Background

Automatic Identification Technology (AIT) is the basic building block in the Defense Department's efforts to provide timely asset visibility in the logistics pipeline, whether in-process, in-storage, or in-transit. AIT media includes barcodes, radio frequency ID, and satellite tracking systems, smart cards/CAC, optical memory cards, and contact memory buttons. By enabling data collection and transmission to automated information systems (AISs), AIT provides the Combatant Commanders with the capability to track, document, and control the deployment of personnel and materiel.

In 2003, the Secretary of Defense named the U.S. Transportation Command (USTRANSCOM) as the distribution process owner (DPO) responsible for the overall distribution of materiel worldwide. Then in 2006, the Office of the Secretary of Defense for Acquisitions, Technology and Logistics (OSD[ATL]) designated USTRANSCOM, in its role as the DPO, as the lead functional proponent for radio frequency identification (RFID) and related AIT implementation within the DoD supply chain. Subsequently, in May of 2006, the duties of the DoD Logistics AIT Office were transferred from DLA to USTRANSCOM. A Memorandum of Agreement transferring AIT responsibility was signed on 15 May 06. As a result, USTRANSCOM reorganized to form an Asset Visibility Division under the direction of the TRANSCOM J5/4. The new division was a careful blending of functional and technical experts throughout USTRANSCOM and the DoD Logistics AIT Office.

Prior to the formation of the USTRANSCOM Asset Visibility Division, much progress had been made in AIT. A brief summary of how we got to where we are today follows. .

In January 1997, the Deputy Under Secretary of Defense for Logistics and Material Readiness (DUSD (L&MR)) established a task force to develop a Concept of Operations (CONOPS) for logistics processes that required tracking of materiel through the logistics chain. The AIT Principals approved the resulting Logistics AIT CONOPS in April 1997, followed by approval from the Under Secretary of Defense for Acquisition and Technology (USD (A&T)) on November 12, 1997. The CONOPS describes the DoD vision for attaining an optimum mix of AIT technologies to allow the efficient capture, aggregation, and transfer of data and information in near real time.

In September 1997 the DoD designated the Defense Logistics Agency (DLA) as the Executive Agent to develop and implement the DoD Logistics AIT Program. The DoD Logistics AIT Office was chartered to represent the Executive Agent with the mission to promote, manage, coordinate, and document the integration of AIT applications in the DoD logistics community, worldwide. The DoD Log AIT Office operated as a joint organization, administratively supported by DLA, with guidance from the DUSD (L&MR) and the Joint Staff Director for Logistics (JSJ4).

Implementing the AIT Backbone

In 1998, the DoD Logistics AIT Office assisted AIT lead organizations in implementing logistics AIT operational prototype scenarios in Europe, managing the DoD AIT architecture, identifying

a mission-effective and cost-efficient suite of AIT capabilities, and directing and executing implementation. The prototype comprised four scenarios: Unit Movement, Commercial Seavan Movement, Air Movement, and Ammunition Movement. The AIT Office evaluated these activities in two reports: Evaluation of the Logistics Automatic Identification Technology (AIT) Operational Prototype (March 1999), and Resolute Ordnance Movement Evaluation (May 2001).

In 1999, the AIT Office assisted in developing an AIT infrastructure in the Pacific theater for Exercise Foal Eagle, to deploy forces from multiple areas in the continental United States and overseas in defense of the Republic of Korea. The Office provided program management support and evaluated AIT efficiencies for tracking unit deployment and logistics sustainment activities. The report, Evaluation of US Pacific Command Automatic Identification Technology (AIT) During FOAL EAGLE 99, was published in April 2000. During 2000 and 2001, the AIT backbone was expanded to support the USCENTCOM and USSOUTHCOM areas of responsibility. The DoD Logistics AIT Office assisted USSOUTHCOM and NAVICP in coordinating the use of RFID tags to track Plan Colombia counter-drug supplies and equipment.

Between 1998 and 2000, DoD Logistics AIT Office activities resulted in an increase in the number of AIT-enabled sites from 12 to more than 500. With worldwide AIT implementation efforts well underway, the AIT Office is refocusing the DoD AIT program vision to incorporate AIT across the supply chain, including acquisition, maintenance, and disposal/reutilization activities. In this connection, the AIT staff is responsible for preparing AIT policy for DoD and ensuring its inclusion in appropriate DoD regulations. In March 2000, the Under Secretary of Defense for Acquisition and Technology approved the DoD Implementation Plan for Logistics Automatic Identification Technology proposed by the DoD Logistics AIT Office. The plan provided overarching guidance and direction to the combatant commands, Military Services, and Defense Agencies for fielding and employing the suite of AIT across logistics applications.

Developing a Foreign Military Sales (FMS) Prototype

At the request of DLA (J-34) in 2001, the DoD Logistics AIT Office took the lead in developing an FMS Prototype for an AIT-enabled AIS to automate business processes at Saudi freight forwarder sites in Berkley Heights, New Jersey and Wilmington, North Carolina. Once completed, the prototype will automatically capture source data and transactions for Government-provided materiel, thereby reducing FMS-related supply deficiency reports.

Supporting and Testing Satellite Tracking

In 2001, the AIT Office coordinated tests of GPS-enabled VISTAR MT2000 terminals and related mapping and messaging capabilities for the Marine Corps and USCENTCOM in locations throughout the U.S. Using that success, AIT staff worked with regional satellite providers VISTAR (U.S.), Star Track (South Africa), Data Star (Saudi Arabia), and satellite-related software developer, Corp Ten, to coordinate the use and testing of MT2000 terminals during Exercise Bright Star 2001/2002. The AIT Office is also working with the National Office for Integrated and Sustained Ocean Observations and Predictions (Ocean.US), DISA, JSJ4, the Marine Corps, and other organizations to develop and test GPS-enabled satellite terminals for use with the worldwide Iridium satellite constellation.

Enabling the Common Access Card (CAC)

Working closely with CAC and Smart Card Offices and logistics staff from the COCOMs, Services, and other agencies, the AIT staff is integrating smart card technology into business processes that include manifesting, personnel tracking, deployment readiness, materiel accountability, logistics services eligibility, health records, and personal finance. The effort includes identifying logistics requirements and joint logistics applications that will function with the CAC, identifying logistics data elements, and coordinating space on the CAC to effectively support joint applications. Completed tasks include identifying and prioritizing COCOM requirements for initial CAC functionality, obtaining two-year approval from the Smart Card Senior Coordinating Group (SCSCG) to add data elements to the CAC, documenting follow-on community-wide requirements, and identifying applications for potential CAC enablement.

The AIT Office staff represents the CAC Logistics Function Community Panel on the CAC Biometric Working Group, run by the Biometric Management Office (BMO). The AIT staff is working on the logistics biometric requirement identification to be used with the CAC, and is monitoring the development of a proposed CAC biometric technical solution that the BMO will recommend to the SCSCG as a DoD-wide enterprise solution. Recently, DLA requested the DoD Logistics AIT Office to coordinate the use of a smart card with biometrics to develop a prototype for fuel distribution in conjunction with the Biometric Fusion Center.

Coordinating DoD Logistics AIT Standards

Because the use of AIT crosses COCOM, Agency, Service, and industry boundaries, there is a critical need for consistent use of ANSI, ISO, UCC, and EAN standards. The AIT staff coordinates AIT standards for all of DoD by participating on industry, ISO, and NATO standards committees. This allows DoD to capitalize on the growing body of commercial AIT standards, culminating in the Defense Department's formal adoption of ISO standards for data syntax and semantics. To date, the USD (A&T) has approved ISO standards for high capacity AIT media, including 2-D barcodes, RFID tags, optical memory cards, and touch buttons.