Legacy Equipment IUID Marking on U.S. Navy Ships

Camcode Global Provides Full Service IUID Solutions for Naval Fleet

Background

The United States Navy recognized a need to comply with the Item Unique Identification (IUID) requirements found in Military Standard 130. This standard requires that U.S. Department of Defense (DOD) property be uniquely marked down to the individual item level, establishing item traceability. Marks, including labels, must last the life of the item on which it is affixed and contain information such as the asset's serial number, part number and a unique item identifier (UII). Each item's unique information is then scanned and stored into the DOD's IUID Registry. Information such as an item's purchase date and price, history of repairs, and location in the field can then be accessed in the registry. This information is then used to track and manage the item throughout its lifecycle, streamlining inventory and maintenance processes.

Since 2006, Camcode Global has been engaged in IUID marking projects for the U.S. Navy to support its compliance needs. Camcode Global has not only produced and installed IUID marks for the U.S. Navy projects, but also developed processes to accurately collect and deliver item data to the U.S. DOD's IUID Registry.

Objective

Camcode Global's objective was to support the U.S. Navy with its ongoing IUID requirements. This included the production and installation of IUID labels for the 14 ship fleet of T-AKE Dry Cargo Supply ships, the T-AGM 25 Radar vessel, the USNS Cape Cod, and the 10 ship fleet of Joint High Speed Vessels (JHSV). Ships contain upwards of 8,000 different pieces of legacy marine equipment, from valves to engines, which must be uniquely identified.



Challenges

Applying thousands of IUID labels on legacy equipment aboard a ship more than 300 yards in length and 10 stories high requires logistics management, attention to ship protocol, and safety and technical proficiency in identifying assets. Many of these ships are in states of repair and upgrade during Camcode Global's work, making safety and team management a priority. In several instances, Camcode Global was only given a



30 days' notice of the work location, requiring flexibility and responsiveness in planning and scheduling.

Solutions

Camcode Global's IUID label production and installation processes began with logistics planning and project management. This included collaboration with the U.S. Navy's NAVSEA Program Office and included data collaboration, production of durable ship-worthy labels, organization of installation teams and tools, installation process planning, including asset verification, and then reporting and registering IUID equipment items.

Each project required management of sets of data matched to specific locations on each ship to enable efficient use of personnel. The data was reviewed and cleansed so that a Construct 2 UII, per MIL-STD 130, could be created for each asset. Then, the data was organized to coordinate the label production with the order of installation. Since Camcode Global manufactures all the IUID labels used in marking the assets, the company can effectively integrate label production and label packaging to accommodate any project profile. Once produced, IUID data labels were organized by location or subsets of equipment types within locations to enable onsite teams to work efficiently. This exclusive system identifies the proper equipment to mark and accurately matches the proper mark to the equipment.



Camcode Global organized and trained the installation team, as well as provided each installer with a kit and process to identify, clean and mark equipment items. Every installed item was verified and documented electronically through a direct scan of the label's 2D code. Data from each day's work was reconciled and compiled, and a full report of marked items was made available to the customer at the beginning of each day.

As part of Camcode Global's IUID label production and installation processes, the company managed all labels very closely for accountability. It was important to keep track of both installed and uninstalled labels to maintain the integrity of the project. All labels were kitted and verified for accuracy. Each team member was responsible for their set of kitted labels. In addition to organization, the kitting offered a built-in manual backup system.

Throughout these marking projects, Camcode Global employed its exclusive Mobile Asset Tagging Solution. This tool provided coordination between any number of marking teams and one common "dashboard" that monitored and coordinated team activity. The dashboard provided a graphic interface that supplied the team leader, as well as the client, with daily information, including the number of assets marked at each location, the percentage of project labels installed, and the specific assets that have been marked, including field representative comments.

At the conclusion of each ship marking project, Camcode Global registered all the installed UIIs and provided a time/date stamped report, as well as a lesson learned report to improve on future marking efforts.

Results

Camcode Global produced and installed IUID labels for all available assets effectively and on time for each of the ships requested by the U.S. Navy. Due to the success of previous projects, Camcode Global is scheduled to provide IUID ship marking services for all future hulls. In addition, Camcode Global is in the planning stages for another eight hull program signifying that Camcode Global has met or exceeded all of the Navy's expectations in previous projects. Overall, Camcode Global has created processes and tools unmatched in the defense industry for completing challenging projects on time and to the customers' satisfaction. In each project, equipment was marked with durable IUID labels, lessons were documented and efficiencies were increased to add value to the IUID initiative.



