3DX-RAY

ThreatScan®-LS1

X-rays for counter-surveillance

- Suspect item inspection
- EOD evaluation
- Customs control
- Vehicle scanning

Portable, real-time x-ray scanning systems for faster clearance

Bugs in coffee cup and lighter

Filofax with bug

Audio watch

Counter-surveillance and x-rays - a case study in delivering 100% clearance

Gamma TSE is a government contractor to state intelligence and law enforcement agencies for surveillance and counter-surveillance projects. In high-pressured counter-surveillance environments, providing speedy, reliable '100% clearance' is critical. Michael Simpson of Gamma TSE explains how deploying specialised digital x-ray equipment from 3DX-RAY has enabled the company to greatly enhance the speed and accuracy of its counter-surveillance 'sweeps'.

"Counter-surveillance measures involve several stages to ensure 100% clearance, and perhaps the most obvious of these is conducting a physical search. There are, however, some things that you cannot physically dismantle for checking, for example, table tops, foam seats and so on. With this in mind it is vital that part of the sweep is non-destructive, and yet equally important that it remains effective. In these situations x-rays are the most conclusive technology available.
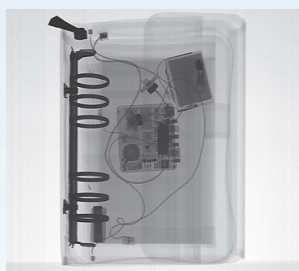
X-ray technology has been part of the counter-surveillance inventory for over ten years but for most of that time it has involved cumbersome and time consuming analogue systems. Even up to a couple of years ago the x-ray equipment being used still involved x-ray foils that needed to be taken away for development and analysis. This is clearly not ideal especially when counter-surveillance sweeps need to happen in a time-pressured situation. Not only that but as the surveillance technology we are searching for has become increasingly smaller and complex (today we are talking about fingernail sized devices that can still transmit over 2km) so the analogue systems have become less reliable. With many analogue systems it is even difficult to accurately identify the tell-tale wires that are a part of many listening devices.

So for x-rays to remain a crucial part of the counter-surveillance effort they needed to develop higher levels of accuracy and be able to deliver instant results on site. At Gamma TSE we were interested in an x-ray system that could deliver the highest resolution digital x-ray images to enable a fast 100% clear counter-surveillance scan.

We began working with 3DX-RAY as they specialise in producing the highest possible resolution x-ray scans in a time-limited environment. Moreover they were able to deliver the required resolution of image in an extremely robust and portable form factor.
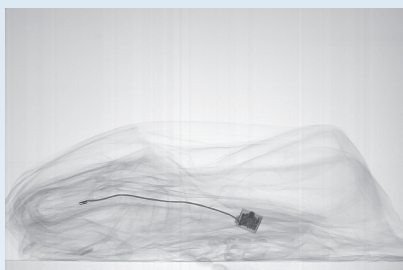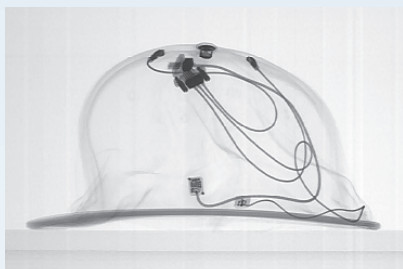
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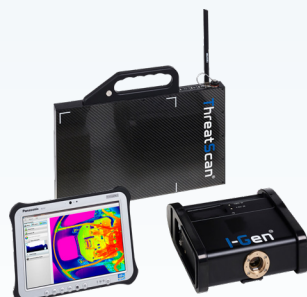

Bug in cup

Pinhole camera found in jacket

Listening device in hat

Bug in pen

ThreatScan®-LS3

Using the 3DX-RAY portable scanner we can now scan non-destructible items as well as floors, walls and ceilings. By linking the scanner to a laptop we can produce virtually instantaneous results at very high resolution and clarity. This enables us to make quick sweeps and deliver 100% clearance. The images are sufficiently high resolution for us to detect wires that may only be 1 or 2 millimetres thick.

We are always looking for technology that can speed up our checks and working with 3DX-RAY has made a huge impact on reducing time spent on checking large items. The portable scanner system that we now use offers the largest scan area available on the market which is crucial. With a small scanner we may have had to do anything between 20 and 30 scans for a large table top. This is not only time consuming but also difficult to ensure that such a large number of scans line up correctly when you collate and analyse the images. With the new system we would do only 7 or 8 scans to cover the same table - a significant advantage.

What 3DX-RAY has enabled us to do is stay one step ahead in our counter surveillance efforts. In this sphere accuracy, reliability and speed are highly valued. Having the right technology at our disposal is central to everything we do, and having high quality tailored equipment that meets our exact needs is critical in delivering the highest standards of service to our clients."

ThreatScan®-LS1

Quick and simple to deploy, the system produces high quality real-time x-ray images for rapid and accurate decision making.

The slim detector panel is positioned behind the target; the generator is placed in front.

The scan is activated from the laptop imaging station.

The large 600mm x 460mm imaging area of the ThreatScan®-LS1 enables the operator to scan typical bags and packages in a single scan.

Penetrating up to 34mm steel at 120kV the LS1 produces sub-millimetre resolution images.

ThreatScan®-LS3

Offering the same high resolution image quality and image processing the compact ThreatScan®-LS3 has a smaller profile in order to address awkward or confined scanning scenarios.

Further information

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