



IUID

Item Unique
Identification

Small Arms Marking at Anniston Army Depot: PM Soldier Weapons

**Unique Identification Policy Office
Integration Project**



To improve the identification, tracking, and management of Department of Defense (DoD) assets, the Office of the Secretary of Defense has funded multiple projects, including the Small Arms Marking at Anniston Army Depot: PM Soldier Weapons Integration Project.



Description

Project Manager Soldier Weapons (PM SW) implemented an outcome-based Item Unique Identification (IUID) pilot project to pursue IUID marking of in-service small arms that go through Anniston Army Depot (ANAD). End-to-end integration of IUID marking, Automated Information Systems, and Automatic Information Technology (AIT) was performed using the M-9 and M-240 product lines in order to identify and evaluate marking methods and costs of small arms IUID marking.

Background

The small arms project was performed in three distinct phases. Phase I featured planning and scheduling. An Integrated Process Team (IPT) was established with representatives from the entire Army small arms community (PM, engineering, logistics, depot, contracts, and users) as well as other service and OSD participation. The IPT identified roles and responsibilities and conducted a site visit to Anniston.

Phase II included qualification and validation of different marking techniques. It was designed to determine how the small arms marking could be done in terms of the optimal placement on the weapons and processes used. The US Army Armament Research Development and Engineering Center (ARDEC) performed Environmental testing on M9 pistols and M240 machine guns. This Qualification testing included various Army standard and accelerated environmental tests. ANAD marked the weapons in several places to determine optimum 2D data matrix size, type, and mark placement. Once testing was completed and optimal marking type and placement was finalized, engineering data were provided for update of the Depot Maintenance Work Requirements (DMWR) manual and then staffed for approval.

Phase II was completed in April 2006. Adhesive tape with clear coat was determined to best meet the requirements. In May 2006 the results were briefed to the Government and the small arms industry community.

Phase III established the UID marking capability at the depot and all aspects of UID implementation were executed, including:

- ◆ Automated Unique Item Identifier (UII) generation
- ◆ Marking of weapons using adhesive label with clear coat
- ◆ IUID instructions included in updated DMWRs and weapon marking locations provided to ANAD by PM SW and TACOM-RI
- ◆ Verification of mark in accordance with current version of MIL-STD-130
 - ❖ Re-verification and re-labeling as necessary
- ◆ Registry software and broadband access for managing and submitting UIIs to the DoD UID Registry
 - ❖ Registry submissions incorporated weapon Life Cycle Events

This final phase also provided the information to determine ANAD's mark-time and mark-cost requirements per weapon.

Benefits & Achievements

As a result of this project, ANAD was able to determine:

- ◆ The optimal marking production process/location of the IUID data matrix mark
- ◆ The time/cost needed to mark each part/weapon
- ◆ The overall cost throughout the marking process

Information gleaned from the results of this pilot project will enable U.S. Army AIT management and implementation teams to develop financial and strategic plans necessary to execute UID integration on a larger scale.

Marking methods, procedures and results for this pilot were provided to industry, OSD, Air Force, Navy, SOCOM and USMC, with most of the services represented on the IPT. Pilot results were briefed to industry via an NDIA briefing and through direct coordination with PM SW's weapons vendors. Vendors conducted their own internal analysis for marking weapons with IUID, but most ended up adopting the methods and procedures similar to what PM SW tested. All newly procured weapons are being marked in a similar manner, such as with TESA tape, metal tags, or a combination of both using a clear coat for added durability.

Soldiers in the field will find it hard to tell the difference between a marked new procurement weapon and a weapon marked at the depot via overhaul as the labels and methods used are very similar and have the same look and feel.

All PM SW new-procurement contracts contain the IUID clause and vendors have entered over 35,000 weapons into the DoD IUID Registry as a result of this pilot.

Additionally, the small arms IUID project formally established a means to determine requirements necessary for uniquely identifying small arms within an Army depot and created the knowledge infrastructure that can be transferred to other U.S. Army weapons systems complying with the UID mandate.

Contact

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