

Army Regulation 700–80

Logistics

Army In- Transit Visibility

**Headquarters
Department of the Army
Washington, DC
30 September 2015**

UNCLASSIFIED

SUMMARY of CHANGE

AR 700-80

Army In-Transit Visibility

This major revision, dated 30 September 2015--

- o Defines Headquarters, Department of the Army; Army command; Army service component command; and direct reporting unit responsibilities (chap 1, section II).
- o Explains the scope and business processes for effective implementation of in-transit visibility capabilities throughout the Army (paras 2-1 and 3-1).
- o Articulates the Army policy for in-transit visibility and contributes to force visibility and asset visibility in order to track the identity, status, and location of Army unit and non-unit cargo, passengers, patients, and personal property from origin to destination across the range of military operations (paras 2-1, 3-3, and 3-6).
- o Identifies minimum essential data elements required to be collected to provide content level detail for unit move shipments, sustainment, and retrograde cargo (para 2-1d(2)).
- o Adds an internal control evaluation (app B).

Logistics

Army In-Transit Visibility

By Order of the Secretary of the Army:

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General, United States Army
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History. This publication is a major revision.

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 and to enable positive pipeline control within the transportation and distribution systems. However, this regulation does not provide instructions and guidance on passengers, patients, and personal property as identified in the overall definition of in-transit visibility. DTR 4500.9–R provides instructions and guidance on passengers, patients, and personal property. Department

of Defense policy on radio frequency identification is now codified in DTR 4500.9–R.

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 forwarded through their higher headquarters to the policy proponent. Refer to AR 25–30 for specific guidance.

Army internal control process. This regulation contains internal control provisions in accordance with AR 11–2 and identifies key internal controls that must be evaluated (see appendix B).

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–FPD), 500 Army Pentagon, Washington, DC 20310–0500.

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 Deputy Chief of Staff, G–4 (DALO–FPD), 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

Section I General

1–1. Purpose

This regulation sets policies, responsibilities, and standards for implementation of the Army in-transit visibility (ITV) capability. ITV is a critical component of force visibility and asset visibility, providing commanders the information needed to conduct operations. The Department of Defense (DOD) defines ITV as the ability to track the identity, status, and location of DOD units, and non-unit 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 is aligned with this definition. However, this regulation does not provide policy on passengers, patients, and personal property as identified in the overall definition of ITV. DTR 4500.9–R provides such guidance on passengers, patients, and personal property.

1–2. References

See appendix A.

1–3. Explanation of abbreviations and terms

See the glossary.

1–4. Responsibilities

See section II of this chapter.

Section II Responsibilities

1–5. Assistant Secretary of the Army (Acquisition, Logistics and Technology)

The ASA (ALT), through the Program Executive Office, Enterprise Information Systems, Product Director Automated Movement and Identification Solutions (PD AMIS), will—

- a. 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 asset visibility systems.
- b. Monitor the ITV servers and notify shippers and other activities of system compatibility and discrepancy issues to ensure compliance with DOD policy and this regulation.
- c. Manage ITV Automated Information System (AIS) and automatic identification technology (AIT) hardware peripherals, components, and software to ensure compatibility.
- d. Maintain visibility of AIT interrogator and reader devices positioned worldwide.
- e. Coordinate with contracting agencies to ensure compliance with the Defense Federal Acquisition Regulation Supplement (DFARS).
- f. Provide the Chief Information Officer/G–6 (CIO/G–6) with the information technology requirements needed to support ITV.

1–6. Chief Information Officer/G–6

The CIO/G–6 will—

- a. Establish policy, procedures, and standards for information management processes that support ITV.
- b. Ensure seamless information network connectivity and capabilities at installations and expeditionary forces operational locations to support ITV.
- c. Develop Armywide command, control, communications, and computers and information technology standards that seamlessly integrate ITV business processes in the Army Enterprise Infrastructure.

1–7. Deputy Chief of Staff, G–1

The DCS, G–1 will—

- a. Establish the procedures for collecting personnel data to feed AIS.
- b. Ensure personnel tracking in support of total force accountability.
- c. Provide guidance for and maintain visibility of Army personnel distribution and redistribution in accordance with priorities established by the Deputy Chief of Staff, G–3/5/7 (DCS, G–3/5/7).

1–8. Deputy Chief of Staff, G–3/5/7

- a. The DCS, G–3/5/7 will—

- (1) Support AIT requirements, initiatives, and efforts to enable responsive and agile ITV processes.
- (2) Ensure all Army-level deployment/redeployment guidance requires unit deployment data for cargo as specified in DTR 4500.9–R, part II.
- (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), Deputy Chief of Staff, G–4 (DCS, G–4), U.S. Army Forces Command (FORSCOM), U.S. Army Materiel Command (AMC), and U.S. Army Training and Doctrine Command (TRADOC) for all ITV force programming issues, such as tables of organization and equipment (TOEs), basis of issue plans (BOIPs), fielding plans, equipment funding, and other force structure issues.
 - b.* The Commander, USAFMSA on behalf of the DCS, G–3/5/7 will—
 - (1) Provide support, analysis, and discipline for ITV related plans and decisions (personnel, materiel, resource, and force managers).
 - (2) Document manpower and equipment requirements and authorizations for the Army using an integrated process.

1–9. Deputy Chief of Staff, G–4

The DCS, G–4 will—

- a.* Under the supervision of ASA (ALT), provide overarching policy and guidelines for implementing Armywide ITV.
- b.* Ensure Army ITV policy meets DOD and Joint guidance and supports force visibility and asset visibility.
- c.* Serve as the Army’s functional proponent for AIT in support of ITV.
- d.* Provide centralized management to synchronize and coordinate Army visibility requirements and processes with current and emerging AIS/AIT in order to provide reliable ITV.
- e.* Under the supervision of ASA (ALT), develop ITV enabling business practices and policies to support established DOD policy for AIT and item unique identification (IUID) and the method of identifying requirements, allocations, and cost expenditures against respective systems, including the identification of nonsystem specific requirements.
- f.* Synchronize Army AIT business processes with ITV and AIT policies by working with the United States Transportation Command (USTRANSCOM) as the Distribution Process Owner (DPO).
- g.* Coordinate DTR 4500.9–R updates with AMC, the Army representative on the DTR 4500.9–R Oversight Working Group, and the Advisory Council Working Group, as identified in DTR 4500.9–R.
- h.* Oversee and manage the management decision package (MDEP) for AIT/radio frequency identification (RFID) in concert with the Deputy Chief of Staff, G–8 (DCS, G–8).

1–10. Deputy Chief of Staff, G–8

The DCS, G–8 will—

- a.* Provide necessary funding as validated requirements by the DCS, G–3/5/7.
- b.* Ensure all Army-level disposition instructions include the requirement for units shipping equipment to comply with guidance as specified in DTR 4500.9–R, part II.
- c.* Oversee and manage the MDEP for AIT/RFID funding in concert with the DCS, G–4 (see para 3–4 for more information).

1–11. The Surgeon General

The Commander, U.S. Army Medical Command on behalf of TSG will—

- a.* Ensure linkage into Joint systems for ITV during the evacuation process for medical evacuation command and control, patient regulation between theater, and supporting base hospitals.
- b.* Ensure doctrine and procedures relating to patient and medical supply ITV comply with JP 4.0.
- c.* Provide AIT interrogator locations to the ASA (ALT).

1–12. Commanding General, U.S. Army Forces Command

The CG, FORSCOM will—

- a.* Establish internal ITV policy and procedures that will—
 - (1) Ensure compliance with this regulation.
 - (2) Ensure unit movement reporting, tagging and labeling of unit equipment.
- b.* 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.
- c.* Ensure units have the appropriate AIS/AIT to conduct unit moves in accordance with this regulation.
- d.* Provide AIT interrogator locations to the ASA (ALT).

1–13. Commanding General, U.S. Army Training and Doctrine Command

The CG, TRADOC will—

- a.* Develop Army ITV training and doctrine consistent with DTR 4500.9–R and this regulation.
- b.* Identify, validate, and assess future ITV enablers.
- c.* Develop TOEs, BOIPs, and fielding plans in conjunction with the DCS, G–3/5/7 to support ITV enablers across the Army.
- d.* Develop ITV enabling procedures to support established DOD and Army policy for AIT and IUID.
- e.* Develop the method of identifying requirements, allocations, and cost expenditures against respective systems, including the identification of nonsystem specific requirements.

1–14. Commanding General, U.S. Army Materiel Command

The CG, AMC will—

- a.* Incorporate ITV procedures into AMC business processes.
- b.* Maintain AMC-managed installation and garrison AIS/AIT related hardware, software, supplies, and infrastructure to support deployment and sustainment operations.
- c.* In concert with the PD AMIS, ensure Army depots obtain, install, operate, and maintain a sufficient number of interrogators to capture ITV data.
- d.* Ensure vendors comply with DFARS as it relates to this regulation.
- e.* Ensure Web-enabled Logistics Integrated Database and Logistics Information Warehouse data are integrated with the Integrated Data Environment/Global Transportation Network Convergence (IGC) and/or subsequent system.
- f.* Coordinate DTR 4500.9–R updates relating to ITV with the DCS, G–4.
- g.* Provide AIT interrogator locations to the ASA (ALT).

1–15. Commanders of Army service component commands and direct reporting units

- a.* Commanders of ASCCs and DRUs will—
 - (1) Establish internal ITV policy and procedures that will—
 - (a)* Ensure compliance with Army ITV policy and guidance.
 - (b)* Ensure 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) Develop and implement plans to—
 - (a)* Establish and maintain an ITV program to support the theater consistent with this regulation.
 - (b)* Ensure units have a sufficient quantity of AIT hardware to support deployment/redeployment operations and 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).
 - (c)* Assist deploying/redeploying units in populating tags with data.
 - (d)* Ensure AIS supports ITV of inbound and outbound sustainment cargo.
 - (e)* Maintain oversight of the theater ITV program.
 - (f)* Provide AIT interrogator locations to the ASA (ALT).
- b.* The CG, Military Surface Deployment and Distribution Command (SDDC) will—
 - (1) Obtain, operate, and maintain a sufficient number of interrogators at Army ports to capture ITV data of deploying forces and sustainment.
 - (2) Obtain, operate, and maintain a sufficient number of interrogators at other continental United States (CONUS) and outside the continental United States (OCONUS) ports to capture ITV data of deployment and sustainment.
 - (3) Ensure vendors comply with DFARS as it relates to this regulation.
- c.* Commanders of units and unit movement officers will—
 - (1) Incorporate ITV requirements in their unit deployment plan.
 - (2) Ensure the organizational equipment list is current and accurate.
 - (3) Label and tag deploying equipment properly to provide ITV.
 - (4) Ensure Soldiers have a current common access card.
 - (5) Ensure accurate source data is 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 the national radio frequency (RF) ITV server, the IGC, or subsequent system and report discrepancies and/or loss of ITV immediately.
 - (8) Provide AIT interrogator locations to the ASA (ALT).
 - (9) Use the Transportation Coordinator’s Automated Information for Movements Systems II to create an accurate

organizational equipment list that identifies all personnel, equipment, and supplies assigned to their unit identification code (UIC) and any derivative UICs.

(10) Ensure data is accurately reflected in the appropriate AIT device and AIS.

Chapter 2 Policy

2–1. Processes

ITV processes are inherently Joint in scope, and the Army ITV policy must comply with and complement all DOD and Joint directives. DOD policy on RFID is now codified in DTR 4500.9–R. The following section highlights key guidance with which the Army must comply.

a. System. DTR 4500.9–R designates the IGC as the DOD system for ITV. The Army will ensure integration of AIS/AIT into the IGC or the subsequent DTR 4500.9–R designated system.

b. Radio frequency identification. 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. DOD is focused 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 Army in-transit visibility vision. The Army’s ITV vision is to—

- (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 each level of a complete shipment entity minimally.

(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) Table 2–1 lists all the required shipment content level detail data elements, which comply with DTR 4500.9–R, part II.

(2) *Minimum essential data elements.* The Army has identified the following 17 minimum essential data elements that are required to be collected to provide content level detail for unit move shipments, sustainment, and retrograde cargo:

- (a) Lead transportation control number (TCN).
- (b) Container or pallet number.
- (c) Consignor (shipper) Department of Defense Activity Address Code (DODAAC).
- (d) POE.
- (e) Port of debarkation (POD).
- (f) Consignee (receiver) DODAAC.
- (g) Hazardous material code (J=hazardous or dangerous; E=ammunition/explosives; V=Government vehicles, trailers, howitzers, and aircraft; X=general cargo not covered by other codes).
- (h) Name of operation or exercise (if applicable).
- (i) Military Service (that is, Army, Navy, Marine Corps, Air Force).
- (j) Commodity class of supply.
- (k) Commodity (that is, the cargo being transported to and from locations).
- (l) Document number (that is, number generated by the consignee to indicate or describe cargo).
- (m) Intermediate TCN (if applicable).
- (n) National stock number (NSN).
- (o) Nomenclature (that is, description of cargo).
- (p) Quantity of each item.
- (q) Unit of issue (UI).

**Table 2-1
Content level detail**

Asset level detail	Shipment entity detail
NSN	Requisition document number
Nomenclature/description	Required delivery date or expedited shipment and handling codes
Model number	Project code
Condition code	Asset (item) quantity
Serial number/bumper number	UI
Line item number/package identification	"From" routing indicator code
Ammunition/explosives lot number	Shipment TCN—for single shipment unit
Department of Defense identification code	Intermediate TCN—for a multi-level consolidated shipment
Commodity class of supply	Conveyance (lead) TCN—for a consolidated shipment
	Commercial carrier shipment tracking identifier
	Transportation priority
	Sender (consignor) DODAAC/commercial activity/Government entity code
	Receiver (consignee) DODAAC
	Ship date
	POE code
	POD code
	Container number (for example, 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
	Outsize dimension(s) (length/width/height over 84 inches)
	Commodity code (air/water)
	Special handling code (air/water)
	Water type cargo code
	UIC
Unit line number (ULN)	
Operation/exercise name Hazardous material shipment descriptors as applicable (including ammunition and explosives), United Nations identification number, class or division number, net explosive weight, and compatibility group	

2-2. Standards for implementation

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

a. The standard is to—

- (1) Establish and maintain visibility of all movements at every node.
- (2) Then maintain near real-time visibility of all movement from the POD to the receiving units in theaters of operation and 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 DFARS. These standards will be accomplished using electronic data interchange (EDI) and/or those means identified in vendors' contracts.

c. The minimum level of detail for Army unit cargo is outlined in paragraph 2–1d(2). This information must be accessible through AIS and associated with specific shipment information so that a query can be made through the national RF ITV server, the IGC, and/or subsequent system.

Chapter 3 Business Rules

3–1. Purpose

ITV in support of force visibility and asset visibility is a capability accomplished by leveraging the source data of automation systems for ITV shipment documentation and associating that information with tracking and locating devices. Shipments that are properly documented in the source systems in accordance with DTR 4500.9–R and linked to the tracking systems provide the warfighter a significant capability to see and influence materiel and equipment in transit. All participants in the transportation process share the responsibility for establishing and maintaining ITV. Business rules provide specific guidance regarding how ITV is to be maintained throughout the distribution and transportation system.

3–2. 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. USTRANSCOM—as the DPO and lead proponent for ITV, as well as RFID and related AIT implementation for the DOD supply chain, and as manager of the IGC—manages asset visibility and dynamic control of resources flowing through the Defense Transportation System (DTS) to and from the theater. USTRANSCOM is responsible for ensuring that ITV is embedded in commercial carriers' contracts. 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 sustainment shipments originated, configured, and/or consolidated at DLA activities and DLA prime vendors.

c. The General Services Administration (GSA), as a major shipper of sustainment materiel in a theater of operations, provides AIT devices as required on all shipments originated, configured, and/or consolidated at GSA activities.

d. The Army and Air Force Exchange Service (AAFES), as a major shipper of materiel to a theater of operations that primarily uses commercial shipping, provides AIT devices as required on all shipments originated, configured, and/or consolidated at AAFES activities.

e. Other military Services or DOD agencies (for example, Defense Contract Management Agency) that ship materiel on behalf of the Army provide AIT devices as required on all shipments originated, configured, and/or consolidated at the respective agencies.

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

a. Asset visibility users must develop information to identify items accurately and fully 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. ITV enabling information is required for both commercial and military shipments.

(1) Commercial vendors are required by DFARS to comply with Military Standard 129 (MIL–STD–129) and MIL–STD–130, which prescribe specifications and instructions for marking materiel, packaging, and shipping labels with designated AIT media.

(2) The procuring military Service or agency will arrange for vendors to provide ITV and specify this requirement in vendors' contracts.

(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.

c. Commercial vendors and carriers will provide ITV information to military ITV systems through EDI transactions and/or those means identified in vendors' contracts. The requirement to provide this information must be included in all commercial contracts that involve shipping of military cargo.

d. All unit move, sustainment, and/or retrograde shipments (RFID layer 4 freight containers; for example, 20 or 40 foot sea vans, large engine containers, and 463L air pallets) of cargo being shipped OCONUS must have active, data-

rich RFID tags written at the point of origin for all activities (including vendors) stuffing containers or building air pallets. Content level detail will be provided in accordance with current DOD RFID data requirements.

e. 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, unit, or agency at the transshipment site is responsible for providing the transshipping information to the ITV systems via EDI transactions.

f. The personnel, unit, or agency responsible for entering cargo into the transportation system will minimize changes to the cargo configuration to optimize the distribution system and maximize the visibility of cargo, which improves ITV.

g. The originating activity of the shipment will maximize the use of single consignee for all pallets and containers. When feasible, the originating activity will build and pack pallets and containers to minimize reconfiguration during the distribution process.

h. The combination of active RFID tags and satellite technology with embedded sensors or security features provide additional ITV capabilities. The container intrusion detection device provides sensor and security monitoring of the condition, serviceability, shock, temperature, and humidity of cargo while in transit. The container intrusion detection device and the application of satellite technology will provide better identity, tracking (near real-time visibility), and notification when the integrity of the shipment is compromised. The organization in physical possession and/or control of the shipment will investigate the cause of an alert notification and take necessary corrective actions in accordance with OCONUS and/or CONUS established guidance.

3-4. Funding

a. The Army considers the cost of implementing ITV as a normal cost of transportation, contingencies, and logistics 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 and/or 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-4 and the DCS, G-8 will oversee and manage the MDEPs for AIT funding. Efforts will be synchronized with the DCS, G-3/5/7; Program Executive Officer, Enterprise Information Systems; and PD AMIS to ensure that AIT requirements in support of ITV are identified and included in the budget request. This process ensures management of expenditures and effective use of funds to support ITV requirements.

3-5. Property accounting of equipment

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

3-6. Processes

ITV begins at the point of origin and ends at the point of use. The originating source must ensure that all 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 to the originated source data, and processed for ITV. Commercial carriers must transmit reports at points or events as designated in their contracts, using EDI and/or those means identified in their contracts.

a. Origin to port of embarkation.

(1) *Unit move.* Commanders must ensure accurate data is submitted to the appropriate AIS for unit equipment. Installation transportation officers, in coordination with the units, must plan and coordinate the AIT requirements and ensure movement is uploaded into the appropriate AIS/RF ITV server.

(2) *Sustainment.* Shippers must ensure all sustainment cargo is properly marked and/or tagged in accordance with MIL-STD-129 and MIL-STD-130 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. Port of embarkation.

(1) *Aerial port of embarkation.* The Arrival/Departure Airfield Control Group (A/DACG) will assist 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 elements support ITV by ensuring unit cargo and supplies are properly tagged using DD Form 1387 (Military Shipment Label) and the data entered into the appropriate AIS upon arrival at and before departure from the APOE.

(2) *Seaport of embarkation.* SDDC is the Army's primary seaport of embarkation (SPOE) manager for ports within DTS. SDDC supports ITV by ensuring unit cargo and supplies are properly tagged using DD Form 1387 and the data entered into the appropriate AIS upon arrival at and before departure from the SPOE. As unit equipment and supplies pass through the SPOE, RFID tags are read and data is sent to a regional RF ITV server. When a vessel load is completed, SDDC coordinates with the Military Sealift Command, which reports vessel departure to the IGC (or subsequent system). For commercial carrier shipments, the carrier will provide ITV movement data via EDI for transportation events designated in the contract.

c. Port of debarkation.

(1) *Aerial port of debarkation.* The A/DACG will assist Army operations at the aerial port of debarkation (APOD). The senior logistics commander on the ground will coordinate all APOD operations. Air Mobility Command CRG supervises the aircraft offload operations. The A/DACG escorts unit equipment to and monitors unit equipment in the holding area of the APOD. The A/DACG will assist commanders with properly tagging unit equipment and supplies; processing the equipment into the appropriate AIS, and coordinates with the CRG to ensure the data is transmitted to the regional RF ITV server, the IGC, or subsequent system within the allotted timeframe, as specified in DTS.

(2) *Seaport of debarkation.* The SDDC serves as the designated port manager at the seaport of debarkation (SPOD) within DTS and is responsible for maintaining ITV. AIT data is sent to the regional RF ITV server, the IGC, or subsequent system as unit equipment and supplies pass through the SPOD. SDDC is also responsible to check all AIT for accuracy and repair or replace any RFID tags or labels, as needed, in order to maintain accurate and timely ITV data. ITV is accomplished through coordination with the movement control team assigned to the SPOD. For commercial carrier shipments, carriers will provide ITV movement data for transportation events as designated in their contracts, via EDI and/or those means identified in their contracts.

d. Supply support activity or other distribution activities. Supply support activities (SSAs), depots, central receiving points, or other distribution activities are responsible for reporting receipt of cargo and the end of transit. SSAs are equipped with AIT devices capable of capturing data via AIS.

e. Receiving unit. The receiving unit must ensure receipt of all shipments is documented in the appropriate AIS.

f. Commercial carriers. Commercial carriers must submit a final transaction using EDI and/or those means identified in their contracts, which indicates delivery and end of transit as designated in their contracts. Carriers will coordinate with unit movement officers, installation transportation offices, and/or transportation management offices to use commercial bill of lading to ensure equipment shipped via linehaul is completed with necessary data to provide ITV.

Appendix A References

Section I Required Publications

AR 56-4

Distribution of Materiel and Distribution Platform Management (Cited in para 3-5.)

DFARS

Defense Federal Acquisition Regulation Supplement (Cited in para 1-4a(5).) (Available at <http://www.acq.osd.mil/dpap/dars/dfarspgi/current/index.html>.)

DTR 4500.9-R

Defense Transportation Regulation (Cited in para 1-1.) (Available at <http://www.transcom.mil/dtr/dtrHome/>.)

JP 4-0

Joint Logistics (Cited in para 1-4g(2).) (Available at <http://www.dtic.mil/doctrine/>.)

MIL-STD-129

Military Marking for Shipment and Storage (Cited in para 3-3b(1).) (Available at <https://assist.dla.mil/online/start/>.)

MIL-STD-130

Identification Marking of U.S. Military Property (Cited in para 3-3b(1).) (Available at <https://assist.dla.mil/online/start/>.)

Section II Related Publications

A related publication is a source of additional information. The user does not have to read it to understand this publication. DOD publications are available at <http://www.dtic.mil/whs/directives/>.

AR 11-2

Managers' Internal Control Program

AR 25-30

Army Publishing Program

DODD 8320.03

Unique Identification (UID) Standards for a Net-Centric Department of Defense

JP 3-35

Deployment and Redeployment Operations (Available at <http://www.dtic.mil/doctrine/>.)

Under Secretary of Defense (Acquisition, Technology and Logistics) Policy Memorandum

Radio Frequency Identification (RFID) Policy, July 30, 2004 (Available at <https://acc.dau.mil/CommunityBrowser.aspx?id=32575>.)

Section III Prescribed Forms

This section contains no entries.

Section IV Referenced Forms

Unless otherwise indicated, DA forms are available on the Army Publishing Directorate Web site (<http://www.apd.army.mil>), and DD forms are available on the Office of the Secretary of Defense Web site (http://www.dtic.mil/whs/directives/info_mgt/forms/formsprogram.htm).

DA Form 11-2

Internal Control Evaluation Certification

DA Form 2028

Recommended Changes to Publications and Blank Forms

DD Form 1387

Military Shipment Label

**Appendix B
Internal Control Evaluation****B-1. Function**

The function of this evaluation is to provide guidance for the conduct of the management of responsibilities and standards for the implementation of Army ITV capability.

B-2. Purpose

The purpose of this evaluation is to assist all organizations and activities originating or receiving materiel and/or forces in evaluating the key internal controls listed in paragraph B-4. It is intended as a guide and does not cover all controls.

B-3. Instructions

Answers must be based on the actual testing of internal controls (for example, document analysis, direct observation, interviewing, sampling, simulation, or other). Answers that indicate deficiencies must be explained and the corrective action indicated in the supporting documentation. These internal controls must be evaluated at least once every 5 years. Certification that this evaluation has been conducted must be accomplished on DA Form 11-2 (Internal Control Evaluation Certification).

B-4. Test questions

- a.* Do the ITV processes provide support to the DOD ITV objectives?
- b.* Do the ITV business rules enable ITV of Army cargo?
- c.* Does the use of RFID technology provide the return on investments?
- d.* Have commanders and/or organizations developed internal checks and balances to ensure active RFID tags are written with content level detail?
- e.* Do personnel writing data to active RFID tags validate that the information is visible in the RF ITV server?
- f.* Do the 17 data elements for Army unit move shipments provide better content level detail?

B-5. Supersession

This is the initial internal control evaluation for implementation of Army ITV capability.

B-6. Comments

Help make this a better tool for evaluating internal controls. Submit comments to the DCS, G-4 (DALO-FPD), 500 Army Pentagon, Washington, DC 20310-0500.

Glossary

Section I Abbreviations

AAFES

Army and Air Force Exchange Service

A/DACG

Arrival/Departure Airfield Control Group

AIS

Automated Information System

AIT

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 (Acquisition, Logistics and Technology)

ASCC

Army service component command

AWCF

Army Working Capital Fund

BOIP

basis of issue plan

CG

commanding general

CIO/G-6

Chief Information Officer/G-6

CONUS

continental United States

CRG

Contingency Response Group

DA

Department of the Army

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

DOD

Department of Defense

DODAAC

Department of Defense Activity Address Code

DODD

Department of Defense directive

DPO

Distribution Process Owner

DRU

direct reporting unit

DTR

Defense Transportation Regulation

DTS

Defense Transportation System

EDI

electronic data interchange

FORSCOM

U.S. Army Forces Command

GSA

General Services Administration

IGC

Integrated Data Environment/Global Transportation Network Convergence

ITV

in-transit visibility

IUID

item unique identification

JP

Joint publication

MDEP

management decision package

MIL-STD

military standard

NSN

National stock number

OCONUS

outside the continental United States

PD AMIS

Product Director Automated Movement and Identification Solutions

POD

port of debarkation

POE

port of embarkation

RF

radio frequency

RFID

radio frequency identification

SDDC

Military Surface Deployment and Distribution Command

SPOD

seaport of debarkation

SPOE

seaport of embarkation

SSA

supply support activity

TCN

transportation control number

TOE

table of organization and equipment

TPFDD

time-phased force deployment data

TRADOC

U.S. Army Training and Doctrine Command

TSG

The Surgeon General

UI

unit of issue

UIC

unit identification code

ULN

unit line number

USAFMSA

U.S. Army Force Management Support Agency

USTRANSCOM

United States Transportation Command

Section II Terms

Asset visibility

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 end items. The data-rich elements of this tag should allow it to be used for multiple military purposes that may include, but are not limited to, ITV, 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

A suite of tools for facilitating total asset visibility source data capture and transfer. AIT includes a variety of devices, such as bar codes, magnetic strips, optical memory cards, and RF 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 logistics information. AIT integration with logistics information systems is key to DOD total asset visibility efforts.

Content level detail (unit movement)

Army unit move shipments, sustainment, and retrograde cargo data elements. The minimum data elements to be collected for Army unit move shipments, sustainment, and retrograde cargo include the following 17 items:

- a. Lead TCN.
- b. Container or pallet number.
- c. Consignor (shipper) DODAAC.
- d. POE.
- e. POD.
- f. Consignee (receiver) DODAAC.
- g. Hazardous material code (J=hazardous or dangerous; E=ammunition/explosives; V=Government vehicles, trailers, howitzers, and aircraft; X=general cargo not covered by other codes).
- h. Name of operation or exercise (if applicable).
- i. Military Service (that is, Army, Navy, Marine Corps, Air Force).
- j. Commodity class of supply.
- k. Commodity (that is, the cargo being transported to and from locations).
- l. Document number (that is, number generated by the consignee to indicate or describe cargo).
- m. Intermediate TCN (if applicable).
- n. NSN.
- o. Nomenclature (that is, description of cargo).
- p. Quantity of each item.
- q. UI.

Deployment

The relocation of forces and materiel to desired operational areas. Deployment encompasses all activities from origin or home station through destination, specifically including intra-CONUS, 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 logistics 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

The 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

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.

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.

Integrated Data Environment/Global Transportation Network Convergence

The automated support necessary to enable USTRANSCOM and its components to provide global transportation management. The IGC provides the integrated transportation data and systems necessary to accomplish global transportation planning, command and control, and ITV across the range of military operations. The designated DOD ITV system provides customers with the ability to track the identity, status, and location of DOD units, and non-unit 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. The IGC collects, integrates, and distributes transportation information to combatant commanders, Services, and other DOD customers. The IGC 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

The ability to track the identity, status, and location of DOD units, and non-unit 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.

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.

Non-unit-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).

Non-unit-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

A suite of technology that enables hands-off processing of materiel transactions for cargo deploying through DTS. RFID provides operators a means to remotely identify, categorize, and locate materiel automatically within relatively short distances. Data is 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 AIS. The technology is divided into two categories of data storage and retrieval systems, passive and active. Active RFID systems are omnidirectional 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 logistics 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-129).
- 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-129).
- d. RFID layer 3: the palletized unit load (that is, a loaded warehouse pallet) (see MIL-STD-129).
- 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, or 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 receives and temporarily stores 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 outprocessing.

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.

Unit line number

An alphanumeric field (from two to seven characters in length) that describes a particular force in the TPFDD database. The information contained in the ULN is used as the basis for organizing TPFDD-related planning, reporting, and tracking data on the movement of forces and equipment from points of origin to deployed destinations. The ULN is a unique identifier for a TPFDD force requirement and is the cornerstone on which all movement data is built.

Section III

Special Abbreviations and Terms

This section contains no entries.

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