# Radio Frequency Identification (RFID) Item Level Technology for Military Clothing and Individual Equipment

## PROBLEM/OBJECTIVE

The purpose of this effort is to identify and implement cost effective item level RFID technology solutions at military Clothing and Individual Equipment (CIE) manufacturers. The technology will improve asset tracking, improve inventory accuracy and reduce the time required to locate urgently needed or unserviceable assets. In addition the technology allows for improvements and efficiencies in all nodes of the military CIE supply chain.

## ACCOMPLISHMENTS/PAYOFF

***Process Improvements***: The technology solution has been shown to transform inventory control, materiel management, distribution and warehousing so critical items can be tracked and associated item information made available throughout the supply chain. The technology allows processes associated with manufacturing, warehousing, storage, receipt, shipment, and issue to be automated with item level RFID technology. RFID technology can directly impact the industrial base and DLA's ability to support the warfighter by providing immediate visibility of military clothing and individual equipment (CIE) items throughout the DLA CIE supply chain.

***Implementation / Technology Transfer:*** As the largest buyer of military CIE products, DLA Troop Support, Clothing & Textiles (C&T) Directorate plans to expand the technology to all Services' recruit bag items. The recent Army Combat Uniform solicitation included a requirement for item RFID using contract language developed during this project. As additional items are added that require item RFID, manufacturers will contract directly with proven commercial RFID service providers to implement. To date, the technology has been implemented at 14 C&T manufacturers.

***Expected Benefits:***

- increased process automation and efficiencies,
- improved accuracy in packaging and shipment, accountability/accuracy,
- improved near real time asset visibility,
- increased accuracy and efficiency in inventory accounting,
- increased agility to move required assets to where they are critically needed.


**Example of Passive RFID tag on Military Clothing**

Since project inception, the costs of individual RFID tags and associated equipment and implementation costs for military CIE manufacturers have dropped significantly and inventory discrepancies at a recruit training center were reduced from 4.9% to 0.2%. Phase II of this project will develop an advanced implementation protocol that can quickly and cost effectively deploy item level RFID capability to the remaining 300 C&T manufacturers.

## TIMELINE / MILESTONE

Phase I: May 2009 - May 2011
Phase II: May 2011 - May 2013

## FUNDING

| Source | FY 09 | FY 10 | FY 11 | Total |
|---|---|---|---|---|
| IBIF | $ 998 K | | | $998 K |
| DLA | $ 400 K | $131K | $578 K | $1,109 K |
| Total | $ 1,398 K | $131K | $578 K | $2,107 K |

## PARTICIPANTS

- DLA R&D - Customer Driven Uniform Manufacturing
- DLA Troop Support C&T Directorate
- Advantech, LMI, Modulant
- Military CIE Vendors
- Travis Third Party Logistics Center
- Lackland Air Force Base