



CASE STUDY

X-rays for counter-surveillance

Portable x-ray systems for faster clearance



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.

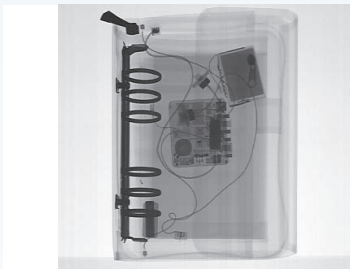
X-ray technology has been part of the counter-surveillance inventory for over ten years, but for most of that time it has involved cumbersome and time consuming analogue systems. Even up to a couple of years ago, the x-ray equipment being used still involved x-ray foils that needed to be taken away for 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 telltale 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 the 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.



Bugs in coffee cup and lighter



Filofax with bug



Audio watch



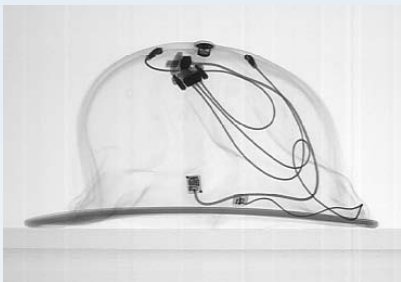
X-rays for counter-surveillance



FlatScan-TPXi deployed to x-ray through wall using tripods



Scanning for bug in Monitor



Listening device in hat



Bug in pen



FlatScan-15

Using the FlatScan TPXi 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, enabling 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, as, 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."

FlatScan-TPXi

Quick and simple to deploy, the FlatScan-TPXi portable x-ray 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 FlatScan-TPXi's large 535 x 412mm imaging area enables the operator to scan typical bags and packages in a single scan. Penetrating up to 29mm steel at 120kV and 32mm at 160kV the FlatScan-TPXi produces sub-millimetre resolution images.

FlatScan-15

Offering the same high resolution image quality and image processing the compact FlatScan-15 has a smaller profile in order to address awkward or confined scanning scenarios.

Further information

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