Interagency IED Defeat Research and Development

Global EOD Conference and Exhibition
May 4-5, 2011
Fort Walton Beach, FL
CTTTSO Organizational Objectives

• Provide interagency forum to coordinate R&D requirements for combating terrorism
• Sponsor interagency advanced technology development
• Promulgate technology information transfer
• Guide basic and applied research
• Influence policy development
CTTTSO Organization

- Special Operations/Low-Intensity Conflict & Interdependent Capabilities
  - Combating Terrorism Technical Support Office
    - Explosive Ordnance Disposal/Low-Intensity Conflict
    - Technical Support Working Group
    - Irregular Warfare Support
INTERNATIONAL PROGRAMS
## Budget Activity Definitions

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
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<tr>
<td><strong>Applied Research (6.2)</strong></td>
<td>Systematic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met.</td>
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<td>NAVEODTECHDIV</td>
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<td><strong>Advanced Technology Development (6.3)</strong></td>
<td>Includes all efforts that have moved into the development and integration of hardware for field experiments and tests.</td>
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<td>EOD/LIC</td>
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<td>DTRA</td>
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<td>JIEDDO</td>
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<td>OGAs</td>
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<td><strong>Advanced Component Development and Prototypes (6.4)</strong></td>
<td>Includes all efforts necessary to evaluate integrated technologies in as realistic an operating environment as possible to assess the performance or cost reduction potential of advanced technology.</td>
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Technology Readiness Levels

- **TRL 9**: Actual technology system qualified through successful mission operations.
- **TRL 8**: Actual technology system completed and qualified through test and demonstration.
- **TRL 7**: Technology systems prototype demonstration in an operational environment.
- **TRL 6**: Technology system/subsystem model or prototype demonstration in a relevant environment.
- **TRL 5**: Technology component and/or basic technology subsystem validation in a relevant environment.
- **TRL 4**: Technology component and/or basic technology subsystem validation in a laboratory environment.
- **TRL 3**: Analytical and experimental critical function and/or characteristic proof-of-concept.
- **TRL 2**: Technology concept and/or application formulated.
- **TRL 1**: Basic principles observed are reported.
“Enhance domestic counter-IED capabilities. To better prepare the Department to support civil authorities seeking to counter potential threats from domestic improvised explosive devices (IEDs), DoD will assist civil authorities with counter-IED tactics, techniques, and procedures (TTPs) and capabilities developed in recent operations.”

- QDR 2010

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<tr>
<th>EOD/LIC</th>
<th>USERS</th>
<th>IDD</th>
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<tr>
<td>• Provide <strong>Joint Service EOD and Special Operations Forces</strong> with advanced technologies and mission-focused solutions</td>
<td>JSEOD, SOCOM, NECC, MARSOC, AFSOC, USASFC</td>
<td>• Identify, prioritize, and execute research and development projects that satisfy mission critical needs</td>
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<tr>
<td>• Address current and emerging threats presented by unconventional and asymmetric warfare</td>
<td>NBSCAB, DoD, DoS, USSS, OGAs</td>
<td>• Fill capability gaps and address <strong>Interagency requirements</strong> for advance technologies to safely and effectively defeat improvised terrorist devices</td>
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CTTTSO Business Cycle

- MTAB
- NBSCAB
Domestic C-IED Challenges

- C-IED Network Attack and Analysis
- Detection of Homemade Explosives
- Standoff Rapid Detection of Person Borne IEDs
- Vehicle-borne IED Detection
- IED Access and Defeat
- Radio Controlled IED Countermeasures
- IED Assessment and Diagnostics
- Waterborne IED Detect and Defeat Systems
- IED Warnings
- IED Threat Characterization and Signatures
Global EOD C-IED Challenges

- Detection and Identification of Explosives, especially HME/IE
- Desensitization of HME/IE
- Standoff Detection of IED Components and Circuitry
- IED Assessment and Diagnostics
- General IED Defeat Tools
- Detection and Defeat of Hidden and Buried IEDs
A New Approach

1. Fly-Away Support Teams
   – Can assistance in defining the requirement
   – Knows existing technologies
   – Know what is technologically possible

2. Any-Time, Any-Where Requirements
   – Sometimes crazy ideas are the best solution
   – Some of the best ideas are drawn on the back of a napkin
   – Paperwork shouldn’t stop you from making a difference

3. Who knows better what you need than you do? And if you aren’t going to tell us what you need, who will?
My Contact Information

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Questions?