

FHH Telecom Law
September 2006

New Airport Security
Device Approved
Detects metals, non-metals, liquids

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As we shuffle forward in the airport security line, waiting to be de-shod and wanded, our thoughts turn to how that suspicious-looking individual in front of us might have a huge ceramic knife taped to his leg, not to mention a Zip-lock bag of explosives under his shirt – and the metal detectors would miss both.

Relax. The FCC recently approved a new type of security screening device that reliably picks up both metal and non-metallic weapons and other contraband, including liquids, hidden in and under the clothing. The subject enters a round chamber rather like a modernistic telephone booth, and stands there for two seconds. A low-power beam of high-frequency radio waves scans the subject, processes the reflections, and shows an image displaying any threat objects on the subject's person.

The device is made by SafeView, part of L3 Communications. It works by sweeping a radio signal over a very broad range of spectrum, from 24.25 to 30 GHz, in just 6 millionths of a second. The average power from the device is extremely low, about 70 nanowatts (billionths of a watt), well within FCC limits. The device nonetheless raised a question at the FCC, whose rules require measuring a swept-signal transmitter with the sweep stopped. In the case of SafeView's device, the company says, this has the effect of overstating the emissions and interference potential by a factor of 10,000.

SafeView asked the FCC for a waiver to allow taking the measurements with the sweep running. Companies that hold licenses in the 24 and 28 GHz bands objected, because they feared the device might cause interference. SafeView revised its calculations, adopting many of the assumptions favored by the opponents, and concluded that no interference would result. It also proposed a series of measures intended to protect licensed users, including indoor-only operation, a database of device locations, and a cap on the number of waived devices. Citing the importance of the device to national security, the FCC agreed with SafeView that the proposed conditions would reasonably guard against interference, and granted the waiver.

Watch for a round phone booth at an airport near you. And leave that big ceramic knife at home.