DOD Active RFID ISO Migration Plan

In 2007, DOD approved a strategy to transition from the ANSI 256 active RFID tags to the ISO 18000-7 standard in order to ensure uninterrupted In-Transit Visibility (ITV) of cargo shipments to support war fighters. ANSI tags use a numbering convention that had exhausted all available combinations of serial numbers, thereby making it impossible to generate unique tag identification numbers in the future.

The ISO communication standard ensures an unlimited supply of unique tag identification numbers. It also provides DOD an opportunity to use tags with commercial standards that can be supplied by multiple vendors, thereby providing a competitive acquisition environment with products at a lower cost.

The U.S. Transportation Command (USTRANSCOM), as the Distribution Process Owner and lead proponent for Automatic Identification Technology and ITV, has been spearheading the migration efforts, which included multiple automated system modifications, software updates and equipment/tag purchases. They are partnering with AMIS and the other DOD active RFID stakeholders to fully implement the migration strategy while ensuring the migration is transparent to the war fighter.

The 2007 DOD migration strategy was reaffirmed by a USTRANSCOM memorandum in May 2012, which was coordinated and unanimously supported by all stakeholders. It stipulated that 1 January 2014 would be established as the execution date for the ISO-only enterprise. After that date, all stakeholders were to only use ISO products and software and cease using ANSI RFID tags.

It’s Time to Finish the 7-Year RF-ITV Transformation Effort

It has been ten months since 1 Jan 2014 and we are still seeing a significant number of ANSI tags going through the Defense Transportation System (DTS).
This situation was recently discussed at a senior leaders’ conference, and after understanding the risks and potential loss or gaps in ITV with the continued use of ANSI tags, the decision was made to establish 1 January 2015 as the revised firm execution date for the ISO-only enterprise. Reader infrastructure and other equipment will be modified and these changes will preclude the reading of ANSI tags after 1 January 2015. Some of these actions will take time to fully complete, but every effort should be taken to cease the use of ANSI tags after 31 Dec 2014. We are soliciting your help and assistance with reaching out to your units and activities to ensure they are using only ISO tags on shipments going through the Defense Transportation System effective 1 January 2015.

The ANSI tag has done a great job for ITV, but its time has come and gone. If you have remaining stocks of ANSI tags, you should turn them in to the nearest Defense Logistics Agency (DLA) Disposition Services representative. For information on how to locate a DLA Disposition Services site and schedule a turn-in, see [http://www.dispositionservices.dla.mil/drmo/Pages/default.aspx](http://www.dispositionservices.dla.mil/drmo/Pages/default.aspx).
Site Analysis: Piermasens De (Husterhoeh USAMMCE D&T), HUSTERHOEHW4

For this month’s analysis we selected HUSTERHOEHW4 (Device ID TE8393549DB52), USAMMCE located at Husterhoeh Kaserne in Pirmasens Germany. From the RF-ITV Tracking Portal we selected Track > Sustainment Cargo, entered a ‘Write Station ID’ of E8393549DB52 and for the ‘Write Date’ selected 01 through 28 Oct 2014. This query and criteria produced 77 tagged shipments of Class VIII (medical material) to analyze. The result of our data analysis follows:

- By comparing RF tag data such as the Consignee Department of Defense Activity Address Code (DODAAC), Port of Debarkation (POD) on the RFID tag to the Read events of the tag and Last Reported Interrogator Name, we were able to track 58 of the 77 tagged shipments (75%) to their final destination.

- Arrival at the final destination could not be determined or confirmed for 19 shipments. Using data on the ITV portal, we found that:
  - Thirteen RF tags were last read arriving at the Port of Embarkation (POE) (Ramstein Air Base) and appear to have either been separated from their associated shipment (small package consolidation to air pallets) or were destined to locations that had no RF-ITV capability. A portion of these shipments was traveling to detachments located at remote sites/airfields.
  - Six shipment tags were never read moving through the distribution pipeline after the initial write event (never read leaving Pirmasens). We were unable to confirm cancellation of all six shipments, but based on RF-ITV Tracking Portal data we determined that two of the six tags were erased and used on different shipments. Our assumption is that the other four shipments were also canceled, but the tags have not yet been erased and reused.

- All 77 POE and POD codes were found to be valid; however, in 25 of 77 instances the write site improperly used port codes by matching an airport with an In-land ‘Ground Destination’ Location Code (ILC). In accordance with Joint Defense Total Asset Visibility (DJTAV) 2.5, ILCs must not be used for shipments transiting air or sea ports of embarkation and debarkation. Essentially, do not mix and match airport, seaport, and inland codes. Remember if your item is getting on a plane, use airport codes in the POE/POD fields—if getting on a boat, seaport codes need to be used; and finally, if the shipment stays on the ground (truck/train) then use ILCs in the POE/POD fields.

- We noted port codes were inverted in seven instances indicating a reverse in origin and destination (see tip in For and From the Field, Page 4).

- Of the 77 tags we analyzed, all had valid Consignor DODAACs. In four instances the write site used an invalid DODAAC in the Consignee DODAAC field; however, in those four instances we were able to locate the receiving activities DODAAC from the Commodity (Doc#) and/or TCMD (TCN) data fields.

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**Using Google Earth on the RF-ITV Tracking Portal**

AMIS and other organizations have obtained Certificates of Net-Worthiness (CoN) for use of Google Earth on Army PCs. This documentation is published on the NETCOM website for Google Earth Pro and Earth Plug-In 6.x CoN Cert201315576. To download the PDF document click or copy the below link and paste it into your browser:

https://west.esps.disa.mil/netcom/sites/nw/CoNApproval/PublishedC ons/Cert201315576.pdf

The ATO for the NGS Google Earth Plug-in is available from the RF-ITV Tracking Portal. Users of the RF-ITV Tracking Portal should be able to have their local NECs and/or IMO download and install either of these Google Earth options to their PCs. To allow us to follow up, if you encounter any difficulties please contact:

- Mr. Robert Carpenter
  - robert.f.carpenter.ctr@mail.mil
  - (703) 545-2974, DSN (312) 865-2974

- Mr. Jose GonzalezLatorres
  - jose.i.gonzalezlatorres.ctr@mail.mil
  - (703) 545-2978, DSN (312) 865-2978

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**TIPS Write Product Key**

The Total Asset Visibility (TAV) In-Transit Processing Station - Write (TIPS-Write) software version 4.3.5 comes with a product key solution that has been implemented to prevent unauthorized installation and execution of the RF-ITV TAV TIPS Software. In order to install the software, users must call the RF-ITV Helpdesk to obtain a product key for installation. Without a product key, the software cannot be installed.
TC-AIMS II Training

The 7.0.1 TC-AIMS II Interactive Multimedia Instructions (IMIs) and related printable booklets on how to logon and use the TC-AIMS II software are now available on the TC-AIMS II training portal. These IMIs will educate users on how to Launch the Application, Register CAC and Logon, Change the User Password, use Citrix Client for Road Management, and Access RS0I. The direct URL to these 7.0.1 Logon IMIs is:


The 7.0.1 Steps to Building a Convoy IMI and related (printable) booklet is now available for review/download on the TC-AIMS II training portal. The direct URL to the IMI (.swf file that will play in web browser with adobe flash player installed) is:

https://software.forge.mil/sf/docman/downloadDocument/projects.tc_aims_ii_training/docman.root.tc_aims_ii_imis.7_0_1_unit_move.movement_planning/doc64582

Site Analysis: (Cont)

- In 44 instances the write site used the 86th Logistics Readiness Squadron Receiving Unit (DODAAC FB5612) at Ramstein Air Base as the Consignee vice the actual requester/receiver of the material. In all 44 instances the requesting unit’s DODAAC was available in the Commodity (Doc#) and/or TCMD (TCN) data fields.

- Excellent commodity data such as Document Number, Transportation Control Number (TCN), National Stock Number (NSN), Nomenclature, Quantity, and Unit of Issue (U/I) were found on all 77 shipments. Complete commodity data allows users more options for query searches and provides more complete data sharing with other ITV systems.

- DOD has adopted and approved a strategy to transition from the ANSI 256 active RFID tags to the ISO 18000-7 standard by the end of 2014. We noted from our data sample that the write site had used 100% ISO RFID tags during the month of October.

- During the analysis the POC information (name/email/phone) were updated to reflect the current write site POC, and the interrogator Name/Description/Location were adjusted to reflect proper naming convention policy/rules. Using Goggle Earth, the latitude and longitude were plotted and found to be correct.

For and From the Field

Kind of Simple...But, Two Easy Mistakes you Can Make

The POE/POD flip-flop (just getting them backwards). Port of Embarkation (POE) is where your shipment or unit move starts its journey and the Port of Debarkation (POD) is where your stuff gets off the boat or plane. An easy way to remember is to use the ‘D’ in POD as destination for where the gear is going.

Consignee/Consignor DODAAC confusion. The Consignor is the unit sending the shipment and the Consignee is the unit receiving the gear. Try and remember the hard ‘E’ in “receive” sounds like the hard ‘E’ in “Consignee.”
RF-ITV Tips and Tricks

Iridium SIM Card Procedures

Router-Based Unrestricted Digital Internetworking Connectivity Solutions Point-to-Point Protocol (RUDICS PPP) services ONLY

The following procedures are designed to assist the Iridium service requester to process their requisition in conjunction with the local Telecommunication Control Officer (TCO) and to create an online Defense Information Systems Agency (DISA) account allowing administration of Iridium Subscriber Identity Module (SIM) cards (Ordering, Activation and Deactivation).

The main website, DISA Direct, is actually a portal for several DISA functions, not just Iridium SIM card accounts. The following steps should help to avoid the many links not required for ordering Iridium SIM cards for the RUDICS PPP.

Step 1: The requester will contact their local TCO to determine if there are local requirements prior to establishing a DISA Direct account and obtain any information needed to establish an account.

Step 2: Visit the Main DISA website:
https://www.disadirect.disa.mil/products/ASP/welcome.ASP

Step 3: Click on “Getting Started” (First choice on the menu to the left, direct link provided below)

Step 4: Under Registration Center, Click on Create Userid

**Note: You will need to know the following to create a User ID!

a) Select an agency.

b) Select an organization.

c) Select a rank/title.

d) Enter the desired password.

e) Enter the phone number.

f) Enter user email and/or organization email addresses.

g) Enter the mailing addresses.
RF-ITV Tips and Tricks (Cont.)

Step 5: Under Registration Center https://www.disadirect.disa.mil/login/asp/login.asp, Click CAC Registration
Select the Request New Role link to request Registration Official Role and other Authorized Official Roles.

Note: Your agency, organization, and the names and phone numbers of your supervisor and security officer
are required in order to establish a role.

Step 6: To order Enhanced Mobile Subscriber Service (EMSS) via DISA Direct Order Entry select the Telecom
Request (TR) link located on the left side under the Order Entry section. Next select the Create TR link. Once the
link is selected you will be presented with a page to indicate the type of service required. To order EMSS simply
select the EMSS (Iridium) option and click Continue. Confirm your selection and select Continue again. All
mandatory fields are indicated by an (M). These fields must be completed before submitting the request.

You have now entered the EMSS TR. The EMSS service options are categorized by New Services, Start Action and
Uncompleted Requests. Select an option and click the Continue button.

If the Start Action is selected, a page is presented for entering information pertaining to the services you wish to
order. Once completed, click Save as Draft, if you wish to return later and finalize, or Continue. If the Continue
button is selected, you will automatically be guided through the TR. You will notice the color-coded tabs on the
left of the TR pages. The red tabs signify that those pages contain mandatory information that must be entered
before the TR is submitted. Once all mandatory information is entered the tabs will turn green. The gray tabs
indicate the pages have display information only or pages containing optional fields. It is recommended that all
tabs be reviewed and that even optional information be completed, if known. Once all tabs are reviewed and all
mandatory information is completed the tabs will be green to indicate the page has been reviewed and completed.

Review the overall request on the Summary tab. The summary page includes the routing information in the
sequence the TR will be routed, once the TR has been submitted. This page also offers the capability of adding
additional information recipients to the TR email. Once you have finalized the request, click the Submit button to
begin the routing.

After the TR has been successfully routed through the Agency’s routing matrix, a Telecommunications Service
Request (TSR) is generated and emailed to the appropriate DISA action activity and all email addresses indicated
on the summary page. To track the requirement status, utilize the Track TR link found on the TR Home page or
the Order Status section on the DISA Direct Home Page.
RF-ITV Tips and Tricks (Cont.)

Activate/Provision SIM

**Note:** When filling out the RUDICS PPP request form, make sure the requester’s POC information is entered as the one being responsible for the SIM(s).

**Step 1:** Once the requester’s Iridium SIM arrives, the TCO must activate it by contacting the General Dynamics customer help desk, COM: 480-726-1048/ DSN: 312-282-1048. The numbers listed on each SIM must be provided to the help desk.

**Step 2:** The TCO will fill in the Router-Based Unrestricted Digital Internetworking Connectivity Solutions (RUDICS PPP) provisioning request form though the DISA website: [https://inah.pac.disa.mil/home.shtml](https://inah.pac.disa.mil/home.shtml)

Information Required:

a) SIM(s) will only be used for Data services and not Voice.

b) **IMPORTANT:** All Iridium SIMs will be provisioned for **RUDICS PPP services ONLY**.

Testing

**Step 1:** Insert the SIM into the Iridium modem with all equipment connected and configured for a controlled test site.

**Step 2:** Using the RF-ITV Tracking Portal, RF-ITV Documentations link, [https://cac.national.rfity.army.mil/shiptrack/documentation.do](https://cac.national.rfity.army.mil/shiptrack/documentation.do), access the RF-ITV Iridium Satellite Modem Configurations Document. Create a Dial-up Network (DUN) on your Windows site as per the instructions in the document. Perform a dial out connection using the Iridium number provided in the Iridium Configurations Satellite Modem document, to register the Iridium SIM on the network.

Troubleshooting

**Note:** If unable to connect and register the Iridium SIM on the network use these troubleshooting methods:

**Step 1:** Ensure the Iridium Antenna has a clear line of sight and is not obstructed by any objects.

**Step 2:** Ensure the Dial up Network connection (DUN) is using the correct dial out number provided in the RF-ITV Iridium Satellite Modem Configurations Document.

**Step 3:** Navigate Windows: Start Button/Control Panel/ Phone and Modem. Query the Iridium Modem, ensuring the computer can locate the Iridium Modem.

**Step 4:** Contact the Iridium Help Desk, 1-808-653-0010, and confirm with the help desk that the SIM(s) (used the number on the module) have been activated and that they are provisioned for the **RUDICS PPP server for data upload only**.

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**RF-ITV Global Help Desk (GHD)**

<table>
<thead>
<tr>
<th>Toll Free: 1 (800) 877-7925</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSN: (800) 877-7925</td>
</tr>
<tr>
<td>Email: <a href="mailto:help.rfity@us.army.mil">help.rfity@us.army.mil</a></td>
</tr>
</tbody>
</table>

Help is available 24 hours per day/7 days per week/365 days per year

**PLEASE NOTE**...the RF-ITV GHD should be contacted before any attempt is made to reach a PD AMIS Field Service Engineer (FSE) in your area.

If you would like to subscribe to the PD AMIS ITV Operations and Training Newsletter, or if you have a noteworthy RF-ITV story, lesson-learned, or short article for publication in the newsletter, please submit to PD AMIS at: [jerry.d.rogers.ctr@mail.mil](mailto:jerry.d.rogers.ctr@mail.mil).
United States Transportation Command – USTRANSCOM

The United States Transportation Command (USTRANSCOM) is a unified functional Combatant Command, responsible for providing support to multiple government organizations, including the following 8 Combatant Commands: Africa (AFRICOM), Central (CENTCOM), European (EUCOM), Northern (NORTHCOM), Pacific (PACOM), Southern (SOUTHCOM), Strategic Command (USSTRATCOM), and the Special Operations Command (USSOCOM).

Mission

The USTRANSCOM mission is to provide full-spectrum global mobility solutions and related enabling capabilities for supported customers’ requirements in peace and war, which is accomplished in collaboration with the following three Component Commands: Air Mobility Command (AMC), Military Sealift Command (MSC), and the Military Surface Deployment and Distribution Command (SDDC); and one Subordinate Command: Joint Enabling Capabilities Command (JEEC).

Background

USTRANSCOM has been designated by the DOD as the single manager for the Defense Transportation System (DTS), and the Distribution Process Owner (DPO). In 2006, the OSD designated USTRANSCOM as the lead functional proponent for Automatic Identification Technology (AIT) in the supply chain, and the lead functional proponent for In-Transit Visibility (ITV) in 2011.

The Logistics Enabling Support Division (TCJ4-T) at USTRANSCOM executes duties as the DOD lead proponent for AIT/ITV. In these capacities, the Division is responsible for DOD-wide AIT/ITV integration, implementation, and synchronization. The Division serves as a conduit for all AIT/ITV related issues throughout the enterprise. These DOD designations enable USTRANSCOM to provide the most effective and efficient support to the war fighter, across a range of operations from humanitarian relief to contingencies, in concert with organizations such as PD AMIS.

Note the following accomplishments and responsibilities:

- USTRANSCOM J4-T (TCJ4-T) is the command designee on all AIT/ITV issues; it serves as the primary advocate for ensuring key ITV enabling requirements are included in the appropriate DOD-level doctrine
- USTRANSCOM recently published the DOD AIT Framework document and helped OSD author the Strategy for Improving DOD Asset Visibility
- USTRANSCOM ensures ITV requirements such as tagging certain shipments with active RFID tags are properly reflected in DOD doctrines such as Defense Transportation Regulation documents and, the Supply Chain Material Management Manual
- USTRANSCOM’s focus includes the participation in commercial and DOD AIT standards committees, in order to ensure ITV requirements are not overlooked in the standards development process
- USTRANSCOM leverages available resources to help evaluate emerging technologies with the potential to improve visibility in deployment and distribution operations, such as satellite-enabled tracking, and long-range passive RFID

TCJ4-T co-chairs the DOD Asset Visibility Working Group (AV WG) with the Office of the Deputy Assistant Secretary for Defense for Supply Chain Integration. The AV WG provides a platform for representatives from DLA, Services, OSD, and Joint Staff (JSJ4) to discuss current and emerging issues and trends related to ITV and Asset Visibility.

In addition to co-chairing the AVWG, TCJ4-T launched the Geographic Combatant Command (GCC) ITV Outreach Program in 2013. This program provides a forum for representatives from the GCC to raise important ITV-related issues for awareness and resolution.

USTRANSCOM’s motto is “Together – We Deliver”, and they do, every day. ITV helps to support their mission in two primary ways. First, the ability to track materiel movements gives customers confidence in the fact that their shipments will arrive when expected, which gives business partners the advantage of being able to focus on other aspects of the mission. Secondly, USTRANSCOM utilizes ITV data to assist with the process of managing transportation in the DOD. For example, when the Pakistan Ground Line of Communication was closed to
DOD cargo due to a diplomatic issue in 2010, USTRANSCOM was able to leverage ITV data to redirect en route shipments to Afghanistan through the Northern Distribution Network (NDN).

Training

Training users on AIT/ITV is a continuous process. TCJ4-T participates in exercises such as TURBO CHALLENGE, and NORTHCOM’s VIBRANT RESPONSE in order to train exercise participants on ITV hardware and software tools and techniques. TCJ4-T has also provided assistance to the Army and Air Force as they developed training modules for their logistics courses.

Organization

The DLA system known as Asset Visibility or AV was recently incorporated into the Integrated Development Environment (IDE) Global Transportation Network (GTN) Convergence (IGC) which is managed by TCJ3-I and is DOD’s authoritative source for ITV data, merging the supply system data resident in AV with the data from transportation systems, commercial carriers, and visibility systems such as the RF-ITV Tracking Portal. This combination gives users an integrated view of supply and transportation data, along with location data created by satellite-enabled tracking systems and the active RFID network.

USTRANSCOM is designated as the lead for Deployment & Distribution Joint Capability Area 4.1-related requirements for the Global Combat Support System – Joint (GCSS-J). This is a Joint Requirements Oversight Council (JROC)- approved program that focuses on joint logistics planning and control of logistics missions and operations. TCJ4-T executes those duties to include integration, implementation, and synchronization efforts throughout the Joint Deployment & Distribution Enterprise (JDE). GCSS-J also supports ITV by offering a broad spectrum of tools to include dashboards, reports, and queries within a Logistics Common Operational picture (LogCOP) environment and extracts data from the authoritative data source for deployment and distribution, IGC.

Users with a vested interest in AIT/ITV are encouraged to request IGC and GCSS-J accounts.

Sustainment and Expansion of the DOD’s Active RFID Network

Along with helping PD AMIS to shape the DOD’s network of fixed and mobile active RFID interrogators from a strategic level, USTRANSCOM also touches the network at the operator level. Subject to the operational requirements of the Geographic Combatant Command (GCC), USTRANSCOM components such as SDDC and AMC frequently expand the active RFID network by building out the infrastructure at existing ports/airfields, or during expeditionary port/airfield openings.

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Ongoing USTRANSCOM ITV Initiatives

TCJ4-T is very active in helping users secure the best possible ITV for their mission. For example, in order to help serve CENTCOM’s needs for ITV in areas where the active RFID infrastructure was sparse, they worked to include an option for satellite tagging by commercial carriers responsible for moving DOD cargo via the Pakistan Ground Line of Communication. Inclusion of this expanded functionality in the USC-07 contract gives USTRANSCOM customers the option to add satellite location reporting and intrusion detection services to their cargo movement if required.

The satellite-enabled tracking option is designed as a fee-for-information methodology, whereby the DOD does not own the satellite tracking devices, but simply purchases the information. This ensures the capability is available when needed, while sparing the DOD from the burden of owning and maintaining a costly satellite infrastructure.

As part of an effort to improve visibility and accountability of equipment belonging to Marine Corps Prepositioned Forces, TCJ4-T supported the USMC Long Range Passive RFID (LRpRFID) research and development project at Blount Island Command in Jacksonville, FL. This project has been extremely successful in showing the benefits of LRpRFID in several logistics business processes.

Finally, in regards to the Afghanistan drawdown action, USTRANSCOM provides continued support to the CENTCOM GCC. The Active RFID Migration Working Group (WG) was involved from the onset, working with systems personnel and other WGs on establishing procedures to remove massive amounts of equipment, maintaining visibility of said equipment, without breaking the retrograde.

_article contributed by Rodney Edmonds, RF-ITV Global Help Desk Manager_