

Dangerous Deception: Hoax Improvised Explosive Devices and their Impact on Prehospital Medical Care During Terrorist Attacks

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EOD: explosive ordinance disposal
IED: improvised explosive devices

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Introduction

Several recent high-profile attacks around the world have involved the tactical deployment of hoax improvised explosive devices (IEDs) by terror groups. The perpetrators of three incidents in London (United Kingdom) wore fake person-borne IEDs of varying sophistication (Figure 1), as did those of the 2020 Vienna attack, which killed five and injured 23.^{1–7} The attacker in the Nice Bastille Day attacks of 2016 was also found to have a hoax grenade in the cabin of the truck used to kill 86 people and wound 434 others.⁸ The following discusses terrorists' potential motivations for the use of hoax IEDs, along with the tactical medical consequences of their use.

Terrorist Motivation

Terrorists may be motivated to use hoax IEDs for a range of reasons and the academic literature in this area is limited. Lacking the resources to acquire or build real weapons, lone actors may employ easy-to-produce counterfeits as achievable alternatives to enhance the perceived lethality of their attacks and exaggerate their destructive capabilities. As such, hoax devices function as a primary intimidation tool or as a secondary force multiplier in conjunction with real, bladed weapons, intentional vehicular assaults, or firearms. Perpetrators could also view hoax IEDs as a means of delaying law enforcement intervention and causing unnecessary resource expenditure or diversion.⁹

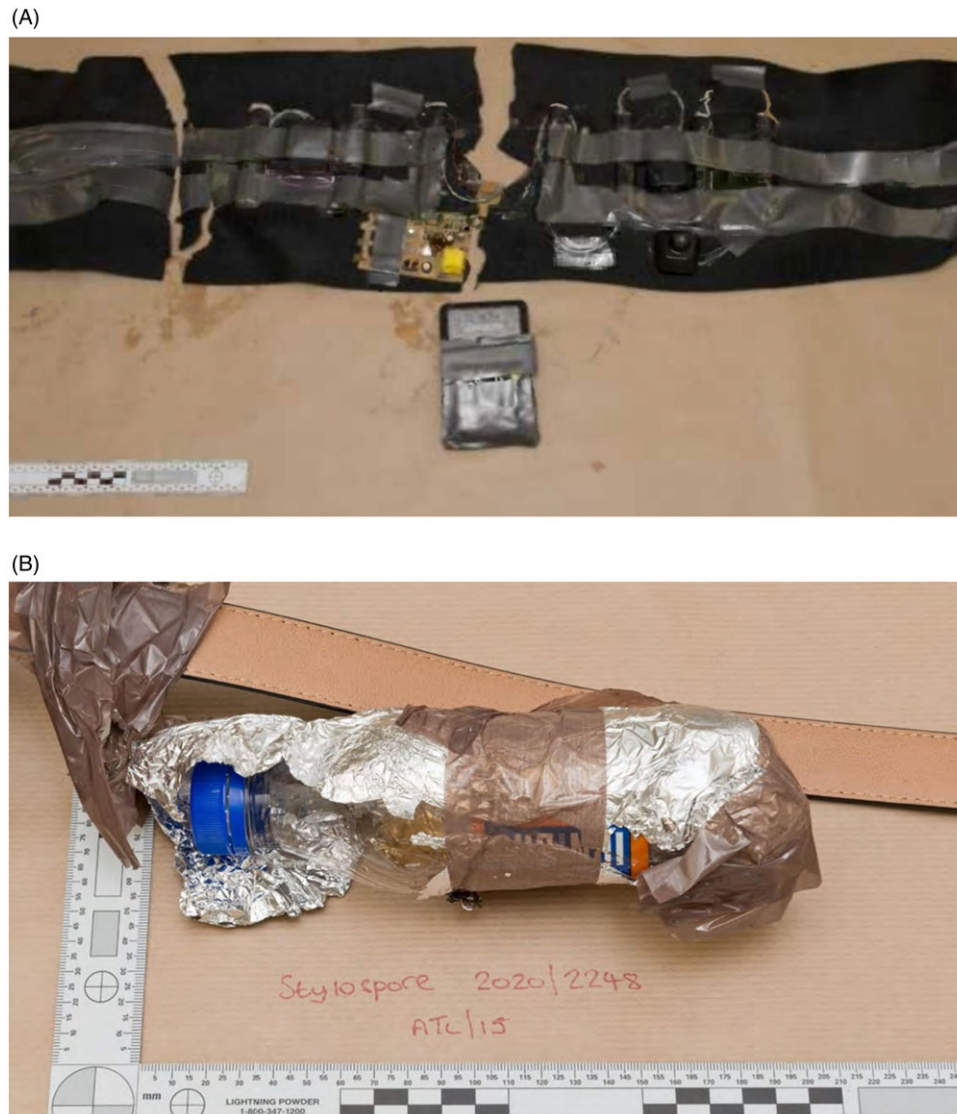
There were 348 hoax device incidents in the United States in 2021, with the majority being IED-type hoax devices.¹⁰ In the United Kingdom, while one recent incident attributed to the Irish Republican Army saw the use of a hoax device,¹¹ Islamic extremism was the reported motivation of the perpetrators in most attacks involving hoax devices and injury to victims by other means.

Islamic extremists could be drawn towards martyrdom and the notion of “fedayeen,” a term that translates as “those who sacrifice themselves” - the act of dying for a cause one believes in with a reward in the afterlife.¹² This concept has been exploited by extremist groups to motivate their followers to continue fighting even in the face of overwhelming odds.¹³ As suicide is “haram” (forbidden by Islamic law), terrorists may also use fake suicide vests to induce “suicide-by-cop,” whereby a person deliberately provokes law enforcement officers into using deadly force, thus avoiding direct responsibility for their own death. Acts of terrorism involving suicide also have a wider negative psychological impact on society and higher levels of media coverage compared to non-suicide methodologies; a hoax IED permits terrorists to take advantage of this phenomenon without contravening Islamic law.¹⁴

Impact on Medical Care

The areas around evolving terrorist incidents have been described in terms of hot (area in which attackers are present), warm (an identified threat remains, but attackers thought to be no longer present), and cold (control measures have been implemented and safe enough for non-specialist responders to enter) zones. These designations provide a useful framework for response planning and defining the responsibilities and capabilities of emergency service personnel with tactical training and personal protective equipment, but real-world implementation can be problematic.¹⁵ The presence of a potential IED means an area is considered “hot” even after the perpetrators have been incapacitated by law enforcement until the device can be confirmed as non-functional. This focus on scene safety is vital to





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Figure 1. Photographs of Hoax Improvised Explosive Devices (IEDs) from the (A) Fishmongers Hall and (B) Streatham Common Attacks.

Note: The former was a complex hoax device composed of cannibalized computer console parts, the latter a low-cost composite of a soft drink bottle, tape, and tin foil. Photographs reproduced with permission from UK Metropolitan Police and available online at: <https://news.sky.com/story/fishmongers-hall-terrorist-used-very-realistic-suicide-belt-made-from-x-box-and-weightlifting-belt-inquest-told-12327115> and <https://news.sky.com/story/sudesh-amman-streatham-terror-attacker-spent-mothers-20-on-fake-suicide-belt-inquest-hears-12374314>.

prevent first responders becoming victims themselves given that explosives and bombings represent the most common mode of attack deployed against emergency service personnel.¹⁶

During a marauding terrorist attack, regardless of weapon type or systems used, the time to both initial life-saving interventions and transport to definitive care increases due to the inherent difficulty of accessing casualties in the warm zone and subsequent movement from the warm to cold zones and on to definitive care. These delays lead to preventable deaths, especially in penetrating trauma where time to definitive care is the primary variable that affects survival.¹⁷

The delay in the provision of medical care to victims caused by the tactical considerations of marauding terrorist attacks has been

described as a therapeutic vacuum.¹⁸ Victims trapped in this vacuum suffer excessive hypoxic/ischemic burdens that could have been limited by simple measure such as hemorrhage control, airway maneuvers, or chest decompression and results in higher morbidity and mortality than would be predicted on the basis of injury alone.¹⁹

While law enforcement and Emergency Medical Services are evolving systems to minimize these delays, the presence of a potential explosive device on scene will inherently complicate the extrication of patients. There is also the potential for more subtle hoax IEDs to only be discovered after neutralization of the perpetrators; prehospital trauma teams may be told to evacuate to a safer position, further delaying life-saving intervention and

complicating the delivery of quality care. In jurisdictions that do not have integrated teams to provide care in the warm zone, the delay to treatment can persist even after a scene or area is declared safe enough for non-specialist responders to enter by law enforcement.²⁰ An understanding of the variables affecting the therapeutic vacuum is paramount to victim outcomes.

Potential Solutions

Means to minimize delays to treatment caused by fake IEDs can be thought of in terms of technical, procedural, and educational solutions which parallel recent, broader advances in tactical medicine. Technical solutions fall within the law enforcement counter-terrorist and explosive ordinance disposal (EOD) remit and may include early identification of devices as non-functional (eg, permanent embedding of EOD trained staff on counter-terrorist teams) or the use of ballistic shields or armored vehicles to facilitate rapid extrication of victims to safer areas.

A shift away from the dogmatic approach to defining areas of a scene and which responders can enter when would enable teams and individuals to apply dynamic risk assessments to the specific environment they are currently facing. Adaptable teams capable of recognizing where the balance of probability lies in terms of risk could decide whether medical personnel can be brought forward, or if patients would need to be extricated to a safer area. This solution was implemented in recent United Kingdom Joint Operating Procedure guidelines.

The latter is reliant on effective joint-operability training to enable effective decision making and communication between emergency medical personnel and law enforcement officers at terrorist incidents. Enhancing the medical capabilities of tactical law enforcement officers facilitates early initial life-saving intervention, even at scenes where hazards prevent rapid entry by medical personnel. Similarly, continued public education efforts such as the “Stop the Bleed” campaign enable bystander intervention by members of the public.

Conclusions

The immediate aftermath of a terrorist attack is chaotic, confusing, and frightening. Terrorists are relying on prolonged fear and confusion to have maximum lethal impact on people injured. If that can be done cheaply and without breaching the threshold for detection by authorities, as often happens while acquiring components for functional IEDs, it should be expected of them to do so.

Responding to a major, complex marauding terrorist attack employing mixed modalities in which a hoax IED has been deployed presents a significant risk management challenge. Law enforcement personnel and Emergency Medical Service providers must understand the potential impact of this tactic on the competing priorities of scene safety and timely delivery of care.

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