

CASE STUDY : U.S. NAVY

PDF 417 Simplifies Shipment Receipt Aboard the USS Enterprise

Shrinking manpower but an expanding mission, the U.S. Navy must do more with less. To improve existing bar code-based logistical systems on land and sea, Naval Supply has deployed a pilot program aboard the USS Enterprise that dramatically simplifies the receipt of spare parts and consumables.

Sailors save as much as twenty minutes per container by scanning the EUCOM 2D bar code shipping label on shipping containers delivered to staging areas by helicopter or replenishment ship. In the past, sailors scanned three linear bar codes off an MIL1348-1A document for each item in the container. Now, all this line-item detail is consolidated into a single 2D shipping label bar code on the exterior of the container reducing the receiving operation to a single scan. The PDF 417 bar code is, in effect, paper EDI, similar to an ASN but without reliance on traditional network.

To accomplish this extraordinary process simplification, the Navy turned to Lowry. Lowry selected the Symbol Technologies PDT3500 2D-bar code terminal. Lowry then ported an old program that was only capable of scanning 1D bar codes. After the PDT3500 passed the Navy's rigorous HERO testing, Lowry made it available to the Navy, along with critical integration services. The hand-held program serves a data collection component of the Navy's Integrated Bar Code System (IBS) inventory management software, which in turn serves data up to the SUADPS accounting system. IBS performs mobile receipt of goods from staging areas throughout the ship and also conducts inventory, location and quality assurance audits within on-board material storerooms.

The solution currently operates on the USS Enterprise as it roams global sea-lanes. Based on initial success, the Navy plans to expand the logistics application on large-deck aircraft carrier and amphibious assault ships worldwide. Ordinance-tracking applications are also envisioned throughout the Navy's surface warfare fleet.

The USS Enterprise application is part of the U.S. Department of Defense-wide AIT EUCOM test program. IBS represents the Navy's shipboard terminus of this DOD-wide test program. Similar "retail" supply room applications exist at land-based Army, Navy, Marine and Air Force bases throughout Europe. Please see the "DOD EUCOM" case study for detailed information on the transportation leg of this total supply chain solution.

Summary: US Navy, USS Enterprise

Application: USS Enterprise uses batch data capture in the receiving and inventory functions of its spare parts and consumables aboard ship. Sailors scan the PDF 417 based EUCOM shipping label upon receipt of materials bound for the store room or direct delivery aboard as a labor saving and accuracy enhancement measure.

System: Lowry-developed solution, including a Symbol Technologies PDT3500 running a batch data collection application, ported from a linear device, interfacing to the Navy's PC-based IBS server that in turn updates the workstation-based SUADPS-RT accounting system.

Environment: USS Enterprise's hanger deck staging areas and the spare parts and consumables store room.

Benefits: The PDF 417 shipping label affixed to shipping container replaces up to twenty shipping documents placed in the container, with each document containing 3 linear bar codes. The label saves up to 20 minutes of labor at receiving time as 60 linear scans are distilled into a single PDF 417 scan.



Client:

U.S. Navy

Application:

**Inventory Management/
Logistic**

Industry:

Government