



# Domestic Improvised Explosive Device (IED) Threat Overview



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# Overview

- Improvised Explosive Device (IED) Threat
- Terrorist IED Tactics, Techniques, and Procedures (TTP)
- Migration of IED TTPs to Homeland
- Terrorist Use of the Internet for IED Training
- Refinement of Known Tactics
- Evolving Tactics
- Emerging Threats
- Homemade Explosives and Devices from Household Items
- Abundance of Targets
- Domestic Radicalization
- Conclusion



# Improvised Explosive Device (IED) Threat

The use of IEDs represents the most likely domestic threat to the United States, our citizens, and way of life.

- IED attacks remain the primary tactic for terrorists seeking relatively uncomplicated, inexpensive means for inflicting mass casualties and maximum damage.
- Continued global terror attacks, along with IED use in Iraq and Afghanistan, have shown that the threat is adaptive and difficult to counter.
- The latest National Intelligence Estimate (NIE) and information obtained from *TRIPwire* jihadi exploitation indicates continued terrorist intent to attack the homeland.

***“Use of a conventional explosive continues to be the most probable al-Qa’ida attack scenario. The thwarted UK aviation plot last summer and the other major threat reports that we have been tracking all involve conventional [non-WMD] bombs.”***

*-Annual Threat Assessment of the Director of National Intelligence  
Jan. 11, 2007*



# Domestic IED Threat Overview

## TTP Migration, Refinement, and Evolution

### Domestic IED Threat Overview



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# Terrorist IED Tactics, Techniques, and Procedures

Constantly evolving terrorist tactics, techniques, and procedures (TTP) present unique challenges to those responsible for protecting potential targets.

Key threat characteristics of terrorist IED TTPs include the following:

- Use of the Internet to share IED acquisition, manufacturing, and employment knowledge;
- Homemade explosives (HME) or other commercially available components such as electronics; and
- Large vehicle-borne IEDs (VBIED), such as those used in the 1993 World Trade Center and 1995 Oklahoma City bombings, and waterborne IEDs (WBIED) in maritime attacks similar to the USS Cole incident.



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# Terrorist IED Tactics, Techniques, and Procedures (cont'd.)

- Suicide tactics, including those carried out using VBIEDs, WBIEDs, or focusing on transportation systems, that maximize economic consequences and instill widespread fear and panic, as demonstrated in the July 7, 2005 London mass transit bombings;
- Remote-controlled IED (RCIED) initiation methods used frequently in Iraq and Afghanistan with deadly results;
- Multiple, simultaneous attacks in a single city or region, such as the London mass transit and Madrid train attacks;
- Hostile sites or hostage situations in which IEDs present an additional obstacle such as the Beslan school siege in Russia; and
- Secondary devices designed to target those responding to an initial IED detonation.



# Migration of IED TTPs to Homeland

**Terrorist TTPs have historically migrated from high-risk theaters of conflict to soft-target civilian populations, and continue to do so today.**

The use of suicide devices has recently spread from the Palestinian Territories, Iraq, Saudi Arabia, and Afghanistan to Great Britain (2005 London mass transit bombings) and other Western European countries.

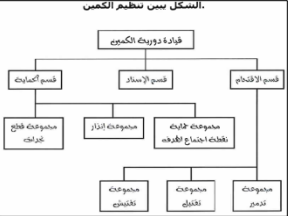





The use of urea nitrate in the 1993 WTC bombing migrated to the United States after Ramzi Yousef, the attack's perpetrator, honed his explosives skills in a terrorist training camp in Afghanistan.

**The TTPs that terrorists learn at training camps abroad are those they will most likely use in attacks on the Homeland.**

# Terrorist Use of the Internet for IED Training

The Internet has become the preferred terrorist training camp. Expanded global connectivity between jihadist groups has allowed terrorists to share and access a wealth of information on IED technology.

Planning Phase	Cell Building	Planning and Recon	Device Construction	Attack Execution
				
Terrorist Documents	<p>“How to Join Al-Qaeda”</p> <p>“How to Wage Jihad Alone”</p>	<p>“Targeting Public Areas”</p> <p>“Surveillance Documents”</p>	<p>“Answers to Questions from the Mujahideen – Car Bombs”</p> <p>“How to Make an Anti-Armored Vehicle Mine”</p>	<p>“Fundamentals in the Art of Kidnapping Americans”</p> <p>“New Methods of Detonating a Suicide Vest”</p>

Jihadists have developed online tools – including instructional videos, interactive subject matter expert forums, and lessons-learned studies – to enable and inspire followers, regardless of location or prior experience.



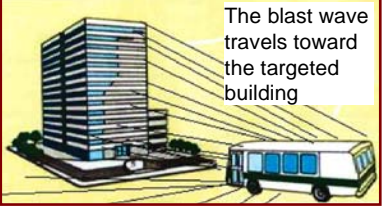
# Refinement of Known Tactics

Innovations in traditional terrorist methods represent a critical threat as they are difficult to anticipate and detect.

Stand-off cards developed and used by the U.S. Government have been translated into Arabic in order for terrorists to refine their VBIED attack tactics.

شكل السيارة	نوع السيارة	أقصى المسافة التي يمكن السير بها بعد الانفجار	مسافة الخطر	مسافة الخطر	مسافة الخطر
	سيارة صغيرة	100 FEET 30 METERS	1,000 FEET 305 METERS	1,250 FEET 381 METERS	1,500 FEET 457 METERS
	سيارة كبيرة	125 FEET 38 METERS	1,250 FEET 381 METERS	1,500 FEET 457 METERS	1,750 FEET 533 METERS
	سيارة نقل	200 FEET 61 METERS	2,750 FEET 838 METERS	2,750 FEET 838 METERS	3,000 FEET 914 METERS
	سيارة نقل صغيرة	200 FEET 61 METERS	2,750 FEET 838 METERS	2,750 FEET 838 METERS	3,000 FEET 914 METERS
	سيارة نقل كبيرة	400 FEET 122 METERS	4,500 FEET 1,372 METERS	4,500 FEET 1,372 METERS	5,000 FEET 1,524 METERS
	شاحنة	600 FEET 183 METERS	7,000 FEET 2,130 METERS	7,000 FEET 2,130 METERS	7,500 FEET 2,286 METERS

**55 Gallon Drum**  
Every barrel contains 476 pounds of ANFO explosive, for a total of about 26,656.



**SIGNIFICANT INCIDENT > ATTEMPTED UK INCENDIARY BOMBINGS (2007)**

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**Overview**

**Incident Date:** 29 June 2007  
**Location:** London, England; Glasgow, Scotland, United Kingdom  
**Target:** Tiger, Tiger Nightclub, Glasgow International Airport, Airports, Nightclubs  
**Tactic:** Coordinated Attack  
**Fatalities:** 0  
**Injuries:** 1

**Incident Details**

**Incident Description:** At approximately 1:11 call near a popular abandoned silver-g reported that the ca nightclub within the



**TRIPwire**

**Vehicle Borne IED Identification Guide: Parked Vehicles**

**Potential Indicators:**

- Heavy, sagging vehicle (rear-weighted)
- Illegally parked or near authorized vehicle entrances or crowded access points
- Covered or tinted windows
- Large containers on seats or cargo area: bags, boxes, barrels, tanks
- License plates removed or altered
- Odor of gasoline, propane, acids, or chemicals
- Visible wires, switches, batteries, or antennas inside or on vehicle
- Cargo concealed with tarp or blanket

**IF OBSERVED, CALL DISPATCH OR COMMUNICATIONS CENTER**

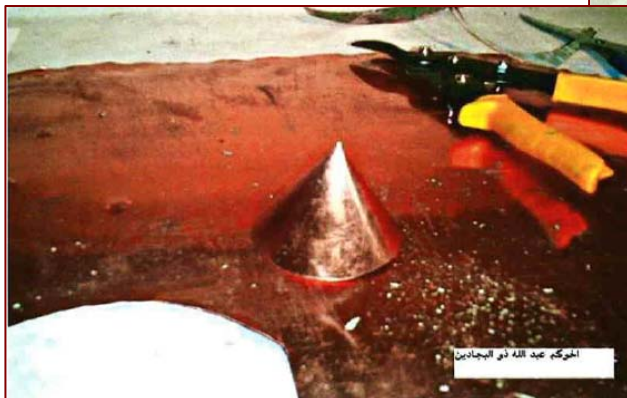
Law enforcement disrupted the 2007 attempted incendiary bombings near London's theater district after they noticed an abandoned Mercedes with gas cylinders nearby and smoke emanating from the vehicle.

In order to mitigate this threat, it is crucial to emphasize the collection of terrorist materials detailing variations on traditional TTPs.

# Evolving Tactics

Terrorist source material on the Internet details emergent and evolving terrorist tactics.

Explosively formed projectiles (EFP) have had a profound impact on U.S. military forces in Iraq since the devices' appearance in early 2004. The ability of EFPs to penetrate blast resistant armor have made them some of the most destructive IEDs to date.



Instructional materials on the manufacture of Iranian-style anti-personnel devices have been released online by a prolific IED expert.

Identifying new or emerging IED tactics is imperative to understanding the next stage in a weapon system's evolution and the effect it will have on domestic preparedness and response efforts.



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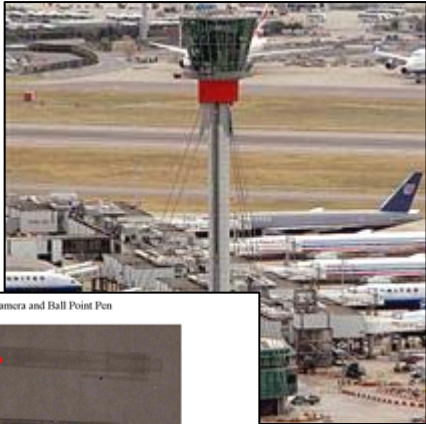
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# Emerging Threats

**Terrorist use of new hard-to-detect dual-use materials and innovative components are on the cutting-edge of IED tactics.**

**In the summer of 2006, terrorists developed innovative devices and tactics to initiate IEDs on board airliners with liquid explosives and detonators hidden in cameras. These methods were widely disseminated on terrorist websites and collected by *TRIPwire* analysts.**



INITIATOR >  
CAMERA FLASH DETONATOR IMPROVISED METHOD #1

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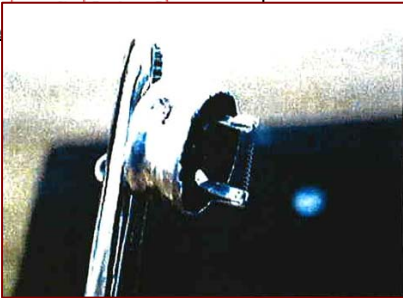
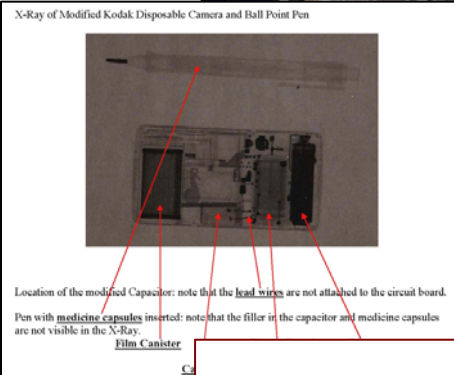
**Overview**

**Classification:** Electrical  
**Category:** Improvised  
**Type:** Detonator

**Description:** This electric detonator is improvised from a camera flash. The flash capacitor is hollowed out and filled with sensitive primary explosives, and a tungsten wire is fixed between two prongs within the cap and implanted in the explosive material. This functions as a bridgewire and delivers an electrical charge to the primary explosives when the flash is operated, causing the detonator to function.

**Initiator Components**

**Explosives:** Lead azide  
**Casing Material:** Aluminum  
**Bridge Wire:** Tungsten  
**Terrorist Prep:** None



**Analysis / Trends**

Based on the terrorist's instructions in tampering with the flash, several indicators might be present. Parallel wires between the capacitor and the circuit board that have been severed and reattached with small loops could indicate that the capacitor has been removed. Small incisions on the camera's shell, on the capacitor's metal exterior or plastic covering, or no wrapping at all, could suggest tampering. Once converted into a detonator, the flash could not function normally, so asking people with cameras to operate the flash while gauging their behavior could identify potential terrorists. However, the document suggests staging the operation out of airports in Africa or in poorer countries, where security may not be as tight as in the U.S. This increases the odds that the device could be snuck past security.

# Domestic IED Threat Overview

## Homemade Explosives and Devices

### Domestic IED Threat Overview



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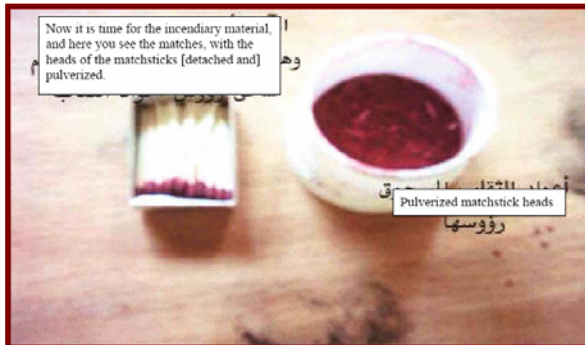
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# Homemade Explosives and Devices from Household Items

Terrorists use the Internet to share instructions for manufacturing innovative homemade explosives (HME) from common household items and readily available chemicals.

Recipes for improvising explosives are readily available on the Internet and in print in both English- and Arabic-language.



Terrorists also publish inventive initiator constructions using widely available materials, such as modified Christmas lights filled with ground matchstick heads.

Terrorists have the intent and capability to manufacture homemade explosives.



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# Domestic IED Threat Overview

## Targeting

# Domestic IED Threat Overview



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# Abundance of Targets

**Terrorists worldwide have demonstrated their intent and capability to attack both soft targets and “hardened” infrastructure.**



**Terrorists are actively seeking to improve methods of bombing hardened targets, such as well-protected critical infrastructure with defined stand-off zones.**



**IED attacks on soft targets such as public transportation, shopping malls, and hotels could lead to immense loss of life and have profound psychological effects.**

**By virtue of being an open society, the United States has infinite targets, both hard and soft, which are susceptible to a terrorist bombing attack.**

# Domestic IED Threat Overview

## Domestic Radicalization

# Domestic IED Threat Overview



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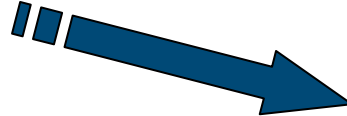
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# Domestic Radicalization

Individuals sympathetic to a particular cause or movement are increasingly becoming radicalized at home and carrying out attacks within their own country.



Terrorist groups often utilize the Internet to disseminate jihadist propaganda, in hopes of radicalizing individuals potentially sympathetic to their cause.

Western Europe faces a significant homegrown jihadist threat, as a significant number of European Muslims have been radicalized by the jihadist movement.

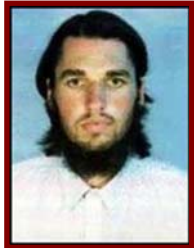


Jihadists may be radicalized from a variety of sources, including theaters of war, terrorist training camps, prisons, the Internet, and local mosques.

# Domestic Radicalization (cont'd.)

In the United States, prisons, radical mosques, and the Internet pose particular concern as possible sources for jihadist recruitment and radicalization.

Prisons serve as ideal recruitment venues since they are home to a large number of idle, violence-prone, impressionable young men.



Adam Gadahn, an English-speaking American who became a prominent Al-Qaeda spokesman, converted to Islam at a California mosque, before moving to Pakistan and becoming further radicalized.



Jose Padilla, a Chicago street gang member, converted to radical Islam while in prison and planned to set off a dirty bomb in 2002.

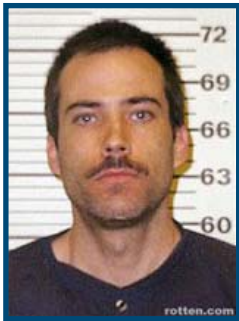
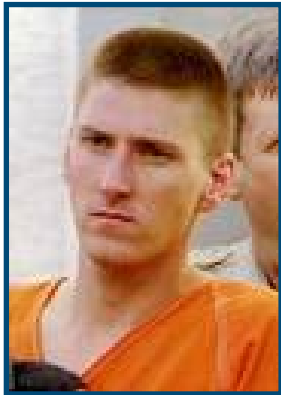
In July 2005, Kevin Lamar James founded a Sunni Islamic extremist group, Jam'iyyat Ul-Islam Is-Saheeh (JIS), while incarcerated at a California state prison. He recruited other inmates and planned attacks on targets in the Los Angeles area.



# Domestic Radicalization (cont'd.)

**Terrorists may also be radicalized by radical Christian movements supporting anti-government and/or white supremacist beliefs, or fringe environmental groups advocating eco-terrorism.**

**Timothy McVeigh was influenced by militia movements and upset with the U.S. Government's siege of the Branch Davidian compound outside Waco, Texas. At the time, the 1995 Oklahoma City bombing was the deadliest terrorist attack committed on U.S. soil.**



**Eric Rudolph, the perpetrator of the 1996 Olympic Park bombing in Atlanta, as well as attacks on domestic abortion clinics and a lesbian nightclub, was connected to the radical Christian Identity movement.**

**To date, most of the perpetrators of terrorist attacks in the United States have been radicalized by non-Islamic movements.**

# Domestic IED Threat Overview

## Conclusion

# Domestic IED Threat Overview



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# Conclusion

The use of IEDs poses the most likely terrorist threat to the United States and its citizens today.

- The trend of terrorist TTP transfer from theaters of war to civilian populations is more prominent today due to the wars in Iraq and Afghanistan.
- Terrorists constantly refine and evolve their tactics to adapt to new security measures, making it increasingly difficult for law enforcement and authorities to effectively counter IED attacks.
- The Internet facilitates training and communication among terrorists, serves as an effective recruiting tool, and encourages lone wolf attacks.



# Conclusion (cont'd.)

- Many IEDs utilize homemade explosives, which are made from common household items that are easily accessible.
- An abundance of targets exist throughout the United States, especially soft targets, which if attacked, could have profound psychological effects on U.S. citizens.
- Although the United States has a well-integrated and generally economically-advantaged Muslim population, domestic radicalization may increase, as has already occurred in Western Europe.
- Law enforcement must anticipate new and evolving TTPs in order to deter, prevent, protect against, and respond to future IED attacks at home.





# Homeland Security



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