www.DoDRFIDsummit.com

The NAVAIR AIT Team

" Focused RFID Applications "
Asset Management Using RFID

Naval Air Systems Command
Integrated Communications and Information Systems Division
Automatic Identification Technology Team
Code 4.5.10

NAVAIR

ITV with Pallets & Containers …

In Transit Visibility Using RFID

Passive RFID

- Pallets, Cases
- EPC Global Gen 2

Active RFID

- Containers, Freight
- ISO Standards

A Proven System for Asset Management…

Benefits of Using RFID Applications

- RFID Inventory Management
- UID Management
- Automated Inventory Management
- Ensures accuracy of data collected
- Application accomplished with COTS hardware
- Software complete & exportable to other users for cost sharing

Federal Flight Deck Officer Program (FFDO)

Pilot Program for Weapons Asset Management

External

- Recent advancements in RFID technology.
- Strong industry and DHS emphasis to realize RFID-based cost savings.
- Movement to IUID standards.

Internal

- Time-intensive manual processes required for weapons management.
- High-volume of transactions and continuing FFDO program growth.
- Requirement for 100% accuracy and accountability.

User Requirements…

Armory/Weapons Training Site Survey

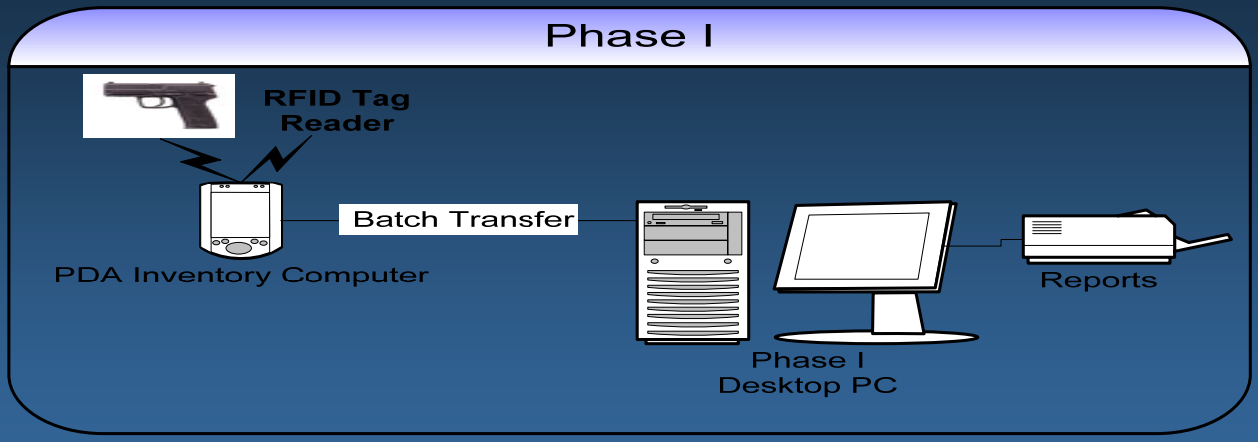
- All weapons are stored in the armory safe every day, in multiple safes, each containing multiple drawers.
- Data stored on weapon is sensitive - RF range is to be minimal at < 6 inches
- Weapons carriers must be re-certified semi-annually at one of 23 or more sites.
- The weapon used during training will be the same weapon deployed into the field.
- Credentials (ID) are associated with the weapon issued.

FFDO RFID Tags & Readers

Completed and operational since July 2005…

Phase I – Armory Automation
Artesia Weapons Management

- Stand-alone system at the Training Center in Artesia
- Initiated weapons tagging and system initialization
- Associated weapon to trainee's credential
- Receive, issue and inventory weapons
- **Software certification by network administrator**



Expanding capabilities to field users …

Phase II – Re-qualification Sites

- Provide FFDO weapon validation at the re-qualification sites via the handheld
  - Allows near real-time data collection
  - Field Sites upload data to NAVAIR web server
  - Data is downloaded to a central system by Armory personnel in Artesia, NM
- On-Site FFDO Re-Qualification Training and Installation
  - Conduct training: 23 Field Office locations
  - Issue hardware and software applications: Lead Firearm Instructors (LFI)

FFDO Asset Management System

- Main screen identifies application title – version info.
- Device battery life in view of the user
- Sidebar displays the main menus within the application

Inventory Management Menu

- Listing of Modules
- Easy Navigation
- View several modules on screen

Conduct Inventory Module (Select Location)

- Location for assets are associated to RFID tags
- Unlimited levels of locations
- Help is available within each module

Conduct Inventory Module (Scan Assets)

- Shows only the assets within the location scanned/selected
- Allows for new assets to be moved into the location
- Clearly shows which assets have been inventoried
- User can “double-tap” on any asset to view more details about the asset

FFDO Re-Qualification Application

- Used at each of the 23 Re-Qualification Sites
- Design allows for easy navigation and use
- Help desk number visible to user
- Uses an HP iPAQ with SD Card/Card Reader

FFDO Re-Qualification Menu

- Customized user interface enhances user experience
- Easy to navigate menu items

FFDO Validate Pilot

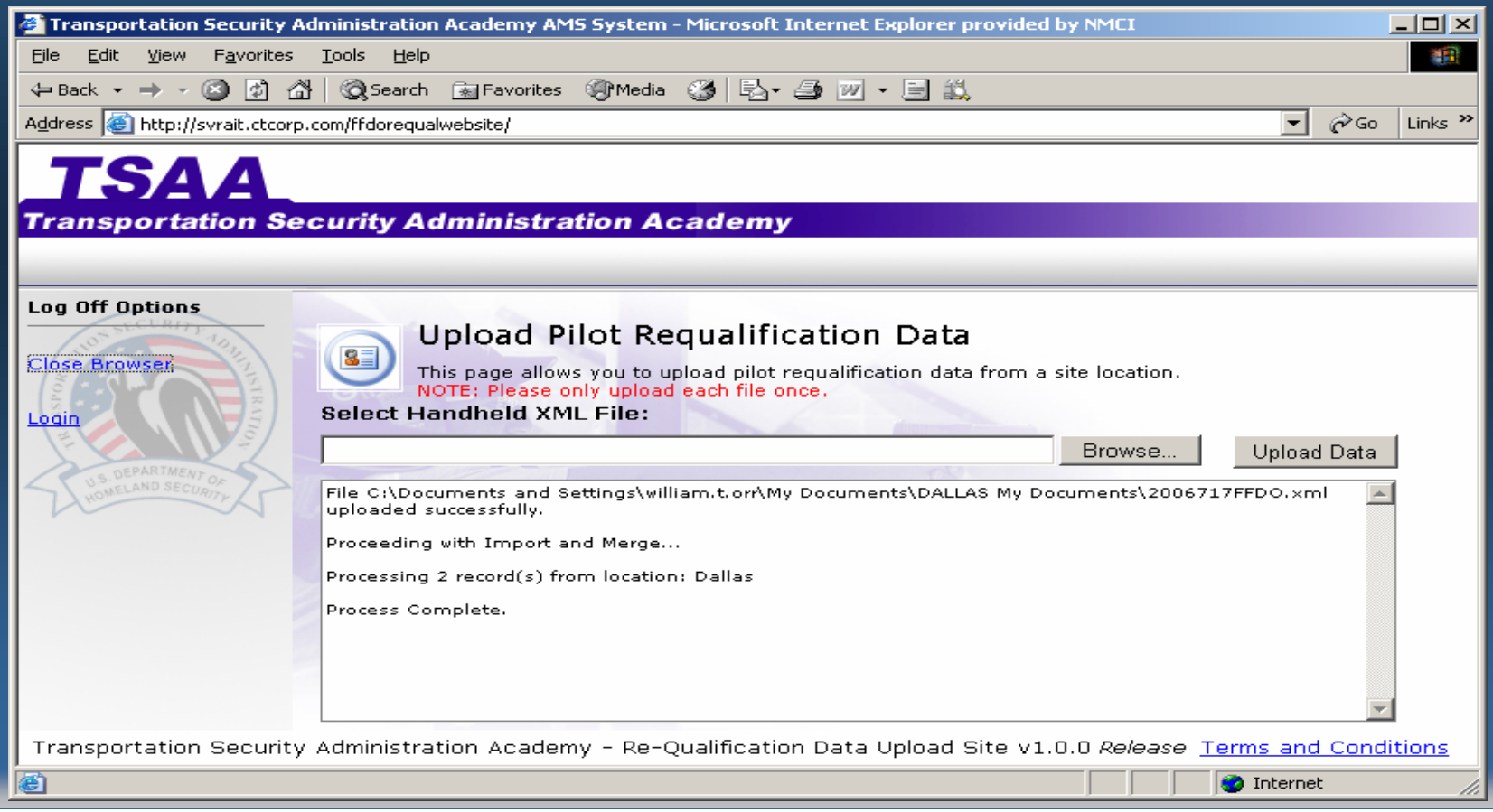
- FFDO Asset/Credential validation
- FFDO Pilot Pass/Fail validation

FFDO Pass/Fail Pilot

- Pilot must re-qualify every six months
- Upon completion of re-qualification, LFI marks pilot as either “PASS” or “FAIL”
- Data is stored on the handheld

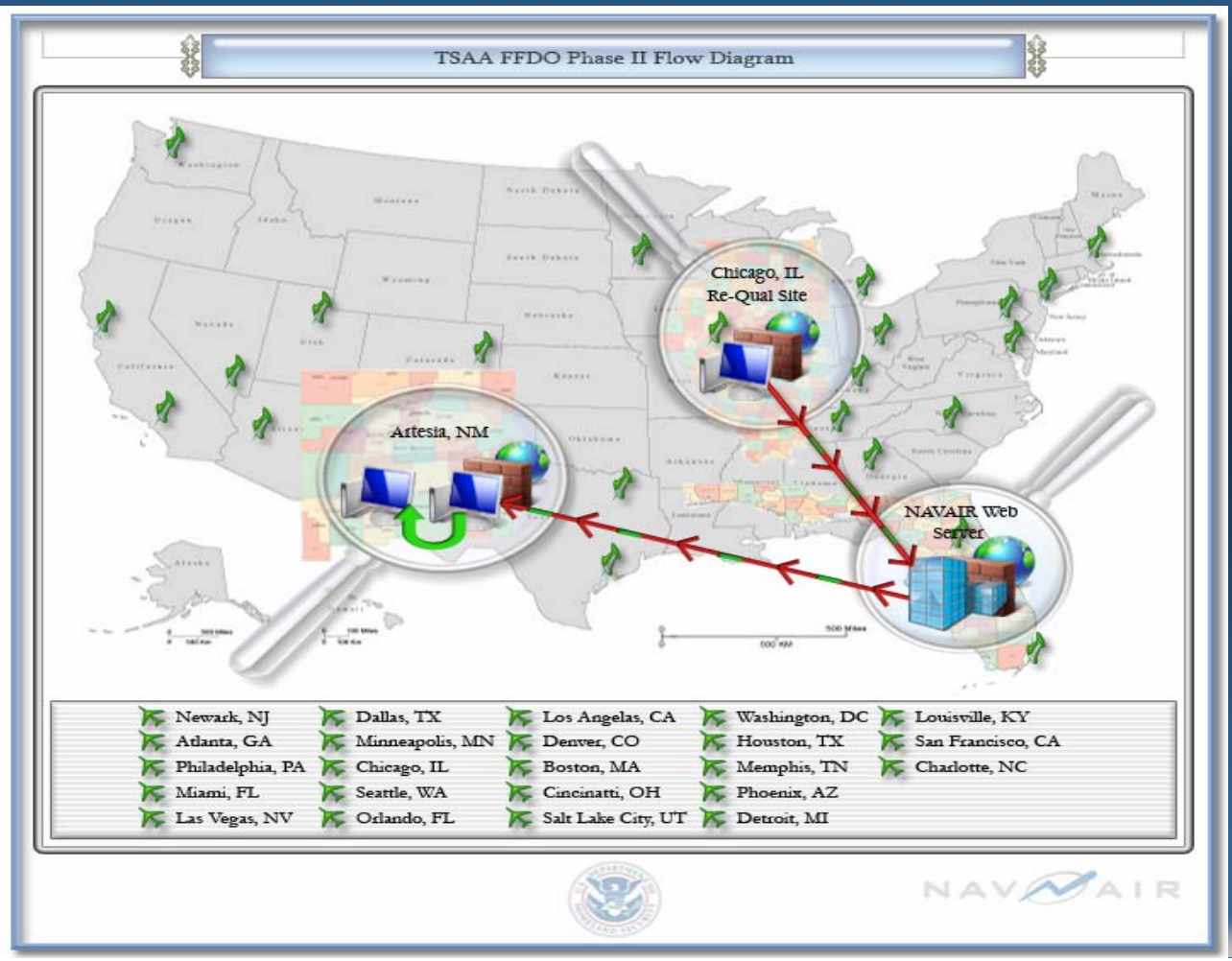
Re-qualification Upload Site

- User uploads re-qualification data to the server in Artesia



Designed Concept of Data Flow…

Phase II Data Flow



Expanding the Use of RFID …

Other RFID Activities

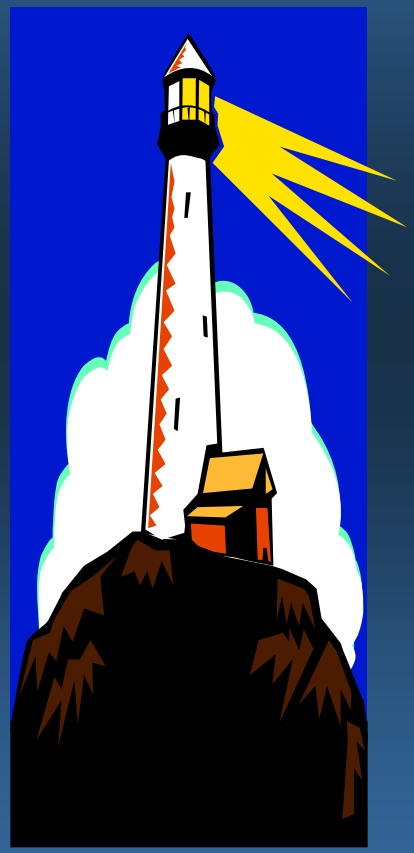
- West Point Asset Management System
- Asset Management for CBRN
- Virginia Class Submarine
- Smart Storeroom of the Future aboard Navy ships
- Environmental Evaluation of RFID Tags for US Army
- DHS Protective Body Armor

Customer support and engineering…

NAVAIR AIT Services

Plan project, satisfy requirements, support after implementation

- Analyze customer requirements for possible AIT improvements.
- Develop cost-effective AIT plan to meet customer requirement.
- Select most effective AIT technology suite(s) for the application.
- Develop/Acquire and integrate software and hardware required.
- Develop customer training to use the AIT application effectively (e.g., TSA Sunflower training.)
- Implement proposed AIT application; refine hardware, software, and training components to satisfy customer.
- Provide post-implementation support (NAVAIR Help Desk.)



NAVAIR Point of Contact

Burt Brooks
DSN: 995-8225
Phone: 301-995-8225
Fax: 301-995-8370
Email: Burt.Brooks@navy.mil

Are there any questions?

Many paths lead to compliance…

DHS FFDO Asset Tag Data

- Follows DoD Guide to Uniquely Identifying Items document dated
- 7 June 2005
- Uses EAN.UCC Application Identifier

Data Elements	Data Value
ISO 15434 Format Identifier	05
EAN.UCC Application Identifier	8004
Issuing Agency Code	0
Company Prefix	642230
Serialized Number	26-123456

- Implemented Construct #1 (Serialization w/ Enterprise Identifier) & Global Individual Asset Identifier (GIAI)

AIT Media: [)>$^{R}_{S}$05$^{G}_{S}$8004064223026-123456$^{R}_{S}$^{E}O$_{T}$

Reader Output: 8004064223026-123456

[This deviates from DoD policy which treats 8004 as an identifier. All identifiers are overhead and stripped away from the output.]