

# FAA to Issue RFID Policy in 60 Days

A representative from the Federal Aviation Administration told a gathering of aviation executives that it would soon publish its policy on the use of passive tags on planes.

By Mark Roberti

Mar. 31, 2005—The U.S. Federal Aviation Administration plans to issue its policy regarding the use of passive RFID tags on airplanes within two months, said John Dimtroff, national policy maker for electromagnetic effects at the FAA. He was speaking at the 2005 Global Aviation RFID Forum, held in Orlando, Fla., on Mar. 29-30.

Dimtroff said that the FAA considers an RFID tag as a nonessential part, and the agency is concerned that such a part could disrupt a critical system on an aircraft. Electromagnetic energy (radio waves) can interfere with an airplane's instruments. The FAA worries that RFID tags might emit electromagnetic energy that could cause a problem for systems on the aircraft.

Boeing has told the FAA that it plans to read tags only when a plane is on the ground. Since the tags are passive, they do not emit any energy and should not have any impact on the operation of the aircraft.

But Dimtroff said the issue was not as simple as it might appear. He pointed out that Nokia has developed a phone for reading RFID tags. "Could a teenager with a cell phone read tags on parts in the cabin?" Dimtroff asked. "These are some of the issues we are looking at."

Another concern is that the passive tags could be woken up by RF energy from other devices on the plane and then interfere with equipment. Dimtroff indicated that the FAA would prefer a passive RFID system where RFID readers have to wake up the tags by sending a command, rather than a system where the tags speak first.

"We're doing EMI [electromagnetic interference] testing to see what effects we can see," he said. "If there are 5,000 tags on an aircraft and they all light up at once, what will happen? We're not quite convinced that there are not any issues."

John Seaner, senior director of industry development at EPCglobal US, told the audience that the Gen 2 spec calls for the reader to talk first.

Dimtroff said that the FAA would hold a meeting next week to discuss the passive RFID policy and that he hoped that the committee would simplify the rules and publish them shortly. "The policy memo is in the draft stage," he said. "It's our intent is to allow passive tags to come on board the aircraft."

After the passive tag policy is finalized, the FAA will look at battery-assisted tags and active tags. Battery-assisted tags reflect a signal back to the reader but use an on-board battery to either boost the tag's read range or to run the circuitry on the chip or a sensor integrated with the RFID tag. Active tags use a power source to broadcast a signal. Active tags could potentially interfere with aircraft operations, so there will likely be extensive testing before the FAA certifies the tags for use on planes.

