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# THE BIG SCREEN

**Stephen Cooper, OBE & director of Operational Solutions, Apstec System shows how a new development in screening technology can help tackle the growing threat of attacks in crowded public spaces such as airports**

**During the past** fifteen years, the Middle East has been plagued by terrorism. In 2017, although attacks fell overall, nine out of ten global terrorist incidents took place in the Middle East, Asia or Africa. And over the course of the past decade and a half, MENA experienced the sharpest increase in terrorism. While these figures may not be surprising given the emergence of the Islamic State – which in 2016 was responsible for 4,673 attacks in Afghanistan, Syria and Iraq alone – they highlight the scale of the challenge the region faces.

Fortunately victories have been made against ISIS during the past 18 months, and the group's control over large territories in the Middle East has virtually ended. But despite this, threats remain. As the Washington Post notes "If the Islamic State is down, it is not yet out," revealing that

the group may still have over 30,000 fighters in Syria and Iraq.

It is therefore critical that the counterterrorism fight continues both throughout the Middle East and around the globe. However, this fight is undoubtedly challenging; as former CIA Director George Tenet observed, terrorists "only have to be right once," whereas governmental authorities are expected to be right all the time.

## **Evolving tactics**

Compounding this challenge is a change of terrorist tactics, with attacks in public places such as event venues, places of worship and landside areas of airports, becoming an almost regular occurrence. Neighbouring Turkey, for example, suffered extensively at the hands of terrorists ➤





▮ Capable of screening in excess of 10,000 people per hour (versus the several hundred of a traditional security lane), with multiple individuals scanned at the same time, HSR is highly efficient and un-disruptive, allowing for the free flow of people ▮

» using these methods. Suicide bombings in Istanbul's Ataturk airport caused the deaths of 45 people and injured more than 230 others in 2017, while a nightclub shooting took the lives of 39 people in 2017.

Tragically, these are just two examples out of many, with the risk of terrorism having a devastating impact on the country's economy. In 2016 following a spate of high profile attacks, Turkey experienced a "tourism crisis," resulting in visitors plummeting by a third, and a loss of almost 1% of its entire GDP.

In turn, travel services revenue fell by a huge \$8 billion, according to Central Bank data. As this highlights, terrorism can have far reaching ramifications that extend beyond the events themselves, and can significantly impact global perception of a country.

This is something Qatar is acutely aware of as it prepares to host the FIFA Football World Cup in 2022. With all eyes set to be on the Gulf nation, the event provides it with an opportunity to broadcast its chosen image to the world. However, any perceived lack of security could be severely detrimental to the tournament, and to Qatar's economy and reputation. As the Doha News notes, "the threat of terror

[is] almost as critical as the actual attacks themselves."

Fortunately, against the backdrop of ever-present terrorist threats, technological advancements have been made to dramatically mitigate risk. In particular, significant developments are helping to close a critical capability gap: the security of public spaces.

### Critical challenge

Safeguarding public spaces has historically been almost impossible, making them highly attractive target for terrorists. As attacks like those in Turkey showed, places such as the landside of airports, venues or sporting events, are highly vulnerable to indiscriminate attacks, with the increased unpredictability of such attacks – both as to their timing and location – fuelling public concern.

This in turn has exposed serious shortcomings in existing security measures. For example, traditional checkpoint security processes, which scan one individual at a time, were impractical, inconvenient, unreliable and expensive to operate. In addition, such methods can also expose people to further risk; when analysing the lessons learned from airport bombings, Lina Kolesnikova, specialist consultant in crisis and disaster management and homeland security, found that "screening at Ataturk had been pushed all the way back to the terminal entrances. This is the so-called Moscow model of security, which was introduced in many airports after the Domodedovo attack. However, this model creates crowds at terminal entrances that can be targeted and indeed, this is what appears to have happened at Ataturk." These challenges have meant that security in crowded spaces has been limited or non-existent, and time and time again has failed to act as a



#### » deterrent for terrorists.

Recognising the challenge facing authorities when looking to secure public spaces, organisations such as NATO and the US Department of Defence have created working groups, research projects and provided funding to identify promising technologies and approaches which could be applied to this problem and in particular address the suicide bombing threat to crowded places.

One of the award winners and funding recipients – recognised for its ability to protect vulnerable crowded places from the risk terrorist attack without causing delay to intensive people flow – is called Human Security Radar (HSR). HSR is the culmination of years of work by specialists in the fields of radio physics, electronics and software engineering and the consultation of leading security and counter-terrorism practitioners.

Capable of screening in excess of 10,000 people per hour (versus the several hundred of a traditional security lane), with multiple individuals scanned at the same time, HSR is highly efficient and undistruptive, allowing for the free flow of people.

The fully automatic, walk through system screens for threats in real time, and can detect explosives, firearms and large knives hidden under clothes and in body-worn backpacks. It leverages centimetre wave technology, enabling it to discriminate explosives from benign materials, and offering an exceptionally high level of accuracy.

As the prolific number of attacks against soft targets has shown, terrorists exploit the absence of security. Providing a proven means of identifying threats via technology such as HSR therefore not only stops attackers in their tracks, but can also serve as a powerful deterrent.

#### **Qatar pilot**

HSR has been deployed by a number of airports in the Middle East and around the world; most recently one of Turkey's largest airports, Esenboga International in Ankara, announced that it would be utilising HSR in the landside of its airports. With 40,000 passengers travelling through the airport each day, the move is set to improve security for millions of travellers each year.

As Qatar looks ahead to the World Cup, it too has looked to bolster safety in public areas through the implementation of HSR. Hamad International airport, for example, has just completed a ten-month pilot installation of the technology, with exceptionally positive results. Commenting on the deployment, Philip Bamber, Assistant VP Security, Hamad International Airport, said:

"HSR has been extensively tested in an operational environment and found to be uniquely well suited to the protection of the land side of airport terminals from terrorist attack. We believe this type of technology integrated into the terminal infrastructure with a redesigned landside security operation concept offers an effective and flexible solution that can be envisaged as the future of high throughput screening."

Following this deployment, it is expected that Doha will adopt similar proactive security measures in the run up to 2022, enabling it to significantly enhance security at the Fifa World Cup 2022, without creating a disruptive experience for fans.

Although there is sadly no 'silver bullet' for eradicating terrorism altogether, as these deployments show, technological advancements have made it possible to close a critical security capability gap.

With such solutions already proven, the time is ripe for authorities to bolster their defences. However, after the headlines subside following an attack, there is a risk that security fades from public consciousness and can become de-prioritised. Yet this doesn't make the risk any less imminent. It therefore remains critical that the Middle East remains vigilant, and adopts a proactive approach to security help reduce attacks even further, and make the world a safer place for us all. ■

#### INSTALLATION



## Apstec's Human Security Radar (HSR) to enhance security at Esenboga International Airport

**Apstec's Human Security Radar HSR has been selected by Esenboga Airport, Ankara, to significantly boost security in land side areas**

HSR will be installed at the terminal entrances as part of ongoing security enhancement measures by the Turkish State Airports Authority. It will enable people screening without slowing down the flow of traffic, with each system capable of scanning up to 10,000 individuals per hour. The technology was deployed in partnership with local distributor AKBA.

The first fully automated, real-time mass screening solution, HSR is a walkthrough system that combines high throughput, speed and accuracy, simultaneously screening multiple subjects in real-time for threats, without the need for an operator to inspect suspect materials.

With 40,000 passengers travelling through Esenboga Airport every day, the deployment of HSR will be instrumental in improving security for millions of people.

"HSR constitutes a major breakthrough in the way airports protect the land side of terminals," commented Osman Aksoy & Sirzat Balin, Co-Founders, AKBA. "Through deploying HSR as part of its commitment to terminal safety and enhanced security measures, the Turkish Airport Authority has taken a major step to prevent the reoccurrence of terrorist attacks."

Esenboga Airport's uptake of HSR is the latest major deployment of the technology, which is currently utilised by some of the world's largest airports, as well as sports stadiums, entertainment venues, mass transport hubs and networks, places of worship, hotels and high-end retail and entertainment centres.

■ For more information visit [www.apstecsyste.ms.com](http://www.apstecsyste.ms.com)