

'Tunnel of truth' for air travelers is a long way off

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A traveler undergoes an enhanced pat down by a Transportation Security Administration agent at the Denver International Airport on November 22, in Denver, Colorado. Travelers and transportation screeners alike dream of a day when people will no longer have to spread their legs and lift their arms for intimate pat-downs or see-through body scanners.

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Laptops would never have to be taken out of bags, shoes would stay snugly on the feet and yet danger could still be averted by some silent technology that would harmlessly detect bombs and weapons on would-be criminals.

Industry wonks imagine this technology would provide a "tunnel of truth" through which travelers could pass without stopping, unless of course the machines detected some dangerous tool or trace explosive on them.

But that day is a long way off, since none of the new technologies under consideration by the US government provides a way to do a truly complete search of passengers, experts say.

"With all the expense and complication they are doing with these body scanners, they have still not completely deployed something that does comprehensive detection on concealments by people," an industry source told AFP on condition of anonymity.

The current star of the show is the [body scanner](#), which has sparked uproar in the US public over the detailed body images it shows to the people working as screeners in airports.

The US government insists that advanced [imaging technology](#) (AIT) -- which uses millimeter wave or backscatter technology to either bounce [electromagnetic waves](#) off a person or project mild X-rays -- is safe.

But critics point out it would likely miss explosives hidden in shoes or in body cavities.



An Advanced Imaging Technology (AIT) full-body scanner is seen at Los Angeles International Airport (LAX) on November 22, California. An improvement to AIT that could sooth the sensitivities of body-conscious travelers is known as automated target recognition (ATR), which would allow the scanner to focus on any anomalies, such as a knife, and blur out the rest.

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Screeners would see a stick figure or a blob of the person being scanned, and any suspicious area would be highlighted so that a security expert could proceed with a more targeted pat-down.

"The only concern I have about that is there is currently a high rate of false positives," John Pistole, head of the Transportation Security Administration (TSA), told lawmakers earlier this month.

"High false positives result in more pat-downs," he said, noting that screeners at Schiphol Airport in Amsterdam were testing the technology and that studies would continue.

Previous generation body scanners, such as the "puffer" machines called explosives trace portals (ETP) that scanned a person for explosives by surrounding them with a sudden burst of air as they stepped through a screening device, have been abandoned.

"They didn't work very well and there was a large cost," said Tim Persons, chief technologist at the Government Accountability Office

(GAO), which has tracked the US transportation authority's search for new technology.

Some individual advances have shown promise, such as liquid scanners that can detect what is in bottles inside carry-on luggage, and scanners that specifically check casts and artificial limbs.



A traveler undergoes a full body scan performed by Transportation Security Administration agents at the Denver International Airport on November 22, in Denver, Colorado. Travelers and transportation screeners alike dream of a day when people will no longer have to spread their legs and lift their arms for intimate pat-downs or see-through body scanners.

A company called Syagen recently won a contract with the Department of Homeland Security to use its mass spectrometry technique, which a spokesman described as "an air shower," for explosives screening of cargo.

It was a welcome gain for Syagen, after it spent two million dollars developing a trace explosives scanner for passengers known as The Guardian that was cast aside by the TSA after it determined that puffers, which used a related technology, were ridden with problems.

But shoes have offered perhaps the toughest puzzle, ever since attempted shoe-bomber Richard Reid boarded a plane in Paris in 2001 and tried to ignite explosives in his sneakers.

"TSA and other agencies are working very actively on the shoe problem," said Brook Miller, vice president of Smiths Detection, which is working on a new-generation body scanner that would provide real-time information to screeners.

"The body scanners in all likelihood would have some trouble finding things that are in shoes if they are left on," he said, admitting no one has yet found the "magic bullet" for airline detection technology.

The rush to install airport body scanners, now in 70 airports, followed the 2009 Christmas Day bomb attempt, when a young Nigerian allegedly tried to ignite plastic explosives concealed in his underwear as his plane came in to land in Detroit.

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