



USING INNOVATIVE TECHNOLOGY TO PROTECT AGAINST INSIDER THREAT AT AIRPORTS

Airports have moved quickly and decisively to adopt new technologies to increase security and thwart attacks. From drones for perimeter screening to advanced facial recognition programs to new scanning technologies that make it possible to rapidly detect explosives, firearms and other weapons hidden on a person, these are just a few of the tools being used to fortify airports. While adoption rates for new technology aimed at bolstering security to address insider threats have been growing steadily, there's been little innovation as it relates to employee screening or for the public areas of the airport.

RECENT UPTICK IN INSIDER THREAT INCIDENTS HAS PROMPTED ACTION

An insider is a person who exploits, or has the intention to exploit, their role or knowledge for unauthorized purposes. They may be full- or part-time employees, contractors, consultants, agency staff or temporary staff. With more than 1 million employees working in airports nationwide and an uptick in insider threat incidents taking place at airports in recent years, it's hard to overstate the importance of the need to protect against the insider threat.

The notion that personnel entrusted to work in our airports can be the very people who target the industry and inflict catastrophic damage began in the late 1980s with the first sabotage of aircraft and has become a growing concern ever since. In the past five years, there have been several high-profile insider threat incidents in the U.S. and many more abroad. Some have centered around weapons and drug smuggling while others have involved hidden explosives. The insider threat has become such a big concern that both the TSA and IATA have issued guidelines aimed at helping the aviation security community ward against these types of attacks. This guidance mainly consists of more stringent pre-employment vetting and random screening measures, with a physical screening of a larger percentage of employees. Some airports have gone further and are now utilizing some of the same advanced technologies that they use in their landside security operations for employee screening; others are still using old technology such as traditional metal detectors and are also performing intrusive physical searches, while many airports are taking a "wait-and-see" approach to see what the TSA will support or mandate.

EXAMPLES OF AVIATION INSIDER THREAT INCIDENTS

ATLANTA – HARTSFIELD – DECEMBER 2014

- » Airport employee arrested in gun smuggling case
- » Co-conspirator was former airport worker; had guns on planes in carry-on bags

EGYPT – METROJET 9268 – OCTOBER 2015

- » Airport employee plants explosive device on plane
- » 224 passengers and crew killed in crash

MINNEAPOLIS – MSP 2008-14

- » Men recruited by ISIS were former airport employees with access to airplanes
- » One of the men became a suicide bomber abroad

The aviation security community has been proactive and innovative in many ways as it relates to the introduction of security technologies and should continue to innovate in the use of technology to improve employee screening in order to stay ahead of the insider threat.

THE CALL FOR MORE STRINGENT EMPLOYEE SCREENING PROCESSES ARE ANTICIPATED

With the incidence of insider threat events on the rise, it's highly likely that TSA-like screening and other security measures will become best practices for employee screening in the near future. This is sure to be challenging for aviation security executives to implement due to a lack of funding and the pressing need to balance safety and security with the screening experience. When shift changes occur, hundreds and in some cases, thousands of airport workers enter the airport at once. If employees are stuck in long lines at security checkpoints and can't get to their posts at their scheduled start time, it can cause flight delays, which can cost airlines hundreds of thousands of dollars and negatively impact passenger satisfaction.

CASE STUDY: SAFEGUARDING AGAINST INSIDER THREAT AT OAKLAND INTERNATIONAL AIRPORT

Oakland International Airport is known in the aviation community for its commitment to advancing innovative solutions to complex security operations. Recently, the Airport was selected as a TSA Innovation Task Force Site to help the TSA apply lessons learned around the country. In 2018 Oakland International installed a new threat detection and prevention solution to enhance its employee screening program. As the second busiest airport in northern California, Oakland International has been growing on a consistent basis for four years. It had more than 13 million people travel through the airport in 2017. More travelers mean the airport needs more people working there to accommodate growth and innovation was required to help ensure a safe work environment and an efficient, non-disruptive screening experience for its employees. With its new detection solution, employees pass through at walking speed, without having to empty their pockets or submit to invasive search procedures. "This is a welcome change for employees compared to manual screening and traditional methods the Airport used in the past which were slow and required divestment and physical searches," according to Doug Mansel, aviation security manager at Oakland International. The new system is also mobile, so it can be used for different use cases throughout the entire airport and supports random, unpredictable screening, which has been proven to be an effective deterrent.



traditional methods are slow

NUMBERS POINT TO THE NEED TO GET AHEAD OF THE THREAT IN EVERY AIRPORT

According to an economic impact study conducted in 2017 for Airports Council International – North America, about 1.2 million people work at 485 commercial airports in the U.S. Half of visitors to U.S. airports each day are employees or contractors, according to former TSA director John Pistole. At Hartsfield-Jackson Atlanta International Airport more than 40,000 people work in secure areas. These statistics, combined with the increasing number and severity of insider threat attacks, point to the need for widespread action. The aviation security community has been proactive and innovative in many ways as it relates to the introduction of security technologies and should continue to innovate in the use of technology to improve employee screening in order to stay ahead of the insider threat.

THE SOLUTION FOR SUPERIOR, FAST, PEOPLE FRIENDLY SCREENING

Evolv Edge™, developed by Evolv Technology, takes the hassle out of screening by consistently scanning for bombs and weapons without the need for people to stop, remove clothing or empty their pockets. This next-generation threat detection and prevention solution incorporates multiple sensors including active millimeter wave (MMW) and electromagnetic technology for the detection of metallic and non-metallic threats. The system screens 800 people or more per hour — with or without bags in hand — so there's no line buildup or bottlenecks. Built-in wheels make Evolv Edge™ easy to move to provide pop-up security checkpoints. Performance settings are adjustable to respond to different operational situations including policies on what constitutes a metallic threat, while integrated face recognition allows guards to verify employees for access and prevent terminated employees from gaining unauthorized entry. Automation enables improved, objective guard performance and efficiencies result in operating expense savings. With Evolv Edge™, airport security executives can be confident in their ability to mitigate the risk of insider threat with a screening process that is fast, has the right concept of operations for the facility, is non-invasive and provides a better employee experience.



Evolv Edge™ is manufactured in the United States and has been tested, verified, and approved by numerous organizations worldwide such as the FCC - The United States Federal Communications Commission and TNO – an internationally recognized detection and testing facility. It is CE and IEC certified and was a R&D 100 Award finalist in 2018. Evolv Technology has been awarded more than 100 patents.

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