Tego Case Study Aerospace Flyable Parts RFID Tracking

B/E Aerospace Launches High-flying RFID Solution for Greater MRO Efficiency, ATA Compliance

Product Overview

For many commercial airlines and business jet operators, the pressure to reduce operating costs drives them to continually seek improvements in Maintenance, Repair and Overhaul (MRO) efficiency. Frequently, routine maintenance is much more labor-intensive and costly than necessary, particularly when mechanics can spend more time finding and completing paperwork than doing actual repair work.

One particularly time-intensive task is the tracking of aircraft parts, which remain in service for many years across various locations and environments. The ability to reliably track the maintenance and inspection history of each part is vital in order to maximize aircraft availability, meet regulatory requirements and most importantly, ensure safety. To enable this "cradle-to-grave" tracking, ATA Spec 2000 mandates permanent parts identification.

B/E Aerospace, the world's leading manufacturer of aircraft passenger cabin parts, is the largest manufacturer of aerospace parts to date to achieve compliance with the latest 2013 version of the ATA Spec 2000 requirement. The company also is the first to deliver tagged aircraft seats to meet the requirements of the global Airbus Quality Initiative announced last year.

From Nose to Tail

Virtually every type of part found inside an aircraft cabin is manufactured by B/E Aerospace; ranging from seats and life vests, to oxygen systems, galley carts, ovens and chillers. In order to help aircraft manufacturers and airlines more accurately and efficiently record and track data on each part throughout its lifecycle, B/E Aerospace initiated a comprehensive parts tagging program using high-memory radio frequency identification (RFID) technology. The use of high-memory RFID is ideal for tracking aircraft components because each tag can store large amounts of data, and line of sight is not required to read the tags. When RFID tagging is introduced into the MRO equation, cycle time studies show that maintenance and inspection tasks can be completed more than 90 percent faster. As a result, potential malfunctions can be detected earlier, work processes and paperwork can be reduced, unwarranted maintenance and flight delays can be minimized, and compliance with ATA Spec 2000 can be achieved.

After careful consideration, B/E Aerospace selected Tego, Inc. to supply RFID solutions across their global manufacturing processes. The worldwide tagging program, which began rollout approximately two years ago, currently includes a variety of cabin parts tagged with Tego's Largo and Nemo RFID tags, as well as various fixed and mobile RFID readers. Most recently, B/E Aerospace began tagging passenger seats for Airbus aircraft – a high-volume product line, and arguably the most important aspect of the cabin related to passenger experience and comfort.

"Tego demonstrated a clear awareness of the Airbus requirements and the best path to compliance given our production processes," said Dan Buckler, B/E Aerospace director of quality and compliance. "Handheld readers had to be foolproof for use in a production environment, as the tag installation and write/test process needed to be done in 15 seconds per seat assembly."

Smart Assets, Smart Solution

According to Buckler, Tego was chosen for their product cost, demonstrated competency and responsiveness, and the ability to provide a total solution including RFID tags, readers, software, production training and support. Due to the size of the global implementation, scalability was a key consideration, as was training in the use of RFID technology for B/E Aerospace customers.

Another important element in global deployment of the Tego solution was to not only plan for installation of the necessary tagging equipment in various production facilities, but also to allow sufficient time for B/E Aerospace employees to get comfortable using the technology and including it in business processes. Moreover, the company's IT department was integrally involved in management of the additional data that is being stored on each RFID tag.

"As the industry expert for flyable parts tagging, we've worked closely with Airbus and Boeing to understand the work processes and equipment used by major aircraft manufacturers," said Su Ahmad, vice president of sales and co-founder, Tego. "We were able to deliver to B/E Aerospace a fully integrated solution with our best-in-class TegoChip and tags, TegoView software, reader equipment and data management support."

The ongoing ramp up of the B/E Aerospace tagging program will continue over the next few years as additional market-leading product lines are added to the program. Consequently, the world's leading aircraft manufacturers and airlines are better equipped to automate work processes for greater MRO efficiency, and can easily and accurately track the history, condition and status of all the tagged parts.

"Reliable tracking also helps prevent counterfeit parts and unwarranted service, both of which are quite prevalent in the global aircraft industry," added Tego's Ahmad.