Improving airline security

UK industry working closely with STFC’s Daresbury Laboratory delivers new x-ray scanning technology that enhances airport security, reduces costs and improves passenger confidence

RAPISCAN
With stories of potential terror attacks constantly in the news, our personal security becomes a daily thought when travelling overseas. Rapiscan Systems, a world leading provider of security monitoring equipment for airports and other ports of entry has developed the next generation of security scanning technology.

Rapiscan was based at STFC’s Daresbury Laboratory for over 2 years. This provided the company with the optimal mix of onsite resources, equipment and test facilities to overcome the technical challenges needed to develop their first airport installed baggage scanner.

NEW TECHNOLOGY
The previous breed of airport scanning machines gave security staff a flat, one-dimensional view of the contents of a bag. Although hospital-style scanners, similar to those used to scan unborn babies, have been adapted on a small-scale for baggage scanning, the systems were too slow to be widely used in airports. By using multiple X-ray sources, the new technology provides more comprehensive and probing 3D images of suitcases and baggage at rates three times faster than existing systems, thereby providing the highest levels of security whilst lowering costs and reducing the impact on passengers.

Rapiscan is now rapidly growing and has recently set up a major manufacturing base in the UK. Its product is certified for use in all European Airports and their first order, from Manchester Airport, is worth ~£20 million. The company based in Redhill Surrey has a research division based in Manchester and received the Queens Award for International Trade in 2012. STFC’s collaboration with Rapiscan is a great example of where existing skills and technology from the research base have been exploited to help keep the British public safe.

Rapiscan
Around 235 million passengers pass through Britain’s airports each year, with most people having experienced significant delays due to security checks. More efficient airport security saves travellers’ time and the value of this is likely to run into several billion pounds annually.

“The skills and technology that we developed during our time at Daresbury Laboratory made a major impact on our company at a critical time. Without it, we would not have attracted any further investment, and in all likelihood we would have had to dissolve as a company.”

Dr. Ed Morton, Technical Director of Rapiscan Systems

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