



**IUID**

Item Unique  
Identification

# **Amphibious Assault Vehicle at Marine Corps Logistics Base Barstow**

## **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 Amphibious Assault Vehicle at Marine Corps Logistics Base Barstow Integration Project.



## **Description**

This Unique Identification (UID) part-marking project performed at Marine Corps Logistics Base Barstow, California established a UID implementation process within the depot and marked Amphibious Assault Vehicles in accordance with DoD UID policy. During the marking process, the project team examined and studied multiple implementation methods to establish lessons learned and best-practices for use in future depot implementation efforts.

This project was performed in two phases. The first phase tested numerous different marking and training methods to determine the best approach for the AAV and phase two applied the selected approaches on the production floor, where AAVs were officially marked with Unique Item Identifiers and registered in the UID Registry.

## **Process**

Barstow performed each UID implementation step with the goal of maximizing knowledge gained:

### *Drawing Changes*

The Barstow team identified parts that required changes in engineering drawings to reveal: 1) how easy or hard it is to change a drawing, 2) how expensive it is to change a drawing, and 3) what detail needs to be included in the drawing in order for shop floor personnel to accurately mark a part.

### *Disassembly and Reassembly of Items*

The AAV project team sought parts that required disassembly and reassembly operations in order to reveal and examine the creation and adjustment of UID parent-child relationships between parts and their next-higher assemblies.

### *Marking Parts*

The Barstow team also used as many of the generally accepted UID marking technologies as possible (dot peening, laser etching, chemical etching, inkjet marking, etc.). This process allowed the project team to learn as much as possible about each technology's cost, ease-of-use, and applicability in the DoD depot environment.

### *Reading UID Marks*

After marking parts in many different manners, the project team scanned as many different types of parts as possible – different sizes, materials, colors, finishes, and shapes. Parts were also read under a wide variety of conditions, including in poor lighting, bright lighting, outside, and in tight spaces. This helped determine the time and cost of reading UID DataMatrix marks and the performance, reliability, and ruggedness of mark readers.

### *Selecting an AIS*

Prior to marking, the Barstow project team chose to utilize the Automated Information System (AIS) previously established at the Marine Corps Maintenance Center in Albany, Georgia. This was used to store UID data and transfer it to the UID Registry.

### *Training*

Training was provided to depot personnel on how to operate all UID equipment. The project team then recorded what type of training works best, how much training is necessary, how much it costs, and how often employees need refresher training.

### *Documentation*

All UID procedures performed were documented to communicate and specify to Barstow personnel what to do and how to do it. Following use of the initially provided documentation, depot employees could then provide feedback on the directions, allowing the actual user to guide where and how instructions should be documented so that the right people have access to them at the right time.

Using the knowledge gained through their examination-heavy initial phase, the Barstow AAV part-marking project established a capability for the base to identify the best processes and approaches for UID application on sophisticated weapon systems. This project will provide lessons learned and allow for more efficient, cost-effective, and precedent-based UID implementation at other depots across the services.

## **Contact**

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