

UNATTENDED PACKAGES – THE SECURITY OFFICER’S DILEMMA

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According to the Institute for Economics and Peace, Global Terrorism Index 2023 ‘Deaths from terrorism fell to 6,701 in 2022, representing a nine per cent decrease from the prior year. The fall in deaths was mirrored by a reduction in the number of incidents, with attacks declining by almost 28 per cent from 5,463 in 2021 to 3,955 in 2022.’

The downward trend is good news. But terrorism is and remains a scourge and a huge challenge for law enforcement and security professionals everywhere.

Of the top ten most lethal attacks, six employed improvised explosive devices (IEDs) used to devastating effect. Reflecting that explosives remain a primary weapon in the terrorist’s arsenal.

In Europe, we only have [EU Terrorism Situation and Trend Report \(TE-SAT\)](#)¹ figures for 2021, but ‘France experienced the highest number of attacks (5), followed by Germany (3) and Sweden (2). Austria, Denmark, Hungary, Belgium, and Spain reported one attack each. Of the fifteen attacks, four were completed. Most reported terrorist attacks were categorised as jihadist terrorism (11), of which three were completed attacks conducted in France, Spain, and Germany, and eight were foiled respectively in France (4), Sweden (1), Hungary (1), Denmark (1) and Germany (1). The two fatalities recorded in 2021 were the result of the jihadist attacks conducted in Spain and France.’

‘Weapons used in attacks in the EU in 2021 included bladed weapons, vehicles (in ramming attacks) and improvised incendiary devices (IIDs). Disrupted plots showed the intent and efforts to produce improvised explosive devices (IEDs).’

These figures show that despite the high numbers of successful disruptions of attacks in Europe, the intention to use IEDs and IIDs in attacks continues to be a profoundly serious threat.

It is true that the likelihood of a real IED or IID attack remains extremely low, but the very existence of the threat, no matter how small, creates other problems, that of the receipt of suspicious packages, hoax bomb threats and unattended packages.

Figures for hoax calls and suspicious packages worldwide are impossible to find, so we will have to rely on the [2021 United States Bomb Data Center, Explosives Incident Report](#)². According to their report there were 4,935 suspicious/unattended packages reported in the US in 2021 and 1,876 reported bomb threat incidents in the same year.

Unfortunately, the report does not break down which of these were suspicious packages received and which unattended packages, but it is safe to assume that most are in the latter category.

Every country will have its own clearly defined protocols and procedures for managing a bomb threat or the receipt of suspicious packages, and

we can probably sum them up in one sentence, 'evacuate the immediate area and call the emergency services.'

But what to do about unattended packages?

We all know that by far the vast majority of unattended packages will be little Jonnie's/Jennie's sweaty sports kit, the very latest in men's facial care products or even a full suit of armour (true story).

But every security officer in every office building, bank, shopping centre, concert hall, hospital or theme park will at some time or another be faced with the same dilemma. Do they escalate the discovery of an unattended package into full blown bomb threat incident, or do they take reasonable steps to ascertain whether it really is a threat or not?

The disruption and cost caused by a building evacuation is difficult to quantify because figures are hard to come by and every building use is different. The cost of evacuating a shopping centre for a couple of hours could run into thousands, but the cost of evacuating a commercial bank in the city could run into tens of millions in lost transactions. The cost of evacuating a hospital could instead be measured in human suffering!

That is why these decisions are so important!

This is where the proper training and equipping of security staff is key.

So, how should a professionally trained and equipped security officer handle an unattended package or bag?

Firstly, they will attempt to get a visual inspection of the inside the bag or package to check if there are wires, circuit boards, batteries, tape, liquids, or putty-like substances. Are there unusual odours such as accelerants, anything that would indicate a device?

But as many times as not, it will simply not be possible to safely see inside the bag.

Next, they will check in the immediate area for the owner. Then if the area is covered by CCTV call into the control room and get them to check if the owner can be identified that way.

But all that done, and the owner not found, security staff cannot know for sure whether the package or bag is safe unless they get a good look inside.

And there really is only one way to do that. And that is with a portable x-ray scanner.

Portable x-ray scanners have now been around for a good many years.

Generally, they consist of an x-ray generator, a flat detector panel and a laptop, and are in operation with military and law enforcement EOD teams worldwide. They allow the operator the opportunity to see inside the package or bag without touching or disturbing it.

They are probably one of the most affordable and versatile pieces of equipment available to security professionals and should be in the tool kit of any security team responsible for any building or facility of any size.

And as with all good technology, these systems are being continually developed and the most significant development of recent years is the introduction of colour differentiated scans, which have made it possible to determine the nature of the materials being scanned. This is a really important development because it means that instead of relying on shape to determine the identity of an object, these systems are now able to accurately identify materials by colour. So, orange shows organics, such as some explosives, chemicals, and drugs, as well as more innocent items such as foodstuffs. Blue is for metals, such as many guns, knives, hand grenades, metal pipe bombs as well as IED components such as the power sources, switches, circuit components and metallic fragmentation. Green is for inorganic materials like black powders and aluminumized homemade explosives. Grey scale is used for recognition of shapes and the form of objects.

It is important to note that most portable x-ray systems on the market only use two colour scans and leave out the colour blue, this is because of a lack of understanding about how materials imaging works, which could put operators at a severe and potentially dangerous disadvantage. Accurate three colour differentiation is essential. Accuracy not only relates to the correct colourisation of the specific object but also to the consistent colourisation across the entire scanned area.

3DX-Ray offer a complete range of portable x-ray systems.



ThreatScan®-AS1(ISC)



ThreatScan®-LS1



ThreatScan®-LS3

ThreatScan®-AS1(ISC) is a robust amorphous silicon portable x-ray inspection system. It comprises, as standard, a detector panel with an imaging area of 430mm x 347mm, a new high penetration 150kV generator, and a laptop along with batteries, chargers, the user-friendly ThreatSpect software, wireless communication, and transport case.

The system is fully integrated, with a primary display, computer, communications, and power supplies consolidated into a single, waterproof rugged case. A secondary display tablet offers high flexibility in deployment to meet the wide variety of user applications and threat scenarios.

The combination of technologies used in ThreatScan®-AS1(ISC) offers exceptional X-ray imaging performance, 3DX-Ray's renowned advanced materials discrimination, and sophisticated image processing software.

ThreatScan®-LS1 shares the same high quality, high penetration image characteristics but with a larger 600mm x 460mm imaging area. ThreatScan®-LS1 enables typical bags and packages to be scanned in one scan.

ThreatScan®-LS3 is a compact yet powerful x-ray scanning system that can penetrate steel up to 40mm at 120kV and up to 60mm at 150kV. The 305mm x 256mm imaging area enables typical bags and packages to be scanned in one scan. The complete system fits securely into a backpack.

3DX-Ray recently sold sixteen units of ThreatScan®-LS3 to an undisclosed southern European security agency.

So, if you are responsible for the security of your organisation, you should seriously consider making a portable x-ray system part of your team's equipment toolbox. But remember, seeing things in black and white is no longer good enough! ■

REFERENCES

- 1 <https://www.europol.europa.eu/publication-events/main-reports/european-union-terrorism-situation-and-trend-report-2022-te-sat>
- 2 <https://www.atf.gov/file/166841/download>