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** EXCLUSIVE: The two major commercial airplane manufacturers will hold three global forums for customers and suppliers to prepare the industry for the use of RFID technology to identify major airplane parts.**

By Mark Roberti

May 6, 2004—Boeing and Airbus, which together own the market for large commercial jets, are working together to promote the adoption of industry standard solutions for RFID on commercial airplane parts. The two companies will hold industry forums in Atlanta (June 8 and 9), Hong Kong (Aug. 10 and 11) and Munich (Oct. 19 and 20).

Invitations are being sent to all of the world's airlines, parts suppliers, regulatory agencies and third-party maintenance repair and overhaul shops, which do contracted maintenance on behalf of airlines. The goal is to educate, inform and unite the industry around standard requirements for identifying parts.

Boeing's Porad

"We don't want to issue a mandate, set a date and invite people to comply," says Kenneth D. Porad, program manager for Boeing Commercial Airplanes' automated identification program. "This technology is changing quickly, so we want to set the stage with our customers and suppliers. Boeing and Airbus are not going to provide conflicting requirements to common airline suppliers. That would be costly and foolish. We're rising above competition because this is so important."

The two manufacturers believe that RFID could provide major benefits for the entire industry. The manufacturers will get more accurate information about their demand for parts. They will be able to reduce their parts inventory and cut the time it takes to repair planes. Suppliers will also be able to reduce inventory, improve the efficiency of their manufacturing operations and use the technology to verify to Boeing and Airbus that parts they get are genuine, thereby reducing the amount of unapproved parts that enter the supply chain.

Standards are already in place. The Air Transport Association recently added an RFID standard to its SPEC2000, a comprehensive set of e-business specifications, products and services for the aviation parts industry. The standard calls for the use of IS0 15693 passive, read-write tags, which operate at 13.56 MHz. The RFID transponders will be integrated with existing bar codes, which will still be required.

By the end of the year, the Federal Aviation Administration (FAA) is expected to certify the use of these passive RFID tags for parts that will be used on planes. Porad says that as soon as that happens, some of Boeing's suppliers will begin using the technology. At some point, the company will require the use of

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RFID as part of new contracts.

"We're not ready to say today you have to do it," he tells *RFID Journal.* "But it will be a requirement on major parts on airplanes at some point, and we want [our suppliers] to know all about RFID, what the challenges are, and the benefits, and what the roadmap looks like for the technology."

Jens Heitmann, senior manager for system/equipment standardization process and methods at Airbus, says his company wants to deploy RFID for use on its A400M, a large military transport plane, as well as for the A380 commercial jet. "The first place Airbus will deploy the technology will be for cabin parts," he says. "Most other parts are metal, which is difficult to track with RFID. The plastic parts in the cabin will be easier to tag."

Airbus has already begun using RFID on jigs and tools, which it loans to airline maintenance centers. The tags are used to track the items as they are sent out to the centers and returned.

Some consumer packaged goods manufacturers are unhappy about having to comply with mandates by retailers because the manufacturers have to absorb the cost of the tags. Heitmann says he doesn't expect much resistance from suppliers because the use of RFID is not being mandated at this point and because many of the items that will be tagged will be expensive, and the cost of the tag is insignificant as a percentage of the total cost of the item.

"We're starting with line replaceable units, which can cost $5,000," he says. "[The tags will cost less than 50 cents, but] you could put an $5 RFID tag on these items. It's different than consumer goods."

Airbus and Boeing are also looking at having their suppliers tag transport containers and other shipping conveyances used in aviation industry supply chain. These will likely be tagged with passive UHF tags carrying Electronic Product Codes. Porad says Boeing may migrate to EPC tags on containers of parts quickly after EPCglobal finalizes its specifications.

Boeing will soon test UHF tags on an active-duty airplane, as part of a 90-day in-service evaluation. UHF tags could eventually be used on individual parts, but right now, there isn't a global standard for using RFID. Since 13.56 MHz can be used for RFID tagging worldwide, it makes sense for global manufacturers to use this frequency today.

"We believe there will be a UHF standard for the world ultimately," says Porad, but the industry can achieve near-term benefits by using 13.56 MHz tags to mark airplane parts.

The Global Aviation RFID Forum events are open to the public, and interested parties can register online. The session will include a primer on the technology, airlines speaking about the importance of RFID, suppliers explaining the benefits of automatic identification technologies, and an explanation of how RFID can reduce the risk of unapproved parts entering the supply chain.