplished through coordination with the movement control team (MCT) assigned to the SPOD.
- d. Marshalling area. Unit commanders are responsible for actions at a marshalling area (MA). Units reconfigure equipment, organize convoys, and make other preparations for onward movement to the theater staging base (TSB), or the tactical assembly area (TAA), if no TSB exists. Units ensure their AIT tags contain accurate data and are in good working order before departing the MA. ITV is accomplished through coordination with the MCT assigned to the MA. As units depart the MA, AIT data will be passed to the ITV server. The terminal battalion, working with SDDC, as the port manager, is responsible for performing these same functions for depot-designated equipment and material shipments. For retrograde shipments, SDDC contracts for the performance of these functions.
 - e. Theater operations.
- (1) Theater staging base. The Theater sustainment commander controls the TSB. The area support group provides support services for the daily operations of a TSB. The process of near real-time force tracking as a part of ITV begins here, and Movement Tracking System+ or like system capabilities are enabled at this point. The MCT is responsible to coordinate and track the movement of units from the TSB to the TAA. As units depart the TSB, AIT data are captured through the ITV server for use with AIS.
 - (2) Distribution management center. Within the mobility branch of the Office of the DCS, G-3/5/7 support

operations, the Theater Sustainment Command serves as the distribution management center (DMC) that performs mission planning for deployment and redeployment. The (DMC) then acts as the executive agent for movement control within the theater and manages Title 10 responsibilities for the common user land transportation fleet and recommends theater transportation priorities. As units depart the DMC, AIT data are captured through the ITV server for use with AIS.

- f. Supply support activity or other distribution activities. Supply support activity or other distribution activities are responsible for reporting receipt of cargo and the end of transit.
- g. Receiving unit. The receiving unit must ensure receipt of all shipments and passengers are documented in the appropriate AIS.
- h. Commercial carriers. Commercial carriers must submit a final EDI transaction that indicates delivery and end of transit.

Appendix A References

Section I

Required Publications

AR 56-4

Distribution of Materiel and Distribution Platform Management (Cited in para 3-4.)

DOD 4500.9-R, Part II

Department of Defense Transportation Regulation, Part II, Cargo Movement (Cited in para 1-4.) (Available at http://www.dtic.mil/whs/directives.)

DOD 4500.9-R, Part III

Department of Defense Transportation Regulation (DTR), Part III, Mobility (Cited in paras 1–4, 2–1.) (Available at http://www.dtic.mil/whs/directives.)

DFARS

Defense Federal Acquisition Regulation Supplement (Cited in paras 1–5, 2–2, 3–2.) (Available at www.acq.osd.mil/dpap/dars/dfarspgi/current/index.html.)

Memorandum, the Under Secretary of Defense

Subject: Radio Frequency Identification (RFID) Policy, 30 Jul 04 (Cited in para 2–1.) (Available at http://www.acq.osd.mil/log/rfid/rfid_policy.htm.)

Section II

Related Publications

A related publication is a source of additional information. The user does not have to read a related publication to understand this publication.

AR 340-21

The Army Privacy Program

AR 710-2

Supply Policy Below the National Level

DA PAM 700-85

Automatic Identification Technology (AIT) Integration Guide

DOD 4500.9-R

Department of Defense Transportation Regulation (Available at http://www.dtic.mil/whs/directives.)

DODD 8320.03

Unique Identification (UID) Standards for a Net-Centric Department of Defense (Available at http://www.dtic.mil/whs/directives.)

JP 3-35

Deployment and Redeployment Operations (Available at https://www.dtic.mil/doctrine/nipr_index.html.)

JP 4-02

Health Services Support (Available at https://www.dtic.mil/doctrine/nipr_index.html.)

MIL-STD-130N

Identification Marking of U.S. Military Property (Available at http://assist.daps.dla.mil/quicksearch.)

MIL-STD-129P(4)

Military Marking for Shipment and Storage (Available at http://assist.daps.dla.mil/quicksearch.)

10 USC

Armed Forces (Available at http://www.gpoaccess.gov/uscode.)

Section III

Prescribed Forms

This section contains no entries.

Section IV

Referenced Forms

DA forms are available on the Army Publishing Directorate Web site (www.apd.army.mil). DD forms are available from the OSD Web site (http://www.dtic.mil/whs/directives/infomgt/forms/formsprogram.htm).

DA Form 2028

Recommended Changes to Publications and Blank Forms

DD Form 1387

Military Shipping Label (MSL) (Available at http://www.dtic.mil/whs/directives/infomgt/forms/formsprogram.htm.)

Glossary

Section I

Abbreviations

AAFES

Army and Air Force Exchange Service

A/DACG

arrival/departure airfield control group

AIS

Automated Information System

ΑľΊ

automatic identification technology

AMC

U.S. Army Materiel Command

APOD

aerial port of debarkation

APOE

aerial port of embarkation

AR

Army regulation

ASA(ALT)

Assistant Secretary of the Army for Acquisition, Logistics and Technology

\mathbf{AV}

asset visibility

AWCF

Army Working Capital Fund

BOIP

basis of issue plan

CRG

contingency response group

DCS, G-1

Deputy Chief of Staff, G-1

DCS, G-3/5/7

Deputy Chief of Staff, G-3/5/7

DCS, G-4

Deputy Chief of Staff, G-4

DCS, G-8

Deputy Chief of Staff, G-8

DFARS

Defense Federal Acquisition Regulation Supplement

DLA

Defense Logistics Agency

DMC

distribution management center

DOD

Department of Defense

DPO

distribution process owner

DTS

Defense Transportation System

EDI

electronic data interchange

FORSCOM

U.S. Army Forces Command

GSA

General Services Administration

GTN

Global Transportation Network

IMCOM

U.S. Installation Management Command

ITV

in-transit visibility

IUID

individual unique identification

JAIT

Joint automatic identification technology

MA

marshalling area

MCT

movement control team

MDEP

management decision package

MSL

military shipping label

OCONUS

outside continental United States

\mathbf{PM}

product manager

POD

port of debarkation

POE

port of embarkation

RFID

radio frequency identification

SDDC

Military Surface Deployment and Distribution Command

SPOD

sea port of debarkation

SPOE

sea port of embarkation

SSN

social security number

TAA

tactical assembly area

TAV

total asset visibility

TC-AIMS II

Transportation Coordinator's Automated Information for Movements System II

TCN

transportation control number

TOF

table of organization and equipment

TPFDD

time-phased force deployment data

TRADOC

U.S. Army Training and Doctrine Command

TSB

theater staging base

USAF

U.S. Air Force

USAFMSA

United States Army Force Management Support Agency

USTRANSCOM

United States Transportation Command

WAN

wide-area network

Section II

Terms

Asset visibility (AV)

Provides users with information on the location, movement, status, and identity of units, personnel, equipment and supplies. It facilitates the capability to act upon that information to improve overall performance of DOD logistics practices.

Asset tag

A permanently affixed, data-rich active RIFD tag associated with major pieces of equipment, rolling stock, or other CL

VII items. The data rich elements of this tag should allow it to be used for multiple military purposes that may include, and are not limited to, in-transit visibility, dispatch, inventory control, asset location, log book entries, maintenance management, configuration management and asset identification. The power source for this tag should be operator controlled in order to allow it to be disabled if active operation and signal broadcast would interfere with military operations or security requirements.

Automatic identification technology (AIT)

A suite of tools for facilitating total asset visibility (TAV) source data capture and transfer. AIT includes a variety of devices, such as bar codes, magnetic strips, optical memory cards, and radio frequency tags for marking or "tagging" individual items, multipacks, equipment, air pallets, or containers, along with the hardware and software required to create the devices, read the information on them, and integrate that information with other logistic information. AIT integration with logistic information systems is key to DOD TAV efforts.

Deployment

The relocation of forces and materiel to desired operational areas. Deployment encompasses all activities from origin or home station through destination, specifically including intracontinental United States, intertheater, and intratheater movement legs, staging, and holding areas

Distribution

An official delivery of anything, such as orders or supplies, and the operational process of synchronizing all elements of the logistic system to deliver the "right things" to the "right place" at the "right time" to support the geographic combatant commander.

Distribution pipeline

Continuum or channel through which DOD conducts distribution operations. The distribution pipeline represents the end-to-end flow of resources from supplier to consumer and, in some cases, back to the supplier in retrograde activities.

Distribution system

That complex of facilities, installations, methods, and procedures designed to receive, store, maintain, distribute, and control the flow of military materiel between the point of receipt into the military system and the point of issue to using activities and units.

Electronic data interchange (EDI)

The computer-to-computer exchange of business data in a standardized format between entities.

Force

An aggregation of military personnel, weapon systems, equipment, and necessary support, or combination thereof.

Force tracking

The process of gathering and maintaining information on the location, status, and predicted movement of each element of a unit including the unit's command element, personnel, and unit-related supplies and equipment) while in transit to the specified operational area. (This term and its definition modify the existing term and its definition.)

Force visibility

The current and accurate status of forces; their current mission; future missions; location; mission priority and readiness status. Force visibility provides information on the location, operational tempo, assets and sustainment requirements of a force as part of an overall capability for a combatant commander. Force visibility integrates operations and logistics information and facilitates global force management and enhances the capability of the entire Joint Planning and Execution Community to adapt rapidly to unforeseen events, to respond and ensure capability delivery.

Global Transportation Network (GTN)

The automated support necessary to enable USTRANSCOM and its components to provide global transportation management. The GTN provides the integrated transportation data and systems necessary to accomplish global transportation planning, command and control, and in-transit visibility across the range of military operations. The designated DOD in-transit visibility system provides customers with the ability to track the identity, status, and location of DOD units and nonunit cargo, passengers, patients, forces, and military and commercial airlift, sealift, and surface assets from origin to destination across the range of military operations. The GTN collects, integrates, and distributes transportation information to combatant commanders, Services, and other DOD customers. GTN provides

USTRANSCOM with the ability to perform command and control operations, planning and analysis, and business operations in tailoring customer requirements throughout the requirements process.

In-transit visibility (ITV)

The ability to track the identity, status, and location of DOD units, and nonunit cargo (excluding bulk petroleum, oils, and lubricants) and passengers; patients; and personal property from origin to consignee or destination across the range of military operations.

Level of detail

Within the current joint planning and execution system, movement characteristics for both personnel and cargo are described at six distinct levels of detail. Levels I, V, and VI describe personnel and Levels I through IV and VI for cargo. Levels I through IV are coded and visible in the Joint Operation Planning and Execution System automated data processing. Levels V and VI are used by Joint Operation Planning and Execution System automated data processing feeder systems.

Level I, personnel

Expressed as total number of passengers by unit line number; Cargo, expressed in total short tons, total measurement tons, total square feet, and total thousands of barrels by unit line number; petroleum, oils, and lubricants, expressed by thousands of barrels by unit line number.

Level II, cargo

Expressed by short tons and measurement tons of bulk, oversize, outsize, and non-air transportable cargo by unit line number. Also square feet for vehicles and non self-deployable aircraft and boats by unit line number.

Level III, cargo

Detail by cargo category code expressed as short tons and measurement tons as well as square feet associated to that cargo category code for an individual unit line number.

Level IV, cargo

Detail for individual dimensional data expressed in length, width, and height in number of inches, and weight/volume in short tons/measurement tons, along with a cargo description. Each cargo item is associated with a cargo category code and a unit line number).

Level V, personnel

Any general summarization/aggregation of level VI detail in distribution and deployment.

Level VI, personnel

Detail expressed by name, Service, military occupational specialty, and unique identification number. Cargo, detail expressed by association to a transportation control number or single tracking number or item of equipment to include federal stock number/national stock number and/or requisition number. Nested cargo, cargo that is contained within another equipment item, may similarly be identified. Also called Joint Operations Planning and Execution System level of detail.

License plate tag

A data-light, active, RFID tag that contains only an item-unique number and no content data. This tag is normally associated with military conveyance containers (that is, 463L pallet, 20- or 40-foot shipping container, or Joint military shipping container) and not with prime movers or other major end item equipment.

Node

A location in a mobility system where a movement requirement is originated, processed for onward movement, or terminated.

Nonunit-related cargo

All equipment and supplies requiring transportation to an operational area, other than those identified as the equipment or accompanying supplies of a specific unit (for example, resupply, military support for allies, and support for nonmilitary programs, such as civil relief).

Nonunit-related personnel

All personnel requiring transportation to or from an operational area, other than those assigned to a specific unit (for

example, filler personnel; replacements; temporary duty/temporary additional duty personnel; civilians; medical evacuees; and retrograde personnel).

Positive pipeline control

Ability to view, control, and redirect materiel and/or forces in the transportation and distribution systems to meet the warfighting commander's priorities.

Pipeline

In logistics, the channel of support or a specific portion thereof by means of which materiel or personnel flow from sources of procurement to their point of use.

Radio frequency identification (RFID)

A family of technologies that enables hands-off processing of material transactions for cargo deploying through the Defense Transportation System. RFID provides operators a means to remotely identify, categorize, and locate material automatically within relatively short distances. Data are digitally stored on RFID transponder devices, such as tags or labels. Remote interrogators (located a few inches to 300 feet from the transponder device) electronically retrieve the data via electromagnetic energy (radio or microwave frequency) and send the data to the AIS. The technology is divided into two categories of data storage and retrieval systems, passive and active. Active RFID systems are omni directional and require moderately expensive high-capacity transponder devices. Active devices are effective portable databases and facilitate the rapid transfer of data to AIS with standoff capability. Passive systems generally require line-of-site interrogation of powerless, inexpensive, low-capacity transponder devices. Passive devices are adaptable for use at the item, case, and pallet level.

Radio frequency identification layer

Items/cargo/carriers marked with RFID tags are identified as layers of logistic units in order to identify the type of RFID tag format and data specification that may be required. They are defined as—

- a. RFID layer 0: the item itself with no packaging.
- b. RFID layer 1: the unit pack for an item or similar items (see MIL-STD-129P(4)).
- c. RFID layer 2: the case or transport package (that is, either the external container in a palletized unit load, or a shipping container) (see MIL-STD-129P(4)).
 - d. RFID layer 3: the palletized unit load (that is a loaded warehouse pallet) (see MIL-STD-129P(4)).
- e. RFID layer 4: the freight container that is an article of transport equipment (for example, a shipping container, a 463L System pallet, or a reusable large container)—
 - (1) Of a permanent character and accordingly strong enough to be suitable for repeated use.
- (2) Specially designed to facilitate the carriage of goods by one or more modes of transport, without intermediate reloading.
 - (3) Fitted with devices permitting its ready handling, particularly its transfer from one mode of transport to another.
 - (4) So designed as to be easy to fill and empty.
 - (5) Having an internal volume/capacity of one cubic meter or more.
 - (6) That includes neither vehicles nor conventional packaging.
 - f. RFID layer 5: The movement vehicle/conveyance (for example, truck, plane, ship, train).

Radio frequency identification tag, active

Allows low-level radio frequency signals to be received by the tag and they can generate high-level signals back to the reader/interrogator. Active RFID tags can hold relatively large amounts of data, are continuously powered, and are normally used when a longer tag read distance is desired.

Radio frequency identification tag, passive

Reflects 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.

Redeployment

The transfer of forces and materiel to support another joint force commander's operational requirements, or to return personnel, equipment, and materiel to the home and/or demobilization stations for reintegration and/or out-processing.

Theater of operations

An operational area defined by the geographic combatant commander for the conduct or support of specific military operations. Multiple theaters of operations normally will be geographically separate and focused on different missions.

Theaters of operations are usually of significant size, allowing for operations in depth and over extended periods of time.

Transportation system

All the land, water, and air routes and transportation assets engaged in the movement of U.S. forces and their supplies across the range of military operations, involving both mature and immature theaters and at the strategic, operational, and tactical levels of war.

Section III Special Abbreviations and Terms

This section contains no entries.

USAPD

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