ProtectUK

Attack methodology: Vehicle bombs

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1. Introduction – Vehicle-borne Improvised Explosive Device (VBIED)

A VBIED is a vehicle which contains and delivers an explosive device to a target. The vehicle may be old or new, inexpensive or valuable, liveried or plain, blend into most situations and/or be modified to prevent detection. VBIEDs may range in size e.g. bicycles, cars, trailers, vans and large goods vehicles and have historically caused significant casualties when detonated near to or within crowded places or buildings. Injuries and fatalities are often greater when additional items are added to the device such as nails, nuts or bolts, or when structures or objects near the explosion shatter or fragment. It is likely that terrorists will continue to try and carry out such attacks in the UK. Such attacks may be multi-layered, including firearms, weapons (including fire as a weapon), or any multiple combination.

You should be aware of the following, which may indicate suspicious behaviour:

- unusual behaviour of the driver/rider
- unusual characteristics of the vehicle

1.1 Behaviour of the driver/rider is unusual

This may include:

- buying or renting a vehicle for cash, or without identity documents, or using false or forged identity documents. Can your staff readily identify forged documents such as driving licences?
- rapidly parking and the occupants leaving the vehicle. Do your staff monitor their surroundings? How good is their situational/environmental awareness?



- showing signs of stress, or concealment of their physical features when buying, renting, or parking the vehicle, or when obtaining potential IED components. Could staff readily recognise and more importantly respond and report suspicious customers at your premises?
- conducting hostile reconnaissance before the event. Terrorists will regularly carry out hostile reconnaissance and undertake ‘dry-runs’ to test the security response. How might your staff identify such activity in your workplace?

Read more about Hostile Reconnaissance.

1.2 Characteristics of the vehicle are unusual

This may include:

- the vehicle appearing out of place or potentially abandoned. It may be illegally parked, have hazard lights or the headlights left on

- the vehicles contents appearing out of place, such as visible gas canisters, wires, or modified electrical items such as alarm clocks and mobile phones
- the registration details differing between the licence plate and the windscreen permit(s)
- the licence plates appearing newly attached, or with obscured characters to avoid recognition
- a modified vehicle shell, such as a different body structure or patched paintwork
- the vehicle sitting low on the rear axle (indicative of a heavy load in the boot or under the back seat)
- the vehicle emitting smells such as gas or fuel
- the presence of smoke within the vehicle

Trust your instincts. If you suspect it, report it.

Call 999 if you suspect a VBIED

2. Under-Vehicle improvised Explosive Device (UVIED) Guidance

Under-Vehicle Improvised Explosive Devices (UVIEDs) are small explosive devices, typically attached to, or placed underneath a vehicle, intended to kill or seriously injure the vehicle's occupants. Depending on the design, size and placement of the device, they may also result in the injury or death of others in the immediate vicinity and/or cause damage to the surrounding infrastructure.

Any individual or organisation likely to be targeted by terrorists or extremists should consider their risk and vulnerability against this attack methodology.

UVIEDs are improvised and therefore come in a variety of shapes and sizes. Different containers and camouflage have been used and attempted, including, but not exclusively, the use of plastic lunchboxes, metal piping or wooden boxes. Paint and grease may be used in an attempt to conceal or disguise the UVIED and such devices could be constructed to resemble a legitimate car part.

UVIEDs are likely to be placed in reasonably accessible locations, as those placing them will typically be keen to install and leave the device as quickly as possible.

Historically, UVIEDs have been placed as follows:

- to the underside of a vehicle
- in front, on top of, or behind a wheel

- attached to a wheel arch
- tied to an exhaust
- on the ground under a vehicle

This is not an exhaustive list. UVIEDs are most frequently attached using magnets or adhesives due to the need to deploy the device quickly. UVIEDs can feature a number of different triggers to devices.

Remember: If you suspect a UVIED, you should NOT touch it or the vehicle. You should immediately move away and call 999.

Call 999 if you suspect a UVIED

2.1 Mitigation

Wherever possible, park your vehicle securely. Make use of a lockable garage where available. Should a garage not be available, park your vehicle in a well-lit location where you and/or your neighbours can see it and where any suspicious behaviour is easily detectable. Wherever possible, avoid a set pattern in daily business that could aid the prediction of your vehicle’s location. This includes routes to and from work and set times or days for shopping. Consider installing movement-based lighting systems, CCTV and/or fencing as deterrents. When out and about, consider parking in areas where there is high footfall, or where there are effective security measures in place.



2.2 Search and detection

Avoid relying solely on the above measures. Additional checks should still be made. You may consider that checking your vehicle will draw attention; this is a possibility, but needs to be weighed against the potential impact of a UVIED attack.

There are other ways attention can be drawn to you, but there are no other ways to check for a UVIED.

- Check your vehicle after each occasion it is left unattended in an area that you cannot be certain is secure. Checks should be undertaken at your home first thing each morning; night time is when a vehicle is most vulnerable to tampering
- Check if the vehicle has been left unattended at any time during the day; it can take only a few seconds to plant a device
- Check the ground for any disturbance; this may indicate that the car has been approached or a device buried below
- Park/orientate your vehicle to help you to inspect it. Avoid parking in a poorly lit area and

where there are kerbs and puddles which would hinder your inspection

Do not allow friends or family near the vehicle before you have checked it thoroughly and are satisfied in your own mind that there is nothing unusual or suspicious. Be familiar with the underside of your vehicle, as this will help you to detect anything suspicious. This is particularly important for larger vehicles where the underside may be more complex and provide greater opportunities for the concealment of devices. Photographs may assist memory if they are available at the time of inspection.

2.3 Response to a vehicle bomb

If something suspicious is found, stay calm. Do not touch it or any part of the vehicle or operate a remote vehicle key. Move yourself and anyone else well away from the vehicle. Keep others from approaching the vehicle if possible and it is safe to do so. Once at least 15m away, call 999, ask for the police and explain what has happened. Take cover behind a substantial structure such as a wall or building, avoiding glazed areas. Trust your instincts.

Call 999 if you suspect a UVIED

2.4 Considerations for site security managers

Understand the threat posed by vehicles entering or in close proximity to your site. Whilst the principal risk is likely to be posed by VBIEDs with the potential to cause catastrophic damage to structures and mass casualties, the vulnerability of your staff should also be considered. To mitigate these risks, consider limiting and controlling vehicle access to your site as far as possible. For those vehicles requiring access, consider screening vehicles in accordance with your risk assessment, with staff proactively looking inside vehicles at vehicle access control points in order to identify any suspicious items. A general increase in vigilance around your site will also assist in deterring any hostile activity.

There are various methods of sophistication with regards to vehicle screening. These include pole-mounted mirrors and cameras, permanent or temporary drive-over inspection systems (for use at site entrances) and vehicle mounted detection systems (for specific, high-risk vehicles). It is advised equipment solutions only be procured as a result of a robust risk assessment and analysis of the operational requirement as a part of a holistic approach to security.

It is important to take advantage of the existing topography in creating ‘stand-off’ distance between

premises/staff and vehicle access and parking points.

Remember - Every Metre Matters - The greater the distance between any such device and staff members or property, the less impact any such device is likely to have.

Read more about Hostile Vehicle Mitigation (HVM)

Read more about Access Control

Read more: CPNI's Hostile Vehicle Mitigation web page – information, advice and guidance

KEYWORDS
VEHICLE AS A WEAPON
HOSTILE VEHICLE MITIGATION
RISK ASSESSMENT
SECURITY MEASURES
BOMB THREAT
PALS GUIDANCE
PUBLICLY ACCESSIBLE PLACES
PUBLICLY ACCESSIBLE LOCATIONS