Testimony before the
House Committee on Transportation and Infrastructure
Subcommittee on Aviation

"Aviation Security: An Update"

Presented by

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Thank you Chairman Costello, Congressman Petri, and Members of the subcommittee. I am honored to testify before this committee on the critical issue of improving aviation security.

I am Ajay Mehra, President of Rapiscan Systems. Rapiscan Systems is a global company based in Torrance, California which offers the world's widest array of non-intrusive inspection systems for airports, seaports, land borders, mass transit modes and other secure locations.

Rapiscan Systems has installed more than 70,000 inspection systems in over 150 countries around the world. We currently provide more than half of all U.S. airport checkpoint screening systems. Rapiscan also delivers border and sea port inspection systems for U.S. Customs and Border Protection and other international customs agencies. The State Department employs our systems at its offices throughout the world. And the systems we all walked through to gain entry to this building were made by Rapiscan Systems.

Rapiscan Systems designs, develops, manufactures, installs and services nearly every type of non-intrusive inspection technology used in the world today. We therefore understand better than anyone the strengths and limitations of all these systems and can help security officials employ the best technology for any detection and operational requirement.

Rapiscan Systems is a leader in aviation security with installations at the world's most secure airports

Every day, Rapiscan Systems upholds our commitment to our leadership role in keeping global air travel safe. Our technology has been the first line of defense since the 1960s, when airports began to use such systems. Today, aviation customers worldwide turn to our fully integrated, all-inclusive solutions to screen passengers, baggage, and cargo – quickly and reliably. After September 11, the United States government called on Rapiscan Systems for an emergency deployment of hundreds of additional systems to U.S. airports.

Air travel is more secure since 9-11
Today, nearly seven years after the 9-11 attacks, I can say that aviation security is clearly stronger. That is due in large part to the dedication of the TSA. As with everything, there is still room for improvement. While my focus today will be on technological advances in detection, we must pay equal attention to how technology affects airport operations and the traveling public. The aviation industry and the traveling public clearly want a secure civil aviation system. Long lines, inconsistent inspection procedures, and a beleaguered airline industry are not acceptable outcomes of increased aviation security. TSA and the aviation security industry should be evaluating and installing technology that not only improves detection, but also facilitates the flow of passengers and their baggage. Rapiscan has the capability of simultaneously improving both throughput and aviation security at the checkpoint, in the checked baggage arena, and in air cargo screening.

Next Generation Checkpoint Technology: Carry-on Baggage Phase 1
TSA is diligently working to enhance the inspection capability of passenger carry-on items for terrorist threats. Currently, TSA is implementing the Advance Technology (AT) Checkpoint program at Category X airports and is planning a larger, system wide deployment.

TSA intends to replace the current checkpoint X-Ray systems with the AT systems. The AT systems are aimed at improving the detection of explosives and other aviation threats while improving the processing of passengers and their belongings. The AT systems provide multiple views of each bag being screened and a number of advanced functions to achieve this goal.

In what we consider a model for procurement policy at TSA, as part of a competitive solicitation, TSA evaluated multiple technologies and selected three vendors to move to the operational pilot phase of the program. I am proud to say that Rapiscan Systems was one of these companies. The initial contract called for each vendor to deliver five of their AT systems to TSA for testing in airports. The airport pilot locations were; Albuquerque, John F. Kennedy in NewYork, Phoenix Sky Harbor, Los Angeles International and Ronald Reagan Washington National.

Ultimately two vendors passed operational testing and were chosen to move forward with deployment contracts. To date, Rapiscan Systems and one other company have been awarded contracts totaling approximately 500 systems. TSA recently announced that they would be purchasing an additional 500 systems to be deployed in the next nine to twelve months.

Next Generation Checkpoint Technology: Carry-on Baggage Phase 2
As part of phase 2 of AT deployment, TSA recently released a request for proposal (RFP) for scanning technology to add to the Qualified Products List (QPL) for the AT program. This RFP

doubled the number of performance requirements for AT systems and opens the door to more vendors and any new technologies developed over the last few months.

Rapiscan is ready to meet these new challenges and we have technologies that will continue to improve on checkpoint security. Our developments to meet the new procurement requirements are designed to be easily upgradable in the future, which will allow the TSA to technology refresh these systems rather than actually replacing them.

Next Generation Checkpoint Technology: Whole Body Imaging (WBI)
Currently, U.S. airports employ a complex system of enhanced metal detection systems, trace detection machines, and physical pat-downs to inspect passengers for weapons, explosives, and other hazardous materials. This process employs a number of techniques that combine relatively low reliability and relatively high intrusiveness. Airport metal detectors cannot detect explosive materials or other non-metallic threats. The previous trial deployment of explosives trace detection "Puffer" systems were unable to detect non-explosive threats and suffered from numerous operational issues. These systems can improve aviation security with fewer systems that achieve even better results by being used as primary screening as well.

TSA's WBI program is designed to deploy technologies able to inspect people for all threats more quickly and effectively than pat down searches and metal detectors. Although the WBI technologies do meet these requirements, deployment has been slowed due to policy provisions associated with privacy concerns and testing changes to move the systems into a primary screening application. These delays have primarily affected the backscatter technology systems, which have proven to offer the best detection capabilities.

One of the selected WBI systems is the Rapiscan Secure 1000 which utilizes backscatter technology. Immediately after scanning, images appear on a remote display monitor showing any concealed objects on the person. The system imaging includes privacy software to allow for quick detection while protecting the personal privacy of those scanned. The privatized image is basically a chalk outline of the body that highlights the foreign object. Images are not saved and cannot be printed.

Backscatter technology can inspect people for metallic objects, plastic and ceramic weapons, explosives, and non-metallic threats like explosives. The system is currently deployed at hundreds of non-aviation security checkpoints around the world. This technology has been successfully used by U.S. armed forces in combat zones around the world, as well as U.S. Customs and Border Protection, and other homeland security agencies where improving security is of paramount importance.

It is important to remember that the WBI program is an alternative to the very unpopular, less effective, and highly-intrusive physical pat down search. So it is important to remember that the traveling public has the choice of this method over invasive and unreliable physical searches.

Unfortunately, unlike the successful AT program, TSA has chosen to move forward with one technology, millimeter wave, without successfully completing all phases of testing, and submitting all technologies to equal testing under the WBI program. We believe that this insufficient data did not quantify the detection capability, passenger throughput, and reliability of the millimeter wave technology. Thus, procurement of these machines at the numbers at which TSA has chosen is not yet validated. We would suggest that TSA successfully complete the entire original pilot program as it was defined, and quantify their test data before moving forward with procurement of any additional machines.

The delays in the initial WBI pilot program are now being followed by a new QPL procurement for WBI systems which will open the market further. The new QPL process requires a large unfunded investment by WBI companies to submit for another round of testing. Given TSA's ongoing testing of the initial program and their decision to purchase one technology, millimeter wave, before finalizing testing, Rapiscan does not understand the value of the government or industry investing in another round of procurement qualification testing until the current testing, data review, and procurements are completed.

Other Technolgies for Aviation Security

While I was asked by the committee to focus on the checkpoint today, I do want to at least mention that Rapiscan continues to be a leader in aviation security. We are currently developing technology that can be used for next generation EDS for checked baggage. We also have readily available technology that can be used for air cargo screening. However, due to procurement regulations I will not discuss those at this time.

I want to again thank the committee for the opportunity to discuss these important issues and technological advancements. Rapiscan Systems is proud to be part of the United States homeland security effort, and the only company to be a part of both the AT and WBI programs at the checkpoint. We take seriously our role in the final line of defense. Rapiscan Systems has designed and deployed many of the systems the country relies on to catch terrorists today. We look forward to continuing to work with Congress and the Department of Homeland Security to bring the newest and most advanced technologies from the laboratories to the front line. I am happy to answer any of your questions.