



IED Threat and Defeat Strategies



- Definition
- Why are IEDs Used
- Counter IED Principles
- Indicators of IED Threat
- IED Defeat Strategy



Definition of an IED

An improvised explosive device (IED) is a weapon that is fabricated or emplaced in an unconventional manner incorporating destructive, lethal, noxious, pyrotechnic, or incendiary chemicals designed to kill, destroy, incapacitate, harass, deny mobility, or distract.

JP 3-15.1



The Problem: Why Use IEDs



There has been a dramatic increase in the use of IEDs which involve several factors:

≻ Low-cost:

>IEDs are cost efficient

► Easily Disguised:

- ➤ IEDs can be easily hidden anywhere.
- ➤ Moving convoy, buried IEDs
- When traveling at convoy speeds, IEDs can be difficult to identify

► Low Risk:

➤ IEDs pose a minimum risk for the enemy. They can fire from an isolated area which makes them hard to find.

> Efficient:

➤ IEDs are an efficient psychological warfare tactic.

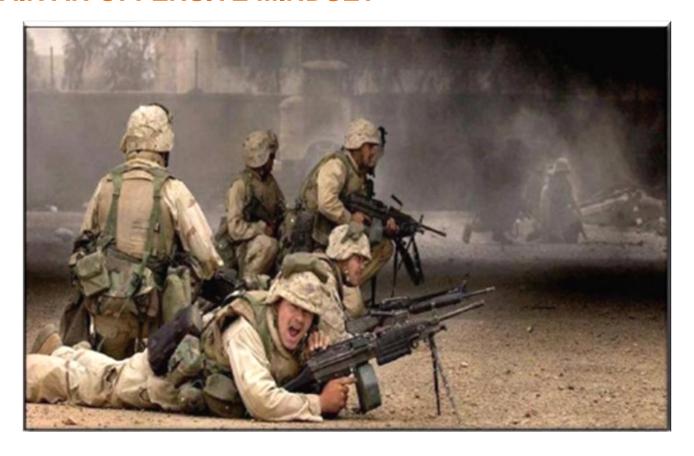
IED TTP Trends:

- Enemy will continue to develop more lethal, more high-tech IEDs
- But, enemy will continue to employ previous IED TTPs that have been effective
- Expect to see:
 - More IEDs designed for specific targets, including MRAP
 - More house-borne IEDs against CF living among populace
 - More underbelly & EFPs against CF & suicide vest IEDs against HVTs





MAINTAIN AN OFFENSIVE MINDSET



IED attacks are contact with the enemy. Every leader must be prepared to rapidly develop the situation in order to gain and maintain contact with the enemy. If the situation allows, the leader advances his unit by fire and maneuver to ultimately kill or capture the attackers.





DEVELOP AND MAINTAIN SITUATIONAL AWARENESS



The rapid evolution of insurgent tactics, along with the challenge of conducting military operations in urban terrain require Coalition Forces to develop and maintain a heightened state of situational awareness (SA) while on patrol. Good SA is key to seeing, understanding, and then acting on pre-attack indicators to deny the enemy the advantage of surprise.





STAY OBSERVANT



Most IEDs found before detonation are located by the naked eye. Every soldier should continuously scan their assigned sector in search of IED indicators. Be deliberate, understand that rushing greatly diminishes the likelihood of finding an IED before it finds you...know where/when to use speed.





AVOID SETTING PATTERNS



The effectiveness of any TTP depends on whether the enemy has discovered the means to avoid the intended effect of that TTP. The AIF watch CF to identify any patterns that can be used against you. Vary your patterns frequently and limit your predictability.





360 DEGREE SECURITY



Enemy activity that blends with the local populace is hard to detect and can threaten the unit from any direction. Vigilant 360 degree security must be maintained at all times, whether mounted or dismounted. Don't allow your focus to become restricted or channeled, train to look at the terrain from the enemy's perspective.





MAINTAIN STANDOFF



When practical keep a safe distance, and wherever possible, maintain frontal and overhead protections most likely to conceal an IED e.g. shoulders of roadways, medians, intersections, static vehicles along the route, etc. Keep all civilian traffic a safe distance away from the patrol.





MAINTAIN TACTICAL DISPERSION

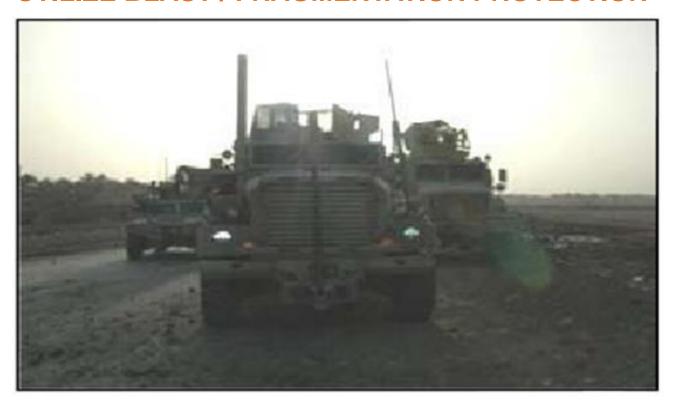


Maintaining tactical intervals appropriate to the situation reduces the likelihood that multiple vehicles will receive damage from and IED attack. Leaders must consider CREW protection envelopes when establishing tactical intervals and fight the tendency to "bunch-up" at choke points or during halts.





UTILIZE BLAST / FRAGMENTATION PROTECTION



Individual and vehicle armor provide a measure of protective capability against IED blasts. Depending or armor to cover poor tactical practices is not wise. Units should avoid becoming too tied to armor at the expense of dismounting when appropriate.



Counter IED Principles CENTRAL



UTILIZE TECHNOLOGY







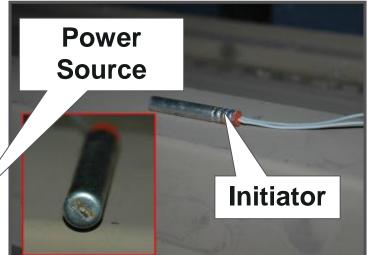
5 BASIC IED COMPONENTS

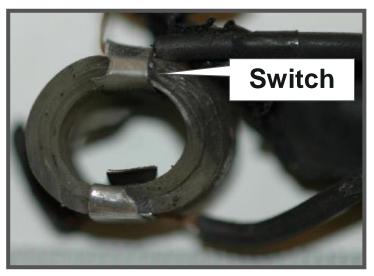
- CASE / CONTAINER (Fragmentation, Concealment)
- MAIN CHARGE (High Explosive or Incendiary)
- POWER SOURCE (Battery-Capacitor)
- SWITCH / CIRCUITS (Methods of Functioning)
- INITIATOR (Detonator, Blasting Cap)















Identify Visual Indicators of IED What Constitutes an IED Threat?





CASE OR CONTAINERS

Usually readily available materials used to disguise the device and allow it to blend in with its surroundings.







MAIN CHARGE

- Military Ordnance
- Commercial & Military Explosives
- Home Made Explosives (HME)





MILITARY ORDNANCE





Military Ordnance is preferred, because it is already, packed with high explosives, and readily available.





COMMERCIAL OR MILITARY EXPLOSIVES



PE-4 Plastic Explosive

Packaged blocks of TNT





HOME MADE EXPLOSIVES



HME can have a variety of odors:

- Fruity / chemical (TATP)
- Vinegar / rotting (TATP)
- Dead fish (HMDT)
- Nail polish remover (TATP)
- Strong Citrus
- Fuel (Diesel or Camp stove fuel)
- Strong Ammonia or Urine-like
- Almonds
- Sweet, Cinnamon or Cocoa.

Homemade Explosives (HME) Defined: A combination of commercially available ingredients combined to create an explosive substance. Because HME is "homemade" it can take on a number of different appearances and a variety of colors due to manufacturing impurities and available precursors.





SWITCHES AND CIRCUITS

Electrical or mechanical system used to initiate or trigger an IED







POWER SOURCE

Different types of IEDs require different amounts of power____







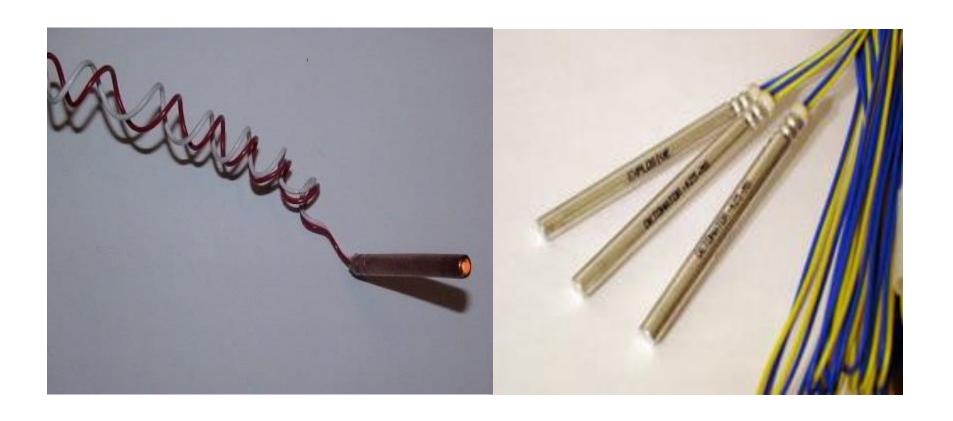
Larger batteries are use for CWIEDs that is stretched out over farther distances because electricity dissipates as it travels though the wire





INITIATORS

The Initiator, such as blasting caps, function the device







Types of IEDs

Victim operated IED (VOIED)

- Pressure (Crush Switch)
- Passive Infrared Receiver (PIR)







Pressure activated IED

- Very Low-Tech; commonly used material
- Defeats technology
- Easy to install; non-technical operation
- Usual placement is at locations traveled frequently by Coalition Forces











Passive Infrared receiver

Motion/Heat Sensor







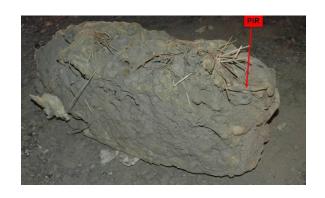




- Device can be armed by radio controlled device (CDP - Telemetry Module) to accurately target victim
- Vehicle passes through Passive Infra Red field of view causes detonation

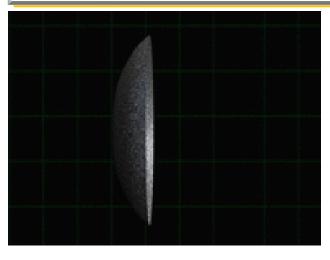


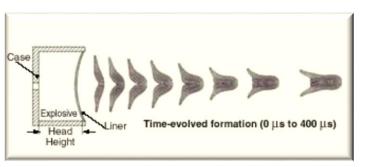






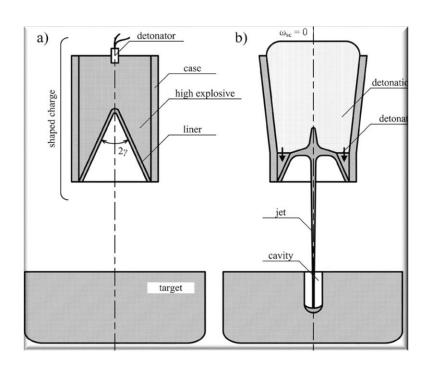








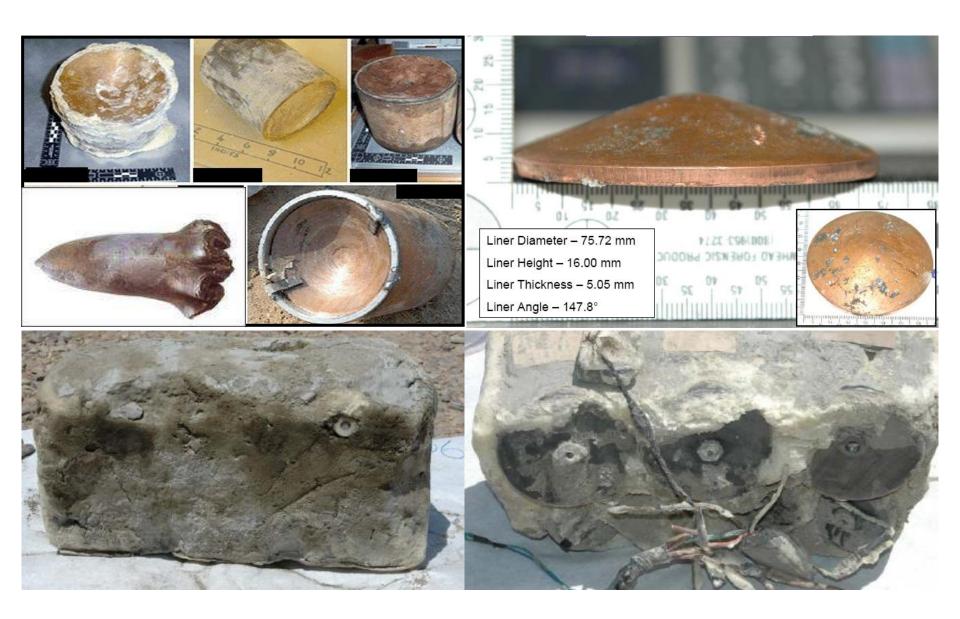










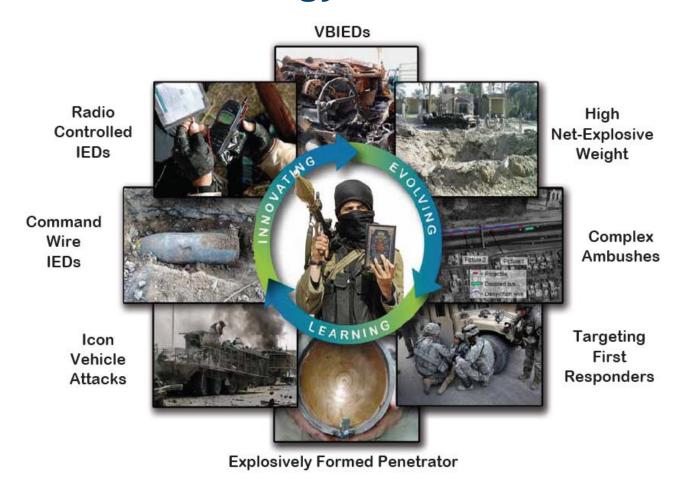




IED Defeat Methodology



Defining the Problem and Establishing an IED Defeat Methodology





Questions (SAME)



