



MCoE IED Defeat

“The battle against terrorism is not only a military fight but primarily a battle of information.” Ahmed Chalabi, President of the Governing Council of Iraq

Volume 6, Issue 3

March 01, 2015

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(CAC login/Registration may be required for link access)

In recent weeks, attacks against protected or sensitive sites have surfaced in the news. The hotel where a Turkish delegation was to have a meeting in Somalia was hit with a vehicle-borne improvised explosive device (VBIED), the Algerian embassy in Libya was hit with an IED, a mosque in Pakistan was hit by a person-borne improvised explosive device (PBIED), and a mosque in Aleppo, Syria was hit with an IED that was detonated in a tunnel under it. Another element worth mentioning is the use of drones near our own Presidential office. Although the drone was not armed with a lethal device, each of these events should lead us to ask ourselves if we are prepared for the overall threat or capabilities that the enemy has available to bring to bear?

Preparations can be made after taking into consideration the terrain and the enemies past usage of improvised explosive devices (IEDs) against both fixed sites and patrolling elements (mounted or dismounted). Training should be realistic, tough and must include the enablers you plan on using for the duration of your operation. IEDs are still the cheapest and most effective weapon available, but they also provide the enemy with the opportunity to live and fight another day. The assumption of the enemy not using a particular device against your element is the wrong mindset. Applying each of the nine principles of IED defeat to each training event and combat patrol will save countless lives. The nine principles are: offensive mindset, stay observant, develop & maintain situational awareness, 360 degree security, maintain standoff, maintain tactical dispersion, avoid setting patterns, utilize blast/fragmentation protection, and utilize available technology. (see next page for OE considerations)

The MCoE’s C-IED Team continues to provide quality support to all. Whether it’s live, virtual, mounted, or dismounted training, we are providing each unit with relevant information and life-saving training. Virtual Battle Space 3 will provide your unit with the opportunity to identify issues prior to conducting live training and missions in an IED-laden environment. Threat and IED Awareness briefings will refresh your Soldiers who have multiple deployments and educate newly assigned personnel. Counter Radio Controlled Improvised Explosive Device Electronic Warfare (CREW) training, Hand Held Detectors (HHDs) training, and familiarization of the numerous other enablers will add to your unit’s preparation for upcoming training or deployments. The team can also help Units and Commanders identify effective training applications to help support C-IED learning during “white space” times or periods of budgetary restrictions.



Somali government forces inspect the scene of a VBIED on 22 January 2015



Algerian embassy attacked in Tripoli, Libya on 17 January 2015

Operating Environment Considerations

The IED's Environment

To be better prepared against the threat posed by these devices, the Soldier should remember that IEDs can be employed across a variety of environments.

Devices encountered include:

Aerial:

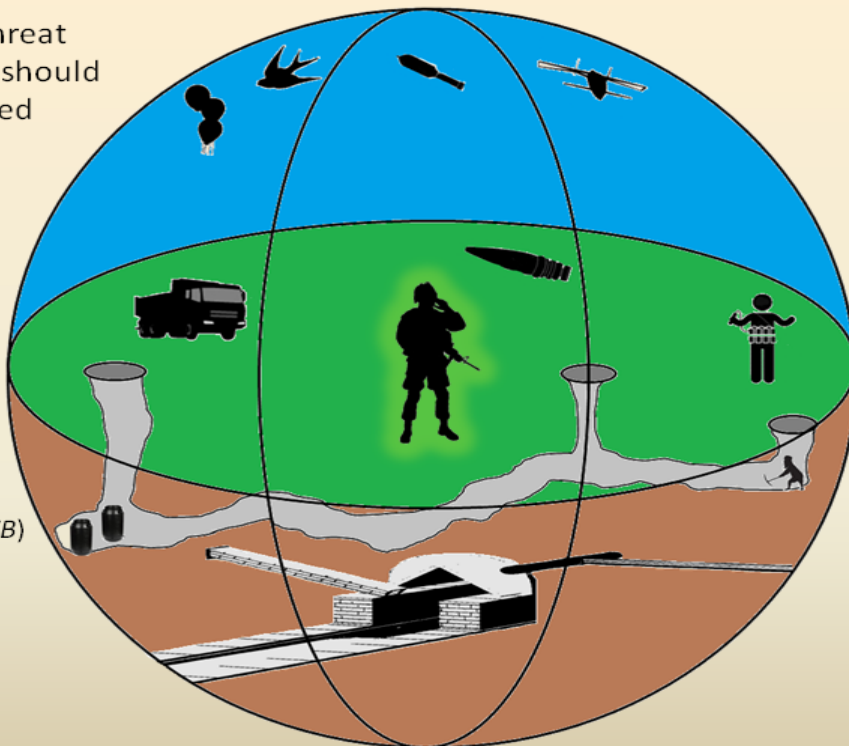
- IRAMs
- UAVs
- Balloon carried
- Bird carried

Ground based:

- Static emplacement (*PP, VO, RC, CW, VB*)
- Mobile (*PB & SVBIEDs*)
- Magnetic (*either of the above*)

Subterranean:

- Tunnels (*includes caves*)
- Sewer systems
- Wells (*man made & natural*)



Improvised Rocket-Assisted Munitions (**IRAMs**), unmanned aerial vehicles (**UAV**), Pressure Plate (**PP**), Victim Operated (**VO**), Radio Controlled (**RC**), Command Wire (**CW**), Vehicle-borne (**VB**), Person-borne (**PB**), and Suicide Vehicle-borne improvised explosive device (**SVBIED**)

C-IED Emerging Technology

Over the past decade, many enablers have been issued to our Soldiers with the intent of finding and/or defeating improvised explosive devices (IEDs). From add-on armor to electronic counter measures, each system provides a certain level of protection and much needed stand-off.

TenCate Advanced Armor, in cooperation with the several branches of the Department of Defense, has been testing a vehicle-mounted system that could increase the chances of survivability. The system will provide our Soldiers the protection they need regardless of size and weight of the vehicle.

The TenCate active blast countermeasure system (ABDS) would be mounted on a vehicle with a series of sensors to detect the blast from an IED. Once a detonation is detected, a counter blast is fired, therefore reducing the risk to the Soldiers occupying the vehicle. ([Learn more](#))



MCoE C-IED Training



Units who wish to augment their lane training can request a Global IED Threat Update. The following items are addressed inside one of these 2-3 hour sessions:

- Counter-IED Facts
- IED TTP sharing
- IED types and typical employment methods
- Mounted and Dismounted attack TTPs used in Afghanistan
- Atmospheric
- CREW concepts
- Introduction to Insider Threats
- Where to find additional C-IED training resources



- The MCoE C-IED Team works hand-in-hand with the Warrior University to share the Best Practices with the Warfighter. This portal is organized as a professional "home" for Infantry, Armor and Cavalry Soldiers, and leaders to facilitate and foster lifelong professional relationships. The mission of Warrior University is to synchronize and integrate all maneuver training so the right Soldiers receive the right training at the right time, regardless of their physical location.
- You will now find material related to the MCoE's C-IED Training Team, AtN, and DCT-MI.

SITUATION: IED attacks are a constant and ever evolving global threat for Soldiers. In response to this the MCoE C-IED Team is developing training to meet the objectives of TRADOC commanders.

WHO: Bravo 1/81st AR

WHAT: Driving Lane which consisted of Mounted Rehearsal and Mounted React to Contact Lane.

WHEN: 24-26 January 2015

WHERE: Delta Delta 2

SUMMARY: 101 Soldiers received instructions on the Mounted React to Contact Lane with the use of 2 non-pyrotechnics devices. This training helps the Warrior's visualize and understand IEDs.

FUTURE: The C-IED Team continues to assist units and to improve training scenarios by providing the most up-to-date information on IEDs and their threats to Soldiers in the operational environment.

Bravo 1/81st AR Driving Lane



SITUATION: IED attacks are a constant and ever evolving global threat for Soldiers. In response to this the MCoE C-IED Team is developing training to meet the objectives of TRADOC commanders.

WHO: Alpha 1/81st AR

WHAT: MRTC Lane which consist of Mounted Rehearsal and Mounted React to Contact Lane.

WHEN: 2-4 February 2015

WHERE: Kilbourne Range

SUMMARY: 120 Soldiers received instructions on the Mounted React to Contact Lane with the use of 2 non-pyrotechnics devices. The training helps the Warrior's visualize and understand IEDs.

FUTURE: The C-IED Team continues to assist units to improve training scenarios by providing the most up-to-date information on IEDs and their threats to Soldiers in the operational environment.

ALPHA 1/81st AR MRTC Lane



C-IED Team Lead Comments

Environmental exploitation, mining, smart bombs, & “tunnel” vision

We have focused on the very basics of IEDs for a long time, and in this regard, the Warfighter has benefitted with a decent understanding of the threat. The enemy knows this as well as he sees his devices rendered useless, or device emplacements, operators, and networks targeted and neutralized. As with any effective program, it adapts and exploits or builds upon what it believes to be strengths and weaknesses.

IED training tends to focus on the predominant deployment of static devices. They tend to be hidden by burying them in some form or fashion. Media and other outlets portray them as they were originally encountered, the road side bomb. The point of this is that we should not fail to address the third dimension of the struggle against IEDs, and that is the elevated seat for a device. We tend to focus our detection efforts towards the ground in front and beneath us. The employment of hand held detectors also mentally reinforces this because we’re sweeping forward and low. The Warfighter must not forget that devices can be placed in positions higher than our search and sweep focus. Never gamble that because you’ve never encountered one higher than dirt level, that the next might be staring you right in the face. A simple measure of assigning a 3D sweep responsibility to the forward element in the patrol, much like the “air guard” of old, could help save lives.

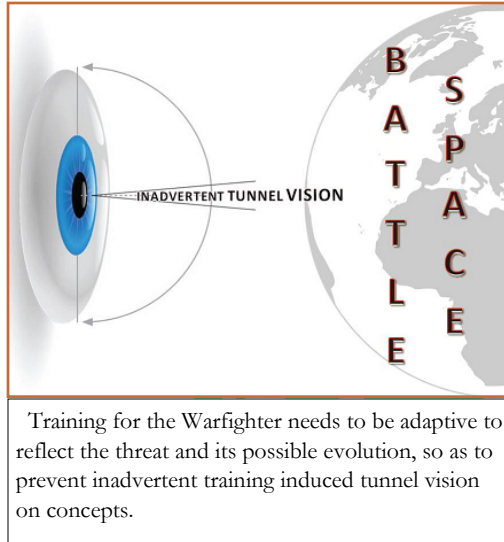
We make our Soldiers and Units practice the 5/25s and Ground Sign Awareness until we hope it has become second nature, but what about when it comes to a “Bigger Picture”? When Unit C-IED cells go to work assessing patterns and networks, they also need to take a more detailed look at the battle space they occupy, beyond the historical choke points, Slow Go terrain, and frequently used attack sites.

Another method of employment that’s increasing in frequency is the use of tunneling and employing large quantities of explosives to target sites (*read fixed-stationary- not likely to move*). The insurgents are getting away with this method, because it’s not a traditional method of employment. Warfighters and leaders should take a quick look at the terrain they’re sitting on and ask if that dimension is exploitable? Are there preexisting tunnels or sewer systems? Can the ground support digging/mining? A YES to any of these questions and the unit has an exploitable position if they’re not taking measures to maintain surveillance towards that avenue.

And lastly, we can’t stress enough, the case of Situational Awareness, when it comes to the threat of roving smart bombs, whether they are in a vehicle or on foot. These provide the insurgent with the most effective investment of their time and money. These systems can strike beyond the typical sites where traffic occurs.

Leaders and trainers must insure that they remain adaptive. The age where our adversarie’s actions were near predictable are now a thing of the past. Their ability to adapt their methods and devices is a significant combat multiplier for them. Training opportunities in addition to the training delivered by the MCoE C-IED training team, training efforts such as the MCoE’s Advanced Situational Awareness (ASA) and the Dismounted C-IED Tactics Master Trainer (DCT-MT) courses, go the additional mile to stress and improve the details aspects and necessity of “All Around” situational understanding and awareness.

The C-IED Team remains committed to ensuring the Warfighter, new or seasoned, receives the most relevant training available and is on-call to support any requesting unit. To schedule training contact, Mr. Tom Dale at 706-545-6577, or Mr. Jerry Niggemann at 706-545-8823, gerald.e.niggemann.civ@mail.mil.



Quick Links:

[RFMSS Homepage](#)

[Waterborne IEDs](#)

[DHS IED Fact Sheet](#)

[ROC-IED Training Link](#)

[MCoE C-IED Smart Guide & Apps](#)

[Marine Corps Center for Lessons Learned](#)

[CREW Training](#)

[Attack the Network Homepage](#)

[West Point Negotiation Project](#)

[Militant Organizations Profiles](#)



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Links of Interest

- **Joint IED-Defeat Organization** @ <https://www.jieddo.mil>
- **JKnIFE C-IED Training site** @ <https://jknife.jieddo.mil>
- **Center for Army Lessons Learned** @ <https://call2.army.mil/>
- **Combined Arms Center** @ <https://ctd.army.mil/external12/BSTPs/ied-tsp/index.asp>
- **Directorate for Counter IED (DCIED)** @ <http://www.wood.army.mil/dcied>
- **Army C-IED Professional Forum** @ <https://www.us.army.mil/suite/collaboration/GetDocument.do?doid=17964848>

(Users should be aware of site maintenance down times)

Blast from the Past “Tunnel Bombs”



The concept of mining/tunneling is nothing new to military operations, from the time the Romans encountered the concept against Germanic tribes, the concept of approaching an enemy unseen, underground has been used on several occasions to great effect. The development of tunnel warfare to bomb can be seen in events ranging from the American Civil War to the Battle of Messines in 1917, where Allied Engineers dug 22 mines under German lines containing a total of over 455 tons of ammonal explosives. Nineteen of them were eventually detonated, killing roughly 10,000 German soldiers. In 2014, Syrian insurgents dug several tunnels and employed explosives (nearly 60 tons) and IEDs underneath both a hotel and an outpost.

Statistical tidbit: In ideal earth, a skilled miner with hand tools can dig up to a cubic foot an hour or more, provided he doesn't need to clean up the debris, but this can be handled efficiently by helpers. In particularly hard rock with poor tools (read in most cases as non-electrical), it can be a cubic foot a week or less. Again this can change with the rotation of “diggers”.

See more on the topic:

- <http://www.umich.edu/~gs265/tunnel.htm>
- http://en.wikipedia.org/wiki/Tunnel_warfare

