



UID CASE STUDY: TCOM, L.P.

THE COMPANY

TCOM, L.P. is the only company in the world devoted to the design, fabrication, installation and operation of tethered, aerodynamically stabilized balloons called aerostats, used for surveillance and communications around the globe. For over 35 years, TCOM has provided systems for US and foreign governments as well as private corporations.



THE SITUATION

In order to fulfill a US Army contract as a sub-contractor to Raytheon, TCOM was required to become IUID compliant, meaning that some 300 embedded items within each aerostat had to be serially labeled and registered in order to comply with MIL STD 130.

THE SOLUTION

A2B Tracking Solutions UID Comply!® data management and IUID registration software along with BarTender® enterprise label design software from Seagull Scientific teamed with a Microscan verifier and Zebra Technologies thermal transfer printer have been utilized to satisfy our IUID requirements.

IUIDs come in all shapes and sizes. Take for instance giant helium-filled balloons, called aerostats, filled with sophisticated surveillance equipment and tethered above Iraq and many other locations. When the DoD issued MIL STD 130 the aerostats and every replaceable part associated with them needed to be IUID marked and registered.

Although TCOM's current sub-prime contract requires only one IUID to be passed onto the prime, Raytheon, that parent IUID has hundreds of embedded IUIDs, some associated in a parent/child relationship six to eight levels deep. Anything replaceable must be serialized. Those embedded items or line repairable units (LRUs)

might include the mooring system equipment on the ground or parts for housekeeping electronics.

Lead Production Planner Bryan Peiffer says, "Our first challenge was grasping what IUID is. We initially had small bits of lots of information but no definitive answers to the question." The next significant challenge was to marry the old with the new, namely to implement unique serialized item tracking (IUID) alongside the prevailing corporate culture of non-unique serialized tracking assigned through the legacy MRP system.

FACILITATING CHANGE

In order to facilitate the required changes a TCOM team of representatives worked together on a comprehensive implementation plan. The team was comprised of individuals from the contracts management group, sub-contracts group, program management office, configuration management, production management, quality assurance and materials management.

According to Peiffer TCOM had been marking and serializing units for many years in a manner that did not lend itself well to IUID requirements. IUID would not be required for all designs, but it did not seem ad-



vantageous to mark and serialize in multiple formats. “We looked for ways to work within the parameters of IUID without requiring changes to our legacy designs,” he says. “With a large number of legacy designs it seemed prudent to move on with IUID requirements and incorporate them into our existing serialization specification which is referenced on all of our design drawings. We worked hard to facilitate most of our past requirements while meeting the new requirements of IUID.”

Due to the complexity of the TCOM system requiring IUID and the large number of LRUs revision control is of utmost importance. “Our need for configuration management is not outweighed by our need for IUID compliance,” says Peiffer. “We had to find a method of marking with both IUID and revision level in order to meet the needs of both, a requirement that seemed overwhelming.” That’s when he called on experts from A2B Tracking Solutions to come onsite. “They were great at understanding our situation and showing us how to create a custom label. And their ongoing phone and online support has been outstanding.”

That label utilizes Construct 2 to incorporate the old item tracking number along with the new IUID. It also carries the TCOM logo and human readable information for personnel in the field who may not have

access to a database. Polyester labels were chosen after rigorous testing for pliancy and durability in extreme temperatures.

PUTTING IUID TO WORK

The custom label is used for all new and legacy equipment and applied to deployed equipment when it is repaired or replaced. Major repairs or upgrades of units are sent back to TCOM. When repairs are made in the field, a labeling kit is utilized for opportunistic labeling. Virtual UIDs are assigned to parts deployed prior to IUID marking.

In order to meet their rather demanding requirements, TCOM, L.P. utilizes a dedicated server to run A2B Tracking Solutions UID Comply!® data management software linked with BarTender® enterprise software from Seagull Scientific. The UID Comply!-controlled solution also incorporates Microscan Verifiers and Zebra 105 SL Thermal Transfer printers.

Peiffer says, “IUID seemed insurmountable two years ago. Quite frankly there has been a steep learning curve. Now it is working great, and I can see many distinct possibilities in our environment such as tracking through the fabrication cycle. By using IUID we could get real-time information in logistics, in the shop and in production, and we can become much more productive.”

When asked what advice he would pass along to others Peiffer urges fully assessing needs before rushing into IUID implementation. “Take time to understand what is required and how your implementation is going to accomplish it,” he advises. With a parent IUID the size of a whale and a production facility that ranges over 100 acres, planning for visibility to increase productivity makes all the sense in the world.

To Learn More About UID Comply!®

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