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POLICY

2011 Global Explosive Ordnance Disposal Conference and Exhibition



THE DEPARTMENT OF DEFENSE EOD and Humanitarian Mine Action

Colonel Marue "Mo" Quick

Chief, Explosive Ordnance Disposal & Humanitarian Mine Action
OASD Partnership Strategy & Stability Operations

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2011 Global Explosive Ordnance Disposal Conference and Exhibition

NDIA
National Defense Industrial Association

PROMOTING NATIONAL SECURITY SINCE 1919

GLOBAL EXPLOSIVE ORDNANCE DISPOSAL CONFERENCE AND EXHIBITION

“Attacking the Network”

EMERALD COAST CONVENTION CENTER
FORT WALTON BEACH, FL
MAY 4-5, 2011
EVENT #1950

NDIA and the EOD Memorial Foundation present the Global Explosive Ordnance Disposal Conference and Exhibition



Purpose

To welcome, and to provide a brief overview of the DOD Explosive Ordnance Disposal Program to our attendees, industry partners, distinguished visitors, and honored guests, as we assemble for the Second Annual Global EOD Conference and Exhibition to network, exchange ideas, and remember our fallen comrades.



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Agenda

- Welcome
- What is EOD
- Attack the Network
- EOD Capabilities
- EOD Operational Deployments
- Other Missions
- EOD Training
- EOD Integration
- Challenges
- What we still need
- Summary
- EOD Heroes



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The EOD Memorial Foundation is a nonprofit organization dedicated to honoring the legacy of our fallen EOD Warriors by providing for maintenance and upkeep of the physical memorial at Eglin AFB, FL, funding and facilitating the annual EOD Memorial Ceremony & Ball, and providing scholarships to family members of active duty, former, retired, and fallen members of the EOD Community.

<http://www.eodmemorial.org/>



The National Defense Industrial Association (NDIA) is America's leading Defense Industry Association promoting national security. NDIA is proud to provide a legal and ethical forum for the exchange of information between Industry and Government on National Security issues.

www.ndia.org/

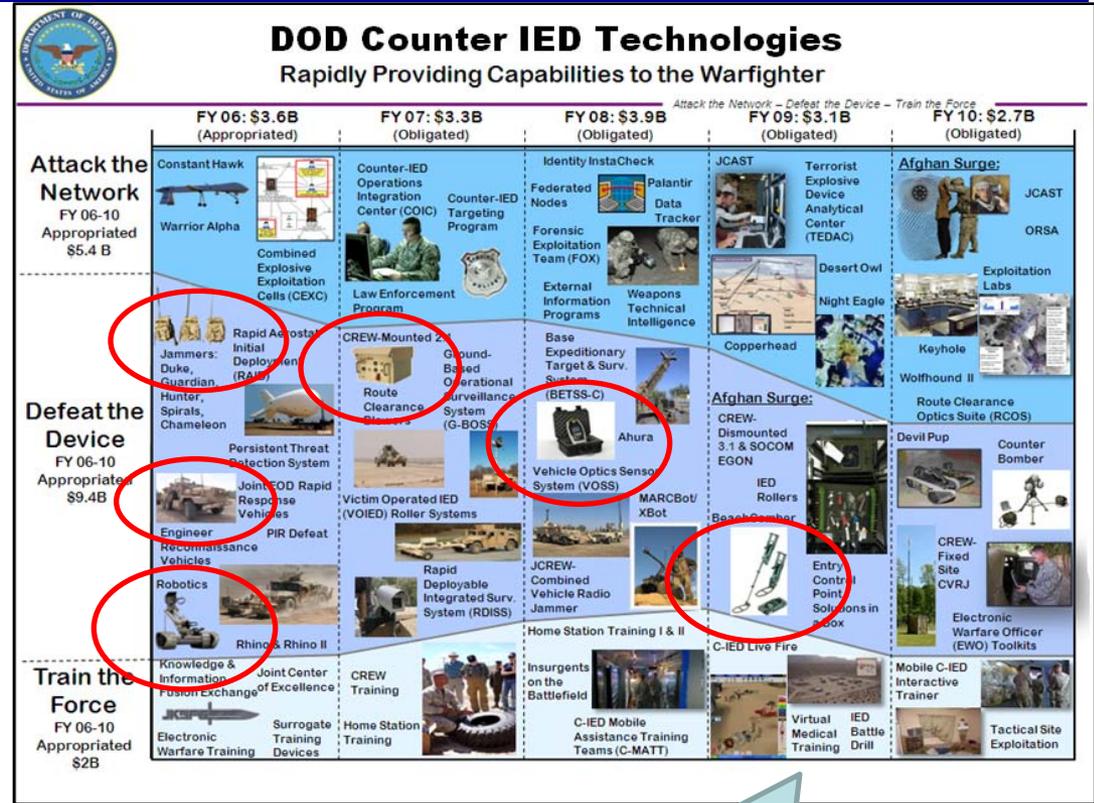


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- DoD has invested significant resources in rapidly fielding technologies to meet an ever increasing and changing IED threat.
- These technologies continue to protect our force, allow us to carry the fight to the enemy, and have significantly reduced the casualties among our EOD Members.
- It has only been through the innovation, cooperation, and diligent efforts of our industry partners that this has been able to happen.



DOD has Invested \$16.6 Billion In Counter IED Technologies

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Counter IED technologies



ECM / CREW



Advanced Robotics Platforms



Detection Technologies



EOD Rapid Response Vehicles



HME Capabilities

DoD invests taxpayer dollars in people and technology in response to a rapidly changing IED threat.

Results: Proven technology + better training = lives saved



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What is EOD?

“The committee recognizes the dedication and courageous professionalism of the Joint Service EOD force, and acknowledges the bravery associated with defeating IED’s, countering WMD’s, and eliminating explosives hazards from the battlefield....

...EOD forces are indispensable combat enablers and contribute significantly to security, stability, counterinsurgency, and counterterrorism objectives ...”

**National Defense Authorization Act for Fiscal Year 2011,
Report of the Committee on Armed Services, House of
Representatives, May 21, 2010**



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EOD is not CBRNE

“JP 1-02 Department of Defense Dictionary of Military and Associated Terms”

EOD Incident — The **suspected** or **detected** presence of **unexploded or damaged explosive ordnance which constitutes a hazard** to operations, installations, personnel, or material.

CBRNE Incident — An emergency resulting from the **deliberate or unintentional release** of nuclear, biological, radiological, or toxic or poisonous chemical materials, or the **detonation of a high-yield explosive**.



Explosive Ordnance — **All munitions containing explosives, nuclear fission or fusion materials, and biological and chemical agents**. This includes bombs and warheads; guided and ballistic missiles; artillery, mortar, rocket, and small arms ammunition; all mines, torpedoes, and depth charges; demolition charges; pyrotechnics; clusters and dispensers; cartridge and propellant actuated devices; electro-explosive devices; **clandestine and improvised explosive devices**; and **all similar or related items or components explosive in nature**.



EOD is not Explosive Clearance

Clearing operation — An operation designed to clear or neutralize all mines and obstacles from a route or area (JP 3-15).

Clearing operations are conducted to completely eliminate obstacles, whether along a route or in a specified area. Obstacles may be explosive or non-explosive. Clearing operations involving explosive obstacles are especially difficult because the detection systems employed are imperfect and neutralization systems available are only partially effective (JP 3-15).





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EOD is a Critical Enabler

Total EOD Force Structure

| Army | Navy | Air Force | USMC |
|------|------|-----------|------|
| 1875 | 1634 | 1350 | 690 |

EOD Combat
Missions
Iraq

Over **112,500** IED
Missions Conducted
to date

EOD Combat
Missions
Afghanistan

Approximately **45,750**
IED Missions resulting
in over **20,453** Level 1
Exploitation Reports

EOD Is a **critical enabler** who
despite their small size is making a
significant impact on current combat
operations



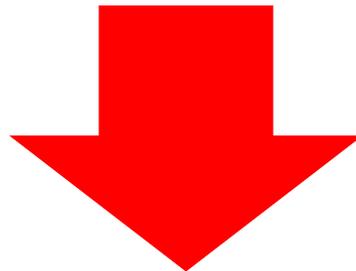


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EOD is the Critical Link to Attacking the Network

A Five Step Process

- Step 1.** Defeat the Device
- Step 2.** Collect and Exploit the Scene
- Step 3.** Process Technical Forensic Exploitation
- Step 4.** Develop Device Profiles / Identify Networks
- Step 5.** Disseminate Actionable Intelligence



Attack the Network

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EOD: The Critical Link



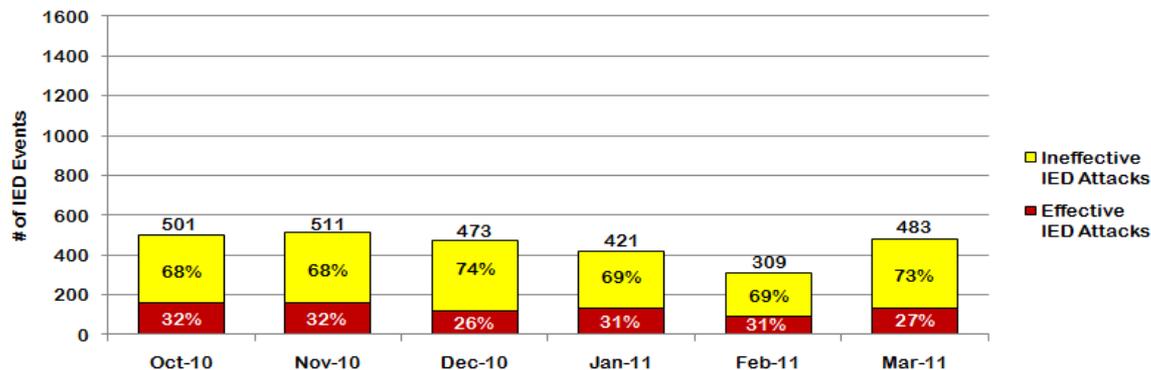
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Step 1. Defeat the Device

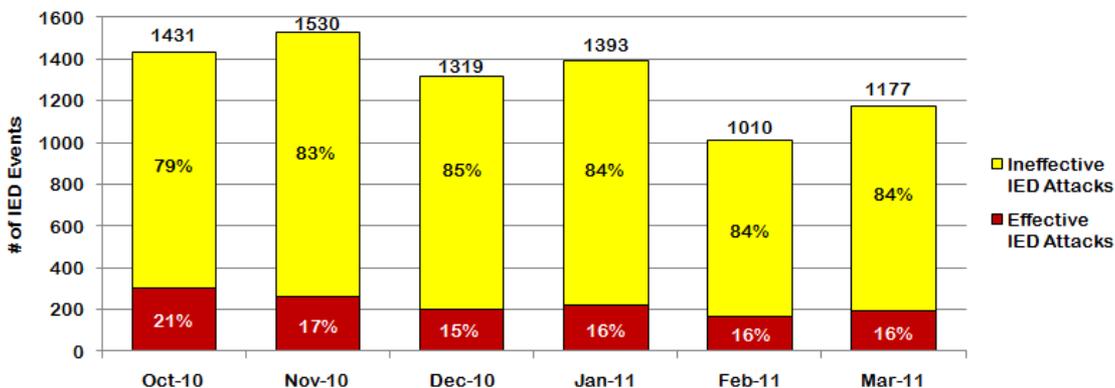


*It Begins with the
EOD Warrior*

Iraq IED Trends



Afghanistan IED Trends



EOD – Is the only authorized force trained, manned and equipped to render safe IEDs and UXOs



EOD: The Critical Link

Step 2.

Collect Information and Exploit the Scene



**In COIN, the side that learns faster and adapts more rapidly—the better learning organization—usually wins.
counterinsurgencies have been called learning competitions (FM 3-24)**



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EOD: The Critical Link

Level 1

IEDs identified, rendered safe, place, time, conditions recorded, evidence processed and photographed, tactical characterization completed

Level 2

Fingerprints, main charge identified, device type and manufacturing, electronics, and trigger analysis

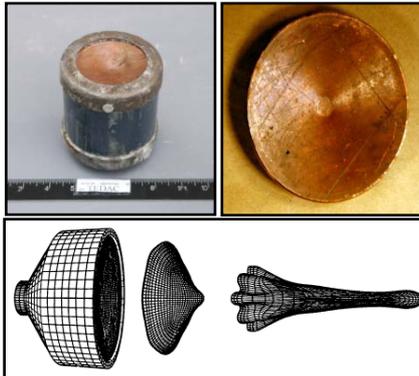
Level 3

Terrorist Explosive Device Analytical Center (TEDAC)

Fingerprints



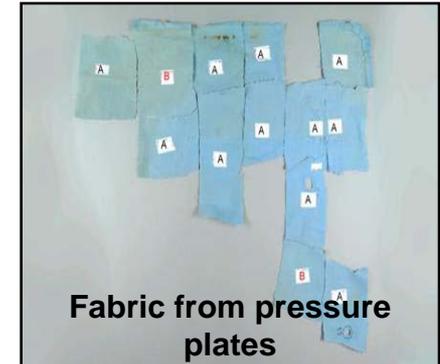
Toolmarks



DNA



Trace Evidence



Step 3
Process Technical Forensic Exploitation



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EOD: The Critical Link

Fabric Analysis

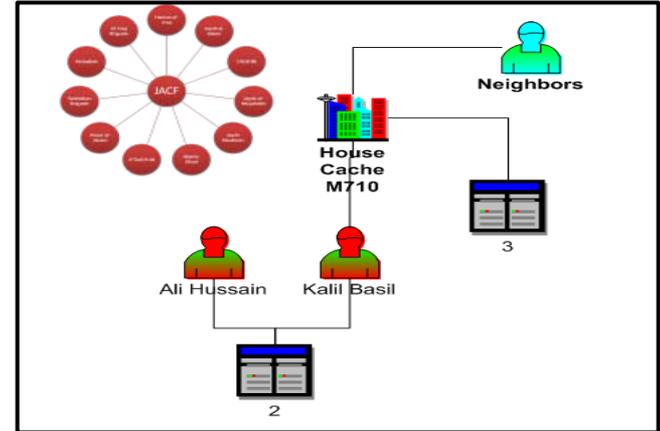


**Step 4.
Develop
Device
Profiles**

Toolmark Match



Identify Cells



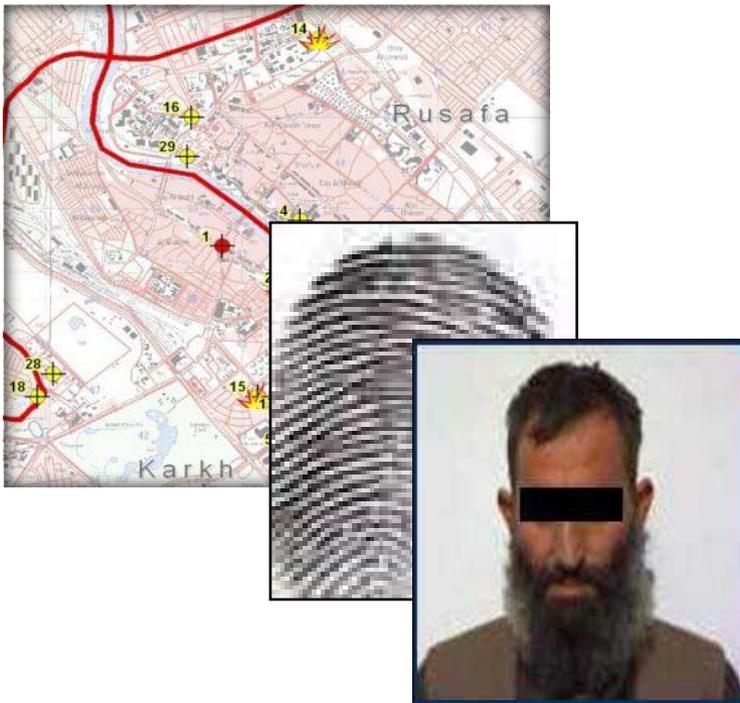
DOD in collaboration with Interagency, and Coalition partners has focused much of our investment towards these capabilities.



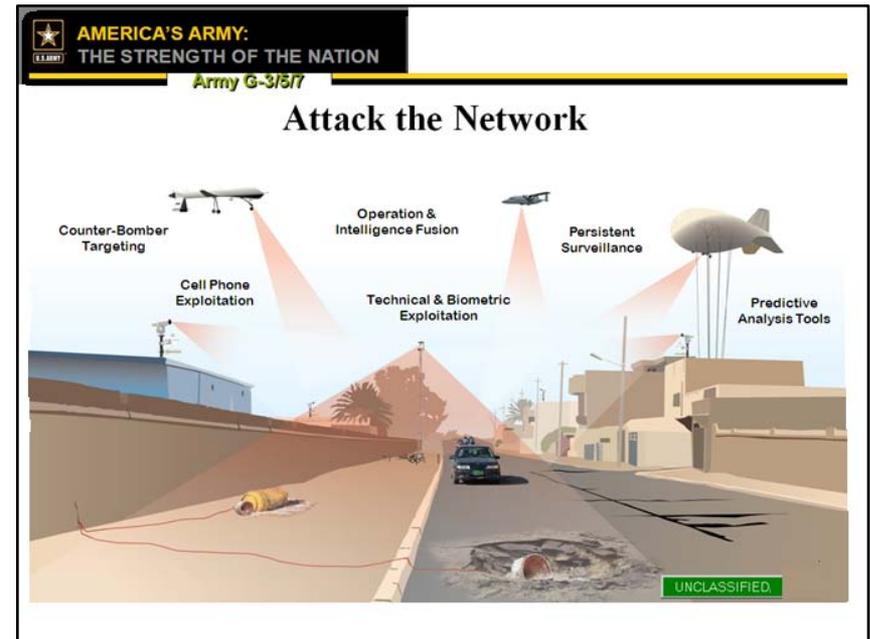
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EOD: The Critical Link

Step 5 Disseminate Actionable Intelligence



Attack the Network



“...reduce IED attacks by eliminating the most prolific IED builders... Get the network disrupted before the emplacer gets the mission...”



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EOD: The Critical Link

*It All Starts with the
EOD Warrior*



Tactical Exploitation Partners

Level 1

EOD

WIT (AUS)
WIT (GBR)
WIT (USMC)

Level 2

EOD

CEXC
JEFF/EFL
CITP
JDEC-A

Level 3

EOD

JIEDDO
ATF
FBI
TEDAC

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Results

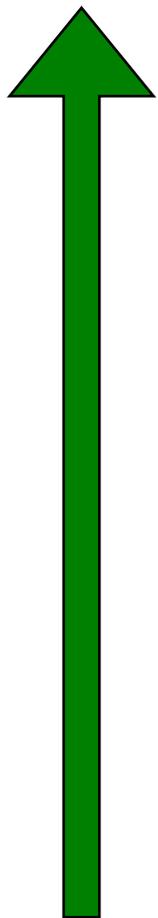
| | |
|--------|--------------------------------|
| 63,000 | Total evidence boxes submitted |
| 2,000 | DNA profiles |
| 300 | Latent print matches |
| 160 | Trace matches |
| 1,600 | Toolmark matches |
| 6,000 | IED electronics reports |
| 2,500 | Device associations |

**EOD is
integrated at
every level of
exploitation
and maneuver**

EOD Capability Development



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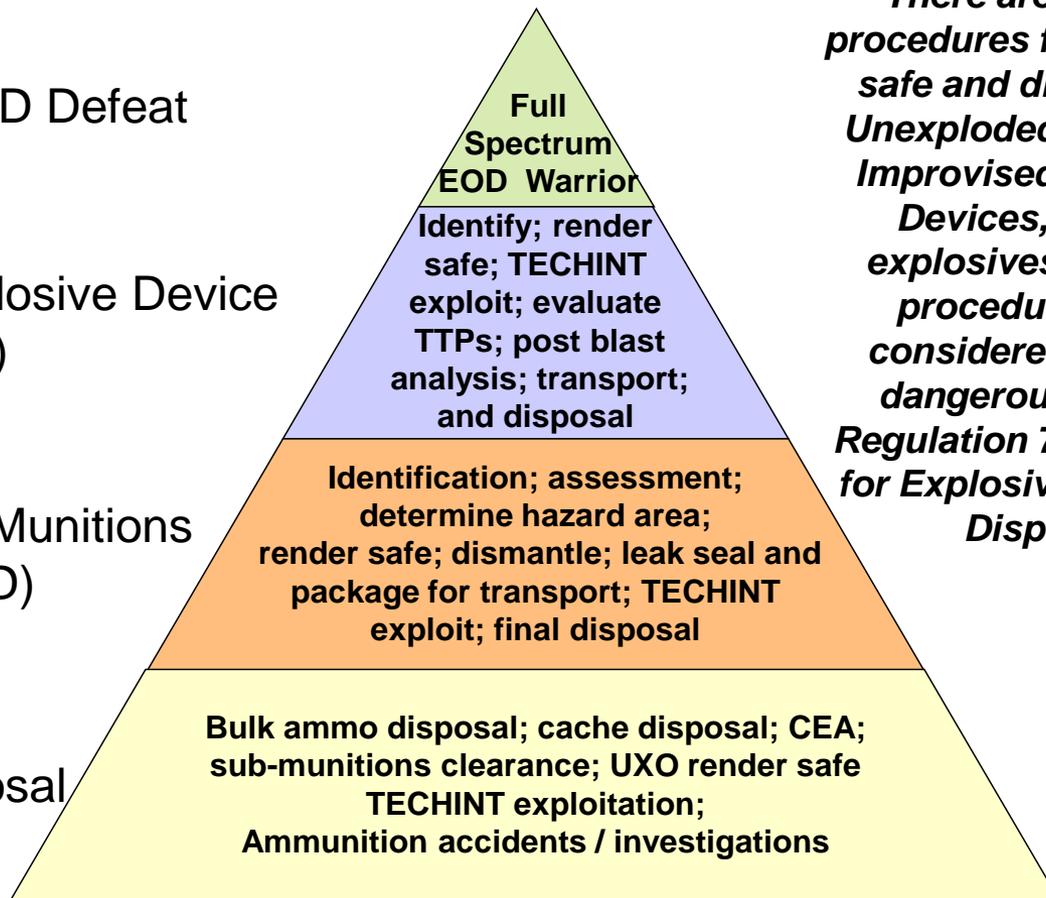


Improvised WMD Defeat

Improvised Explosive Device Disposal (IEDD)

Bio/Chem/Nuc Munitions Disposal (BCMD)

Conventional Munitions Disposal (CMD)



“There are no “safe” procedures for rendering safe and disposing of Unexploded Ordnance, Improvised Explosive Devices, or other explosives, merely a procedure that is considered the least dangerous.” (Army Regulation 75-15, Policy for Explosive Ordnance Disposal)

Increasing Technical Difficulty & Increasing Training Requirement



What makes EOD “special”

- ❑ EOD has been recognized as a critical asset in DoD and National Strategic Documents, NDAA, QDR, HSPD 19
- ❑ EOD is the only authorized force trained, manned and equipped to render safe explosive, nuclear, biological, and chemical IEDs and UXOs
- ❑ EOD is the only DOD force trained and certified to identify, render safe, and dispose of foreign ordnance
- ❑ EOD is part of a global network of EOD partners and allies NATO, Spanish, AUS, GBR, CAN, and others focused on the C-IED Fight
- ❑ EOD teams have the requisite skill and knowledge to identify WMD and WMD facilities, conduct initial exploitation, and supervise follow on specialist exploitation teams

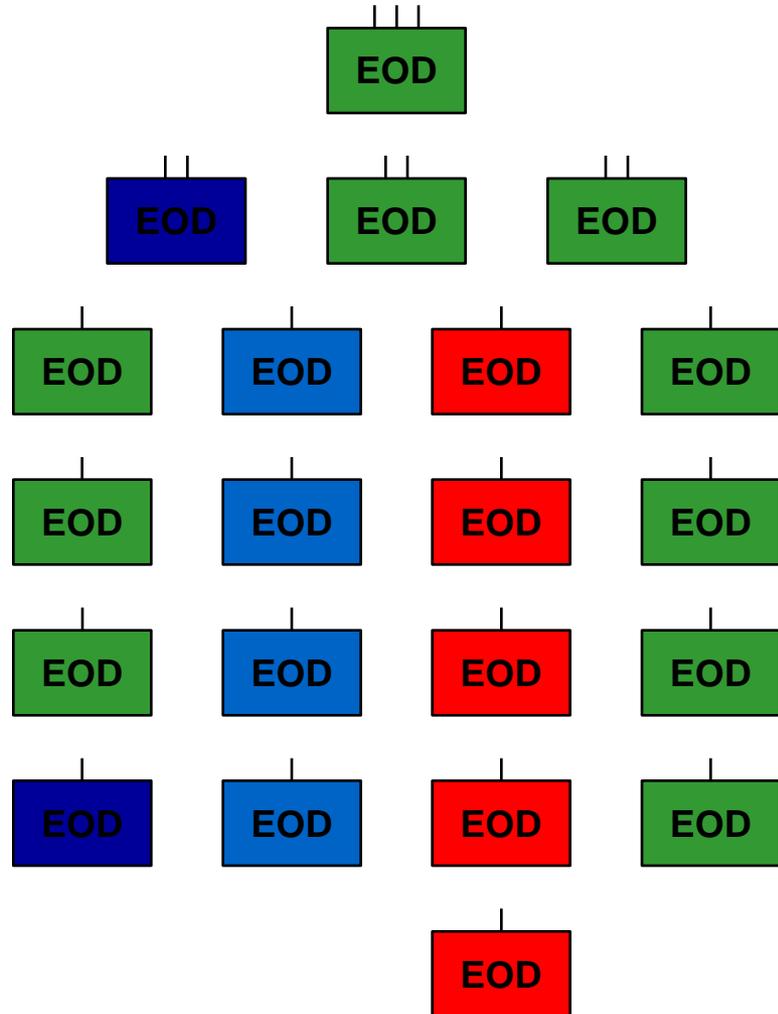
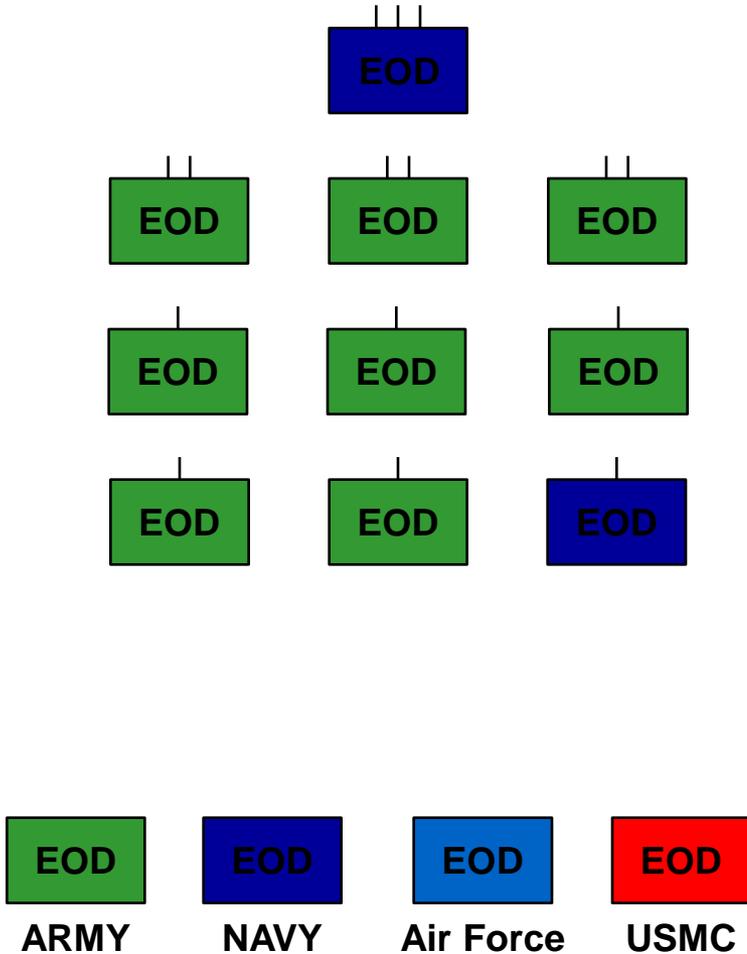


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Current Operational Deployments

Operation New Dawn

Operation Enduring Freedom





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Other Missions

- Defense Support to Civilian Authorities
- Very Important Person Protection Support
- Humanitarian Mine Action
- Training

Defense Support of Civilian Authorities



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Background

- ❑ DoD EOD has 60+ year History of Supporting Civil Authorities
- ❑ DoD EOD is the preeminent EOD Force in CONUS
- ❑ HSPD 19 Combating Terrorist Use of Explosives in CONUS calls for increased DoD / DOJ cooperation
- ❑ 2010 QDR calls for an increased C-IED capability in CONUS
- ❑ DoD Policies being updated to reflect current reality

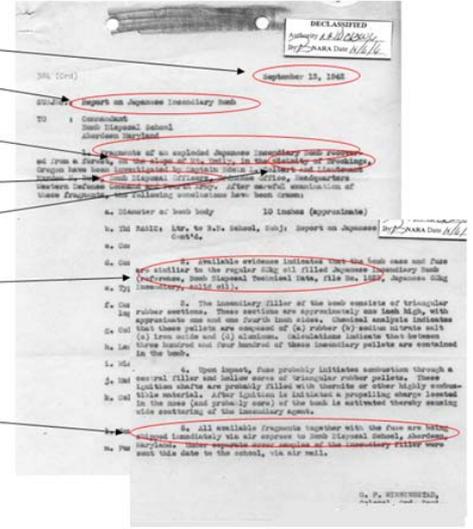


AMERICA'S ARMY:
THE STRENGTH OF THE NATION

Army G-3157

Army's First WIT Report

- "September 15, 1942"
- "Report on Japanese Incendiary Bomb"
- "Fragments of an exploded Japanese incendiary bomb.." (Post Blast Investigation)
- "Investigated by Bomb Disposal Officers.."
- "...vicinity of Brookings, Oregon.."
- Bomb case and fuse are similar to Bomb Disposal Technical Data, file No. 1523.." (reference to technical ordnance data base)
- "All available fragments, including fuse are being shipped immediately via Air Express to Bomb Disposal School, Aberdeen, Maryland."



Emerging Threat to the Homeland

Dear Iran, Wa 'Alykum as-Salam..."Similarly, the mujahidin leadership are today asking the brothers in the west specifically to attack interests in the West instead of coming here to Yemen, based on your ability, you choose the target. Your pool of targets are so large, so make sure to think of all the available options. An example of something local, easy and effective is attacking an army recruiting center, nightclub, highway, or busy shopping mall...." *Inspire, Spring 2011, Issue 5*

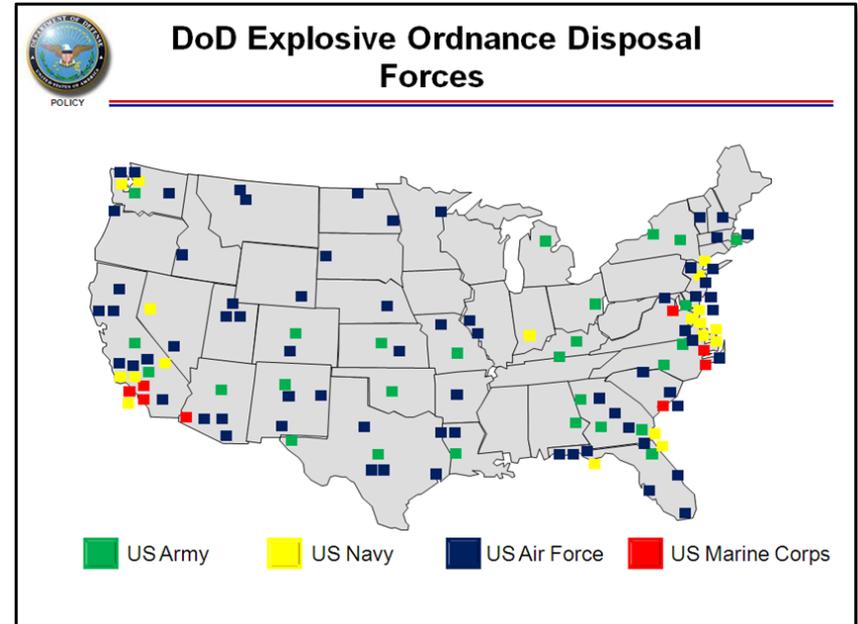


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Defense Support of Civilian Authorities

Authorities

In response to a **request for assistance** from a civil authority, under **imminently serious conditions** and if time does not permit approval from higher authority, DoD officials may provide an **immediate response** by temporarily employing the resources under their control, subject to any supplemental direction provided by higher headquarters, to **save lives, prevent human suffering, or mitigate great property damage** within the United States. DoDD 3025.18



Synopsis

- ❑ DoD always acts in a supporting role
- ❑ DoD responds when the threat exceeds other local, state, and federal assets
- ❑ DoD support primarily involves response to military munitions and explosives items
- ❑ DoD maintains the capability to provide full spectrum EOD support when requested

Legislative Environment

- ❑ The **Posse Comitatus Act** of 1878 prohibits DoD from exercising law enforcement powers within the US
- ❑ Robert T. **Stafford** Disaster Relief and Emergency Assistance Act of 1988 requires Presidential approval for DoD assistance.
- ❑ DoD Directive 3025.18 provides guidance



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VIP Protection Support

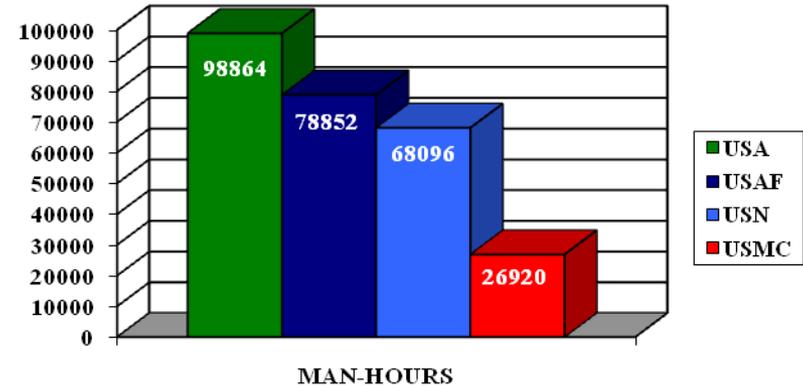
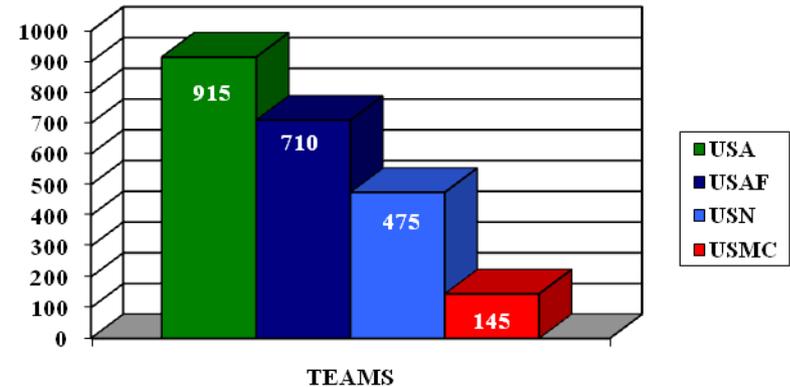
The Department of Defense provides Explosive Ordnance Disposal (EOD) support to the United States Secret Service (USSS) and Department of State (DOS) for the protection of very important persons.

DoD Directive 3025.13

EOD Vip Support Missions

| | EOD Teams | Man-hours |
|---------|-----------|-----------|
| FY 2009 | 2,590 | 383,872 |
| FY 2010 | 2,245 | 272,732 |

Fiscal Year 2010





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Humanitarian Mine Action

EOD is the **Force of Choice** for Providing Humanitarian Mine Action Assistance to Partner Nations (CJCSI 3207.01B)

EOD Supports HMA Efforts by providing the equipment and training to build capacity in mine affected countries. Training may include;

- | | |
|---|--|
| <input type="checkbox"/> Demolitions | <input type="checkbox"/> Booby traps |
| <input type="checkbox"/> Probing Techniques | <input type="checkbox"/> Demining Tools |
| <input type="checkbox"/> Minefield Marking | <input type="checkbox"/> Minefield Handoff |
| <input type="checkbox"/> Mine / UXO ID and Disposal | <input type="checkbox"/> Operation of Mine Detectors |





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EOD Operational Tempo

Deploying

Preparation For Deployment

-12 Months

-9 Months

-6 Months

-3 Months

0 Months

Individual
Skills
Training

Theater
Specific
Training

CTC
Rotational
Training

JATAC
Electronics

Home Made
Explosives

CBRN-
Sensitive
Site
Exploitation

Post
Blast
Analysis

JATAC
Tactical
EOD

Gator

Non- Deploying

- Reset from Prior Deployment
- Backstop Support
- NTC/JRTC O/C Augmentation
- Installation Range Support
- DSCA Missions
- VIP Protective Support
- Humanitarian Mine Action Missions
- EOD Team Leader Certification
- Professional Development
- Required Military Service Training
- EOD Proficiency Training
- Physical Training / Weapons Qualification



EOD Training

Naval School Explosive Ordnance Disposal 28 Weeks, 3 Days

Demo

- Explosive Safeties
- Explosive Effects
- Elec / Non Elec

Tools and Methods

- RSP Tools
- Dearmer
- Rocket Wrench
- Tape and line

Core

- Color Codes
- Ordnance ID
- AEODPS
- Recon

Ground Ordnance

- Grenades
- Rockets
- Projectiles
- Mines

Air Ordnance

- Bombs
- Guided Missiles
- Aircraft Hazards

IEDs

- Basic IEDs
- X-Ray
- Bomb Suit

Bio / Chem

- Chemical Agents
- Bio Hazards

Nukes

- Nuclear Weapons Systems

**There are apx.
1161 students
currently on board
at NAVSCHEOD!**

WMD

- Safeties
- Terminology
- Detection
- PPE

**The Average
Student takes 246
calendar days to
graduate!**



EOD Training

Advanced Improvised Explosive Device Disposal 4 Weeks

Concept

To provide Advanced Improvised Explosive Device (AIED) TTPs to EOD Technicians and personnel from other key federal agencies. Diagnose, disable, contain and dispose of sophisticated IEDs in varied environments to include battlefield operations, peacekeeping operations and homeland defense.

Course Layout

- **Module A (2 weeks)**
 - ✓ Electronic Countermeasures
 - ✓ Robotic Operations
 - ✓ Electronics in IED/WMD design and diagnostics
 - ✓ Home Made Explosives
 - ✓ Chemical, Biological, Radiological, Nuclear (CBRN) Detectors
- **Module B (2 weeks)**
 - ✓ Scenario based, EOD team operations FTX





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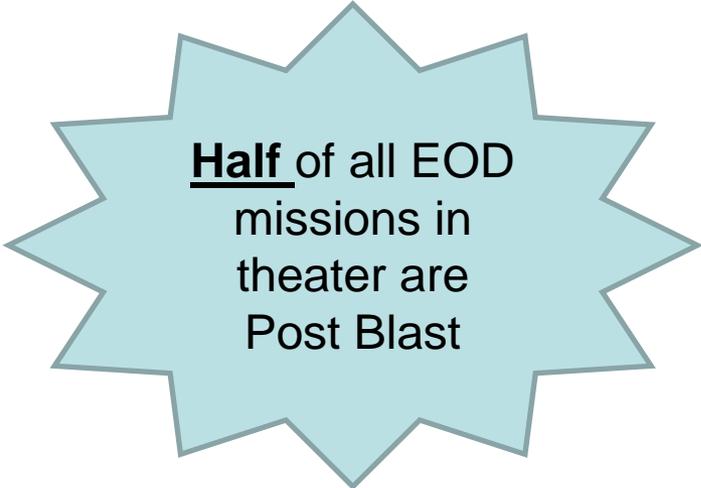
EOD Training

Tactical Post Blast Course 1 Week Concept

Formalized training on proper TTP's for post blast forensic intelligence gathering and tactical site exploitation operations conducted in non-permissive environments. Students learn their role within the Weapons Technical Intelligence process in order to provide supported maneuver commanders with critical information requirements and actionable intelligence.

Course Layout

- **EOD Resource Center Prerequisite**
 - ✓ Weapons Technical Intelligence (WTI Lexicon),
 - ✓ Crater Analysis
- **Module A (2 days in classroom)**
 - ✓ Current IEDD and Post Blast Trends
 - ✓ IED Electronic Components
- **Module B (Practical Exercise)**
 - ✓ High tempo to replicate the theater of operations
 - ✓ 15 actual blast site scenarios modeled after current enemy TTPs

A light blue starburst graphic with a dark blue outline, containing text.

Half of all EOD missions in theater are Post Blast



EOD Training

Global Anti-Terrorism Operational Readiness (GATOR) 2 Weeks

Concept

A pre-deployment training program for US Joint Service and International EOD units to hone technical render safe and other critical EOD operator skills against explosive ordnance and IED threats currently faced in combat theaters. Utilizes current threat IED construction and employment techniques;

Course Layout

- **Module A (1 week)**
 - ✓ Theater specific intelligence update focuses on IED and other explosive ordnance threats
 - ✓ New technology, tools and equipment
 - ✓ Electronic Warfare equipment employment theory
- **Module B (1 week)**
 - ✓ Scenario based, EOD team operations FTX
 - ✓ 96 hrs of night operations





EOD Training

Joint Center of Excellence (JCOE) Counter IED Training Concept

The Joint Center of Excellence (JCOE) is the execution arm of JIEDDO's C-IED training program. JCOE is located at Fort Irwin, Ca. and has been operational since April 2006. Together with the four service-specific centers of excellence (COEs), JCOE provides deploying forces with training on rapidly fielded C-IED equipment and capabilities.

Specific Courses

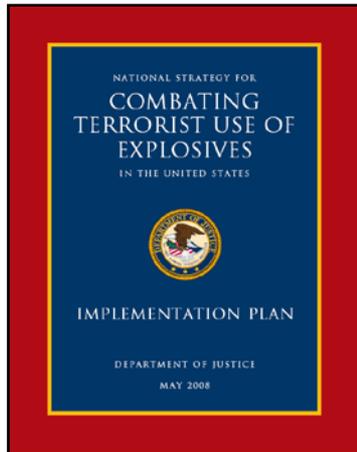
- **CBRN Sensitive Site Exploitation**
- **Tactical EOD Course**
- **Training to Identify and Report HME**
- **IED Electronics**
- **Tactical Post Blast Analysis**
- **C-IED Mobile Assistance Training Teams**



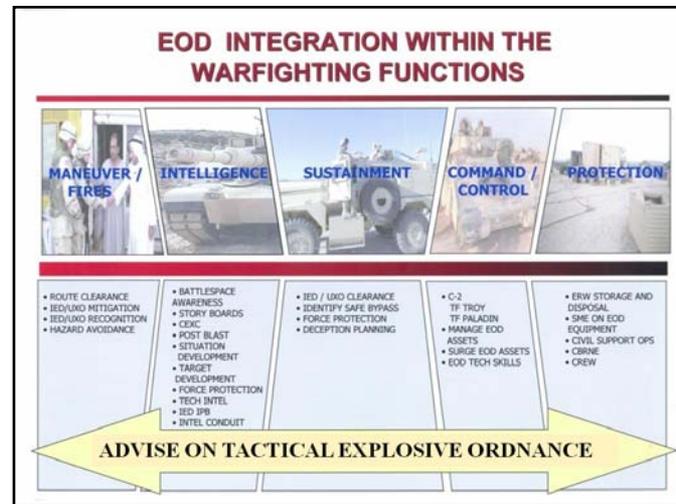


EOD Integration

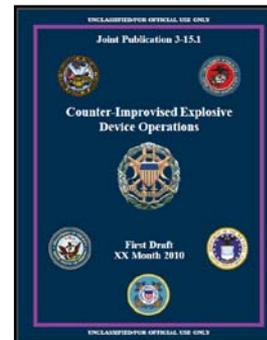
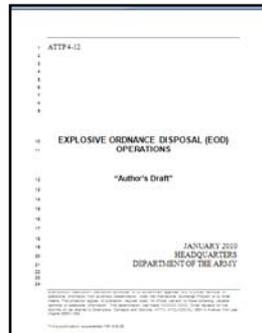
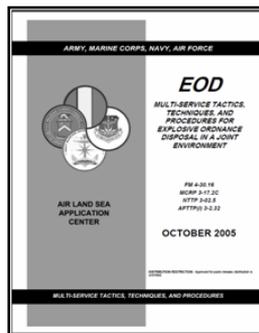
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Integration Into National Strategic Documents



Integration Into Combatant Commander Processes and Requirements



Integration Into DoD Doctrine and Joint Publications



EOD Challenges

- ❑ Maintaining EOD capabilities and force structure in an environment of fiscal reviews and efficiencies
- ❑ Capturing best practices and lessons learned and integrating those into the individual services institutional processes
- ❑ Recruiting & maintaining quality personal
- ❑ Transitioning from a continual deployment cycle to a home based training cycle



What We Still Need

- ❑ Greater ability to detect and neutralize improvised or homemade explosives (HME)
- ❑ Next generation robotics, bomb suits, and radiographic systems
- ❑ Equipment and procedures to fight the IED fight in the Homeland, communications, vehicles, exploitation techniques, ECM, kinetic tools, etc...
- ❑ Standoff explosives detection capabilities
- ❑ Lightweight tools and explosives for dismounted operations



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Summary

- ❑ EOD Warriors are better trained and equipped now than they have ever been in the past, and are honed by nearly 10 years of continuous combat operations
- ❑ EOD Warriors are integrated at all levels of combat operations and are a critical enabler to countering IED's to permit Attacking the Network and supporting C-IED Targeting
- ❑ When not deployed EOD Warriors conduct a myriad of activities including DSCA, VIPS, HMA, installation support, and training missions, they do not sit idle waiting on the next deployment
- ❑ We have made significant progress, but still have a ways to go in improving equipment and training, and integrating lessons learned
- ❑ EOD has performed superbly in an extremely hazardous and high operational tempo environment, and for that has paid a price; we must not forget the significant sacrifices made by our entire EOD Family
- ❑ We are the OSD Advocate for all services Explosive Ordnance Disposal programs and are always looking for new and different ways to leverage the Office of the Secretary of Defense to advance the EOD cause



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The Numbers

- ❑ Since 1942 the number of EOD Warriors added, or will be added to the EOD Memorial - 269
- ❑ From Jun 1942-Sep 2001 (59 yrs) there were 177 names added to the Wall.
- ❑ From Sep 2001- Today (10 Yrs) we have added or will add an additional 92 names
- ❑ 34% of all EOD losses have occurred since Sep 2001
- ❑ Majority killed by Improvised Explosive Devices
- ❑ Since the Inaugural 2010 Global EOD Conference there have been 20 EOD Warriors killed and 94 EOD Warriors wounded in Iraq / Afghanistan



EOD Heroes

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SSgt Adam L. Perkins
26 April 1983 – 17 May 2010



SSG Shane S. Barnard
13 Dec 1971 – 19 May 2010



SSgt Jordan B. Emrick
19 Dec 1983 – 5 Nov 2010



SRA Michael J. Buras
28 July 1987 – 21 Sep 2010



SPC Wade A. Slack
22 Mar 1989– 6 May 2010



SSG Derek J. Farley
21 May 1986 – 17 Aug 2010



MSgt Daniel L. Fedder
31 July 1976 – 27 Aug 2010



GySgt Floyd E. Holley
16 Aug 1974 – 29 Aug 2010



We Remember



SGT Jason T. Smith
22 Dec 1981– 19 Nov 2010



SSgt Joshua J. Cullins
25 March 1982 – 19 Oct 2010



CPT Jason T. McMahon
24 Oct 1974 – 5 Sep 2010



GySgt Justin J. Schmalstieg
16 May 1982 – 15 Dec 2010



SRA Daniel Johnson
20 June 1987– 5 Oct 2010



SSG Matthew J. West
20 May 1974 – 30 Aug 2010



GySgt Christopher Eastman
21 Sep 1981 – 18 July 2010



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Questions?



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703-614-5824

Lets keep them off the wall !!!