

Boeing Outlines Tagging Timetable

The U.S. plane maker says that it and Airbus plan to announce their RFID specification in spring 2005 and anticipates that suppliers will start delivering tagged items six months later.

By Jonathan Collins

June 14, 2004—Adamant that they will not issue an RFID mandate to their suppliers, U.S. aircraft manufacturer Boeing and its main European rival, Airbus, have given the first indication of a timeframe for when suppliers will be placing RFID tags on parts shipped to the two companies' factories.

"Our RFID requirements are not focused today, but they will be defined ultimately within the next year, I am sure," said Kenneth D. Porad, program manager for Boeing commercial airplanes' automated identification program, in an address to the 300 attendees at the [Global Aviation RFID Forum](#). Boeing and Airbus held the event in Atlanta last week to promote the adoption of RFID technology by the aviation and aerospace industries.

Boeing believes that the two companies will be able to issue their RFID requirements by the spring next year and says that their suppliers should be able to RFID tag parts within six months of that announcement.

To help it determine a realistic timetable for RFID, the company is drawing on its experience in integrating bar coding into its supply chain during 2000-2001. "With bar codes, we gave six months notice. Six months would be reasonable [for RFID], and we will be reasonable," Porad tells *RFID Journal*. "We have 3,000 suppliers and, in a broad way, they will comply."

Looking to drive efficiency in the move to RFID, Boeing and Airbus have committed to working together and issuing the same RFID requirements to their suppliers (see [Boeing, Airbus Team on Standards](#)). The companies estimate that they have 70 percent of their suppliers in common.

Airbus says will adopt the same timeframe as its U.S. rival, but that some suppliers are likely to integrate RFID into their manufacturing process well ahead of the aircraft manufacturer's requests. "Some suppliers already recognize this is in their own interest and are preparing to deploy without us asking for it in a contract," said Jens Heitmann, senior manager for system/equipment standardization process and methods at Airbus.

So far the companies believe there a number of technical issues that have to be sorted out before they can issue their supplier requirements. "We don't know what frequency and we don't know what [memory] size tags. We are also waiting for the results of some tests and FAA clarification," said Porad. (See [UHF Tags to be Tested on Planes](#).)

That FAA clarification will address the safety of RFID tags on aircraft.

Both airframe manufactures believe that they will use a combination of passive 13.56 HF MHz tags and passive UHF tags as well as bar codes and human-readable data on smart labels, but they are unable to define that UHF band because unlike in the HF band there are is globally recognized spectrum set aside for its use

and no global standard for UHF tag operation.

The two companies will use the Air Transport Association Spec 2000 e-business standard for data definition in their RFID requirements. (The Air Transport Association is a trade organization whose members consist of major U.S. airline carriers.) The ATA's existing standard specifies how each individual RFID label number will be constructed from a manufacturer's code number, an item serial number and a manufacturer's part number.

Ultimately, for their RFID deployments, Boeing and Airbus are interested in using the Electronic Product Code (EPC) data format defined by EPCglobal, the organization charged with commercializing EPC technology. "The length of data field in our serial number and manufacturer code is not so far away from EPC," says Heitmann.

"Boeing is interested in EPC tagging as the company's military division will have to start using EPC to ship to the U.S. Department of Defense starting January 2005," says Porad, adding that Boeing intends to adopt the same RFID technologies for both its commercial and military divisions.

Boeing and Airbus have not yet defined which items they want tagged first and maintain that they will use RFID tags alongside existing bar code applications. However, requirements for RFID tagging will be based on a criteria that takes into account a part's cost and its ability to be replaced or repaired, as its "dispatch criticality" (the need to deliver the part where it is required immediately) and how long it can be in service before it must be replaced.

The Global Aviation RFID Forum events are open to the public. Interested parties can register online at www.globalaviationrfidforum.com. The next events will be held in Hong Kong in August and Munich in October.

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