Headquarters **United States Army, Europe, and Seventh Army** **United States Army Installation Management Agency** **Europe Region Office** **Heidelberg, Germany**	**Army in Europe** **Regulation 700-66** **26 January 2006**

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Logistics

In-Transit Visibility Policy

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For the CG, USAREUR/7A:

E. PEARSON
Colonel, GS
Deputy Chief of Staff

Official:

GARY C. MILLER
Regional Chief Information
 Officer - Europe

Summary. This regulation prescribes policy and procedures for implementing in-transit visibility and meeting nodal performance goals for cargo shipped by or consigned to Army units in Europe.

Applicability. This regulation applies to units moving cargo to, in, or out of the European theater to support deploying Army units and sustainment operations.

Supplementation. Organizations will not supplement this regulation without USAREUR G4 (AEAGD-L) approval.

Forms. AE and higher-level forms are available through the Army in Europe Publishing System (AEPUBS).

Records Management. Records created as a result of processes prescribed by this regulation must be identified, maintained, and disposed of according to AR 25-400-2. Record titles and descriptions are available on the Army Records Information Management System website at *https://www.arims.army.mil*.

Suggested Improvements. The proponent of this regulation is the USAREUR G4 (AEAGD-L, DSN 370-8914). Users may suggest improvements to this regulation by sending DA Form 2028 to the USAREUR G4 (AEAGD-L), Unit 29351, APO AE 09014-9351.

Distribution. B (AEPUBS).

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SECTION I
INTRODUCTION

1. PURPOSE
This regulation identifies methods and establishes procedures to implement automatic identification technology (AIT) to achieve in-transit visibility (ITV) and meet nodal performance goals for cargo shipped by and consigned to the Army in Europe. The use of AIT is essential for implementing distribution-based logistics. This regulation also prescribes the use of radio frequency identification (RFID) and satellite tracking systems (STS) for deployment, sustainment, and retrograde of equipment and material in the Army in Europe. ITV enables commanders and distribution managers to reprioritize, divert, or expedite cargo in the pipeline. Improved ITV of unit equipment, sustainment material, and personnel is crucial to sustaining combat service support (CSS) and providing effective battle command.

2. REFERENCES

a. Publications.

(1) Joint Publication 4-01, Joint Doctrine for the Defense Transportation System (*http://www.dtic.mil/doctrine/jel/new_pubs/jp4_01.pdf*).

(2) Memorandum, Deputy Under Secretary of Defense, 30 July 2004, subject: Radio Frequency Identification Policy (*http://www.acq.osd.mil/log/rfid/Policy/RFID%20Policy%2007-30-2004.pdf*).

(3) USEUCOM Directive 66-2, Policy for Theater Asset Visibility (*http://pubs.eucom.mil/ED/60to66/ED66-2.pdf*).

(4) National In-transit Visibility Server (*https://national.rfitv.army.mil/login/*).

b. Forms.

(1) DA Form 2028, Recommended Changes to Publications and Blank Forms.

(2) Advanced Transportation Control Movement Document (ATCMD) Form (*http://www.pats.wpafb.af.mil/atcmd/Index.cfm/*).

3. EXPLANATION OF ABBREVIATIONS
The glossary defines abbreviations.

4. RESPONSIBILITIES

a. The USEUCOM J4 will—

(1) Coordinate with Service components to ensure an adequate en route RFID infrastructure is acquired and operating at key logistics nodes.

(2) Provide policy on the use of AITs and information systems (ISs) as they evolve and are introduced into the USEUCOM area of operations (AO).

(3) Validate requirements for additional interrogators from Service components and coordinate with the USEUCOM executive agent for site survey and installation support.

(4) Coordinate with the Defense Logistics Agency and ensure the use of RFID to support ITV of distribution and deployment center pallets and containers.

(5) Direct the development of the theater IS and AIT infrastructure.

b. The product manager, Joint Automatic Identification Technology (J-AIT) Office, Program Executive Office, Enterprise Information Systems, will—

(1) Fund the installation and infrastructure that supports the Army AIT mission.

(2) Procure AIT equipment (including RFID equipment) and infrastructure.

(3) Provide a centralized management structure for regional ITV servers, including the SIPRNET-ITV server.

(4) Ensure the NIPRNET-based ITV servers are interoperable with Global Transportation Network (GTN), GTN 21, joint total asset visibility (JTAV), integrated data environment-asset visibility, and other DOD logistics systems.

(5) Ensure the SIPRNET-based ITV server is interoperable with the Global Combat Support System, the Global Command and Control System, and other DOD logistics systems.

(6) Be responsible for maintaining the accreditation and networthiness certification of all ITV servers.

c. As the USEUCOM executive agent for ITV and AIT, the USAREUR G4 (AEAGD-L), will—

(1) Serve as the functional and technical proponent for ITV.

(2) Develop ITV policy and business rules.

(3) Coordinate development and manage the AIT and ITV infrastructure in coordination with USEUCOM.

(4) Identify and forecast AIT, RFID, and STS requirements with HQDA (DALO-SMI). The forecast will facilitate budget and funding.

(5) Coordinate fielding plans and site requirements with the J-AIT program manager to ensure technical assistance and support for adding sites to the radio frequency (RF) ITV network is available.

(6) Ensure operation plans include forecasts for devices and equipment in order to provide ITV of equipment and cargo.

(7) Develop and conduct ITV training, certification, and sustainment operations.

(8) Maintain a deployable AIT capability to support theaterwide exercises and contingency requirements.

(9) Maintain a fixed RFID capability at selected nodes to support peacetime-user requirements, serve as a basis for continued technology and process improvement, and provide a base for expansion to support contingency operations.

(10) Maintain hand-receipts for interrogators on civilian property.

(11) Install AIT and IS equipment and ensure property is accounted and signed for at military installations.

d. Units must—

(1) Ensure RFID tags are applied to the appropriate deploying-unit equipment and organizational cargo.

(2) Appoint accountable officers to ensure proper accountability for RFID tags under their responsibility. RFID tags are coded expendable, but are recoverable and reusable.

(3) Ensure tags are erased and batteries inverted after redeployment.

(4) Retain RFID tags with unit equipment for use in redeployment unless directed otherwise.

e. Distribution nodes (shipping and receiving organizations) must follow the procedures in paragraph 5.

SECTION II
IN-TRANSIT VISIBILITY BUSINESS RULES DURING SUSTAINMENT AND DEPLOYMENT OPERATIONS

5. IN-TRANSIT VISIBILITY BUSINESS RULES DURING SUSTAINMENT OPERATIONS

a. Shipper Responsibilities.

(1) Distribution activities in the USAREUR area of responsibility (AOR) must burn (write) one active data-rich RF tag for each consignee per conveyance to the standard identified in paragraph 9. The tag must show the final destination for the cargo (ultimate consignee rather than an intermediary trans-shipment point). Use source-data automation systems (for example, sustainment IS) as much as possible to reduce the burden of providing intermediary shipping-point information.

(2) Shippers in the USEUCOM AOR will burn one active data-rich RF tag for the entire conveyance (for example, container, pallet, truckload) to the standard identified in paragraph 9. The tag must show the final destination of the conveyance.

(3) After burning the tag, shippers will upload the tag data to the regional-ITV server for transmission to the GTN and other appropriate global asset-visibility systems. Shippers will verify the data transmission by checking the RF-ITV server or by using a handheld interrogator to read the tag.

(4) Shippers will send an ATCMD to the aerial port of embarkation (APOE) using either an automated program or using the ATCMD website (*http://www.pats.wpafb.af.mil/atcmd/Index.cfm/*). Shippers must provide full commodity detail on the ATCMD, because this information will determine the level of detail to put in the Global Air Transportation Execution System.

(5) Place the materiel release order (MRO) in a packing-list envelope, ensure the MRO is capable of being scanned without removing it from the packing label, and ensure the barcode is not written over, lined through, taped, or stapled.

(6) Ensure distribution activities equipped with tag-write capabilities create an RF tag.

(7) Distribution activities must have a standing operating procedure (SOP) that identifies their internal and external RFID business processes. As a minimum, the SOP must prescribe the following:

(a) Detailed procedures on populating active RFID tags to content-level detail as identified in paragraph 9, to ensure tags are activated and uploaded.

(b) A list of technical support POCs.

(c) A maintenance schedule for hardware.

(d) Procedures required for developing documentation (for example, optical memory cards (OMCs), transportation control and movement documents (TCMDs), Government bills of lading).

(8) The AIT help desk is available to provide answers to questions about RF tags and procedures. The AIT help desk can be reached at DSN 375-7232 or civilian 0621-487-72132. The help desk is staffed Monday through Friday, 0730 to 1700, central European time. For emergency ITV and ITV-integrated webserver repair, contact the 43d Signal Battalion Network Operations and Security Center (NOSC) at civilian DSN 370-6072 or 06221-57-6072. The NOSC does not have contact information for RF tag field-service support. Contact the NOSC if an emergency arises in RF tag read or write actions and the NOSC will notify the appropriate persons to provide assistance.

b. Trans-Shipper Responsibilities. The 200th Material Management Center, 21st Theater Support Command, will—

(1) Maintain RFID read and write capability.

(2) Use the standard Army retail supply system-objective detailed OMCs, RF tags, and the Automated Manifest System (AMS) global OMCs for in-processing and verifying multipacks on receipt of cargo.

(3) Obtain shipment receipts in the Cargo Movement Operating System (CMOS) and transmit receipt data to the GTN.

(4) Remove global RF tags for the conveyance of multiconsignee cargo that will be segregated at the theater distribution center (TDC).

(5) Leave existing (detail) RF tags that are consigned to an ultimate consignee shipment unit.

(6) Write one RF tag per consignee per conveyance according to standards identified in paragraph 9. If the cargo already has a tag for the ultimate consignee and no additional cargo for that consignee has been added, the TDC does not need to burn an additional tag.

(7) After writing the tag, upload the tag data to the regional-ITV server for transmission to the GTN and other global appropriate asset-visibility systems. The TDC will verify the data transmission in CMOS using the RF tag verification option.

(8) Create a new detailed OMC for each multipack or pallet if one does not already exist.

(9) Produce a global OMC for a pallet or a container-trailer load.

(10) Provide positive-inbound clearance to the destination branch movement control team for cargo being shipped by the TDC.

(11) Produce an automated TCMD or truck manifest.

(12) Consolidate, pack, and ship RF tags not used for referral or retrograde shipments to the Defense Distribution Center-East using the Uniform Materiel Movement and Issue Priority System. Return the RF tags as priority 03. The following statement must be placed on containers and packages with RF tags: "This container or package contains nonregulated lithium batteries."

(13) Provide feedback to shippers who routinely fail to burn RF tags for their shipments.

c. Consignees will—

(1) Use the AMS OMC and portable data collection device (PDCD) barcode scanner to process receipts.

(2) Report gains and losses noted at the time of receipt to the originating distribution activities or the TDC.

(3) Invert the RF tag battery to prevent repetitive reads by interrogators and battery drain at the final destination.

(4) Maintain an inventory of RF tags to support outbound demands, depending on the historical workflow (for example, 3 months of data). Return adequately packed and protected excess consolidated OMC and RF tags (for example, in groups of 25) in a box to the TDC or mail them to the TDC at one of the following addresses:

Civilian	Military
Theater Distribution Center	Theater Distribution Center
ESCK -Panzer Kaserne	Building 3040/3041
Mannheimer Strasse (Building 3040/3041)	APO AE 09227
67657 Kaiserslautern	
	DSN: 484-7775
DSN: 484-7775	Civilian: 0631-413-7775
Civilian: 0631-413-7775	DODAAC: W803RA
DODAAC: W803RA	

6. IN-TRANSIT VISIBILITY BUSINESS RULES DURING DEPLOYMENT OPERATIONS

a. Training. Commanders will ensure RF tag management and retrograde are included in unit training schedules. Unit movement officers will provide personnel who will deploy to write RF tags for unit containers during deployment and redeployment operations. Units must contact the USAREUR G4 (AEAGD-L) at DSN 375-5134 for functional and onsite assistance with hardware and software requirements using the Transportation Coordinators Automated Information for Movement Systems (TC-AIMS). Units requiring training must contact the Training Management Branch, Combined Arms Training Center at DSN 476-4050 or 476-2097.

b. RFID Tag Requirements for Equipment Being Deployed. Commanders will ensure RFID tag data is entered using the software provided with the tag writer before vehicles and containers are shipped from the home station.

(1) Vehicles. The RFID tag will show the following information about the equipment on the back of the vehicle:

(a) Transportation control number (TCN).

(b) Unit identification code (UIC).

(c) Unit line number.

(d) Vehicle type and model (for example, M998, M577).

(e) Vehicle bumper number.

(f) Port of embarkation (POE).

(g) Port of debarkation (POD).

(h) Consignee (shipping unit).

(i) Consignor (receiving unit).

(j) Hazardous materiel (HAZMAT).

(k) Transportation priority.

(2) Unit and Sustainment Containers or Pallets. The RFID tag will include the following information about the cargo loaded in the container or pallet:

(a) Lead TCN.

(b) UIC.

(c) Consignor (receiving unit).

(d) HAZMAT.

(e) Transportation priority.

(f) Content information.

(g) Nomenclature.

(h) Line item number (LIN).

(i) National stock number (NSN).

(j) Serial numbers (for all sensitive items).

(k) Document number or requisition number.

(l) Quantity.

(m) Unit of issue.

   c. RFID Tags for Sensitive Item Containers. Sensitive item containers are treated the same as unit containers (except, the unit must add an "S" as the first letter in the container number). This will identify the container for tracking purposes and as high visibility. Commanders will ensure that the nomenclature, NSN, and serial number for all sensitive items are burned on the RFID tag. For example, if the container number was 24th CSG HHC 1, it would be marked "S24th CSG HHC 1" on the RFID tag.

   d. Mounting RFID Tags. Units must ensure RFID tags are attached to the correct equipment and in the correct locations.

   (1) Vehicles. Commanders will ensure—

      (a) RFID tags are attached to the top of the radiator cover or grill (fig 1) using two nylon strips.
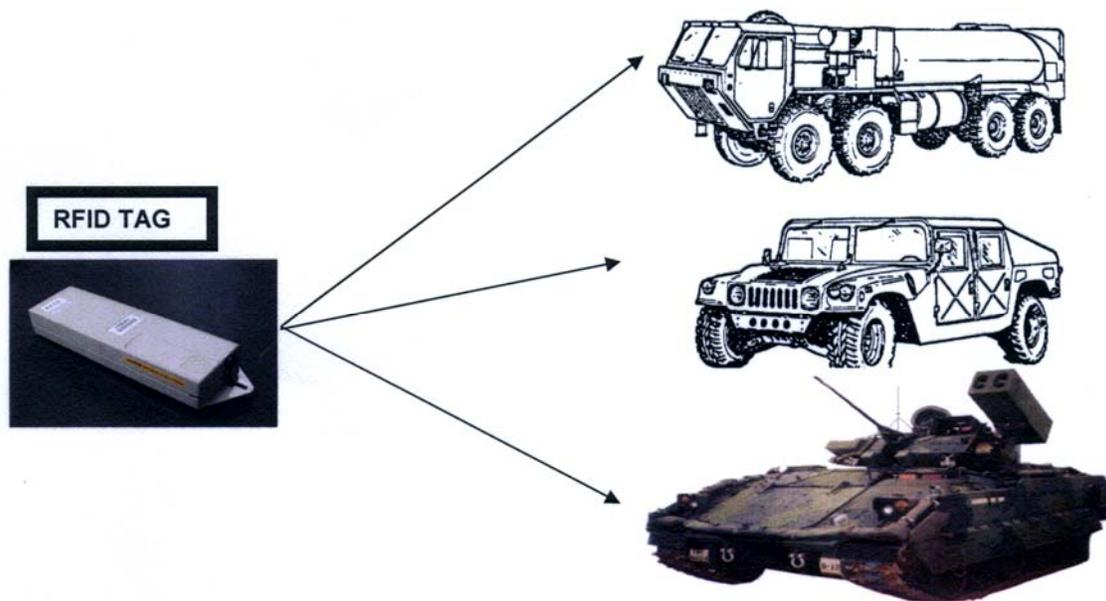

Figure 1. Mounting Radio Frequency Identification Tags on Vehicles

      (b) Tags are secure so that they do not bounce or come off during transit. RFID tags may also be mounted on the windshield.

      (c) RFID tags are attached on the outside of the equipment.

   (2) Containers. Commanders will ensure RFID tags are attached to containers as follows:

      (a) Attach the RFID tag to the locking bar on the front door near the upper-right-hand corner (fig 2).

      (b) Mount the tag so that it will not be destroyed or tampered with during shipment.

      (c) Use nylon strips to mount older RFID seal tag IIs to the front door.
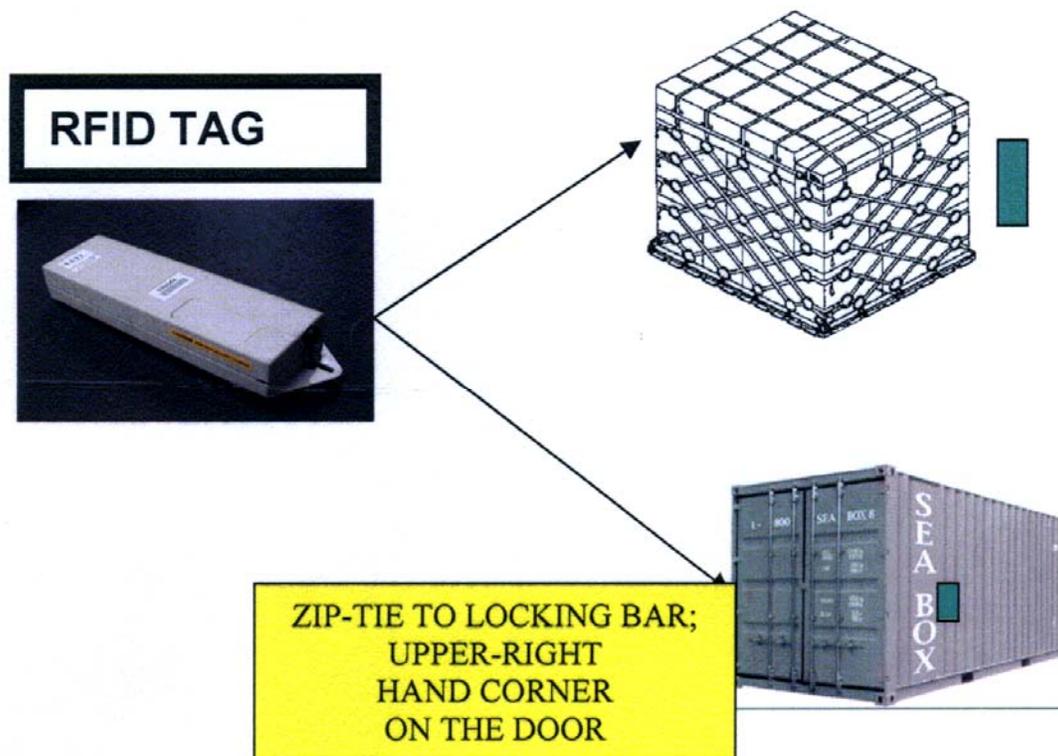
Figure 2. Mounting Radio Frequency Identification Tags on Pallets and Containers

(3) **463L Pallets.** Commanders will ensure RFID tags on 463L pallet netting are attached using nylon strips. The tag should be placed near the material shipping label (MSL).

(4) **Other Equipment.** Commanders will ensure RFID tags are mounted on other equipment—

(a) So that they can be easily read but not damaged.

(b) With nylon or plastic strips.

(c) Near an MSL.

e. Holes. Do not drill holes in containers before receiving written approval from the USEUCOM executive agent for container management, Cargo Operations Container Branch, 1st Transportation Movement Control Agency, DSN 483-6147.

7. ORDERING RADIO FREQUENCY TAGS FOR DEPLOYMENT AND REDEPLOYMENT
Units must requisition the following items through the normal supply system when notified of an upcoming deployment or redeployment:

a. RF tags, Savi 410 Tag, NSN 6350-01-495-3040. The tags will be used for containers, pallets, rolling stock, and anything deploying or redeploying.

b. RF tags, Savi 654 Tag, NSN 6350-01-523-1998. The tags will be used for containers, pallets, rolling stock, and anything deploying or redeploying.

c. Magnetic mounting brackets, NSN 5340-01-495-3007. Magnetic mounting brackets are used on containers only.

d. 3.6 volt AA lithium batteries (for 410 tags), NSN 6135-01-301-8776. Batteries are spares; each tag battery comes with a battery.

e. Batteries (654 tags), NSN 6135-01-524-7621. Batteries are spares; each tag battery comes with a battery.

f. Cable ties for RF tags, NSN 5975-00-899-4606. Cable ties are used to affix a tag to pallets, rolling stock, and anything except a container.

g. Lacing wire, NSN 9505-00-640-4290. Lacing wire is used to affix a tag to pallets, rolling stock, and anything except a container.

8. RADIO FREQUENCY TAG ACCOUNTABILITY DURING DEPLOYMENT

The RF tags on deploying-unit equipment and organizational cargo will not be erased, removed, or disabled until the unit is closed and the unit commander directs that RF tags are no longer required for ITV. The RF tags will then be removed but not erased, and batteries will be inverted to disable the RF tags. Units must retain the RF tags with unit equipment for redeployment, unless directed otherwise.

SECTION III
RADIO FREQUENCY IDENTIFICATION WRITE STANDARDS

9. ACTIVE RADIO FREQUENCY IDENTIFICATION WRITE STANDARDS

a. All active data-rich RF tag files must be populated with content-level information using the latest version of the joint total asset visibility sustainment format. The minimum data format for an RF tag includes the following:

(1) **License Plate.** This includes the lead TCN, container or pallet number, POE or POD, consignee, consignor, HAZMAT identification, and transportation priority. License plate data is a quick and easy means of accessing important summary information from the tag. Each line of information in the license plate section should be less than 20 characters and terminated by a carriage return and line feed to facilitate the display of data with a handheld interrogator.

(2) **TCMD.** 80 card column prime entry.

(3) **Commodity Data.** This includes the document number, NSN, nomenclature, routing identifier code, LIN, quantity, and unit of issue.

b. Transmission must adhere to the following DOD guidelines prescribed in Joint Publication 4-01, chapter 4:

(1) **Sustainment Airlift.** The arrival and departure of sustainment-air cargo and personnel at all nodes from origin to destination will be visible in the GTN within 1 hour of the event.

(2) **Sustainment Sealift.** The arrival and departure of sustainment-ocean cargo at all nodes from origin to destination will be visible in the GTN within 4 hours of the event.

SECTION IV
MANAGEMENT OF RADIO FREQUENCY TAGS AND INTERROGATORS

10. RADIO FREQUENCY TAG MANAGEMENT

a. Units and distribution nodes can order tags through the normal supply chain in the Army in Europe.

b. Units must return adequately packed and protected excess consolidated OMC and RF tags (for example, in groups of 25) in a box to the TDC or mail them to the TDC at one of the following addresses:

Civilian	Military
Theater Distribution Center	Theater Distribution Center
ESCK -Panzer Kaserne	Building 3040/3041
Mannheimer Strasse (Building 3040/3041)	APO AE 09227
67657 Kaiserslautern	
	DSN: 484-7775
DSN: 484-7775	Civilian: 0631-413-7775
Civilian: 0631-413-7775	DODAAC: W803RA
DODAAC: W803RA	

c. Units must keep enough RF tags for redistributing and deploying equipment.

11. RADIO FREQUENCY INTERROGATOR AND TAG MANAGEMENT

a. Units must send requests for new interrogators to the USAREUR G4 (AEAGD-L). The USAREUR G4 will forward these requests to USEUCOM (ECJ4-LIS) for validation. After validating the request, USEUCOM (ECJ4-LIS) will request that the USAREUR G4 support installation of new interrogators.

b. Units and shipping organizations must maintain RFID asset accountability in their property books.

c. Shipping and receiving organizations and units must sign for all newly installed interrogators.

d. In the event of a malfunctioning interrogator, the handreceipt holder (or unit representative) should contact the AIT help desk at DSN 314-375-7232 or civilian 49-(0)621-487-7232 for assistance. The help desk is staffed Monday through Friday, 0730 to 1700, central European time.

e. The USAREUR G4 will respond to malfunctioning interrogators within 24 hours for locations in central Europe and within 48 hours for deployed locations in the USEUCOM AOR. The USAREUR G4 will schedule maintenance accordingly.

f. The USAREUR G4 will maintain the handreceipt for interrogators installed on civilian property.

g. All sites must be properly registered on the RF ITV network to establish ITV using AIT and RFID. Registration requires the following information:

(1) Interrogator name. Procedures for proper naming conventions are found at *https://national.rfitv.army.mil/login/*.

(2) Description (for example, APOD front gate, road intersection).

(3) Latitude and longitude (global positioning system coordinates).

(4) POC (name, DSN number, and e-mail address) for the site location.

h. RFID interrogators and tag docking stations must be named and configured according to the standard naming convention published by the J-AIT, and registered properly to the servicing ITV server. Information about the standard naming convention for RFID hardware is available on the USAREUR-ITV server or from the AIT help desk at DSN 375-7232 or civilian 49-(0)621-487-7232. Units anticipating the activation or deactivation of portable RFID equipment, such as the early entry deployment kit and TC-AIMS II kit, must coordinate with the USAREUR G4 (AEAGD-L) and AIT help desk before registration to ensure compliance with RFID naming convention rules and proper registration of RFID sites.

i. RFID tags are expendable, recoverable, reusable property. They do not require property book accounting, but should be treated as a durable item that must be controlled and accounted for by the shipping and receiving organizations and units.

GLOSSARY

AE	Army in Europe
AEPUBS	Army in Europe Publishing System
AIT	automatic identification technology
AMS	Automated Manifest System
AO	area of operations
AOR	area of responsibility
APO	Army post office
APOE	aerial port of embarkation
AR	Army
ATCMD	advanced transportation control and movement document
CG, USAREUR/7A	Commanding General, United States Army, Europe, and Seventh Army
CMOS	cargo movement operating system
CSS	combat service support
DA	Department of the Army
DOD	Department of Defense
DSN	Defense Switched Network
G4	Deputy Chief of Staff, G4, United States Army, Europe
GS	general staff
GTN	global transportation network
HAZMAT	hazardous material
HQDA	Headquarters, Department of the Army
IS	information system
ITV	in-transit visibility
J4	Director for Logistics and Security Assistance, J4, United States European Command
J-AIT	joint automatic identification technology
JTAV	joint total asset visibility
LIN	line item number
MRO	material release order
MSL	material shipping label
NOSC	network operations and security center
NSN	national stock number
OMC	optical memory card
PDCD	portable data collection device
POC	point of contact
POD	port of debarkation
POE	port of embarkation
RF	radio frequency
RFID	radio frequency identification
SIPRNET	Secret Internet Protocol Router Network
SOP	standing operating procedure
STS	satellite tracking systems
TC-AIMS	Transportation Coordinators Automated Information for Movement Systems
TCMD	transportation control and movement document
TCN	transportation control number
TDC	theater distribution center
UIC	unit identification code
USAREUR	United States Army, Europe
USEUCOM	United States European Command