S&T Stakeholders Conference

Response & Defeat Programs

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Mission, Goals & Objectives

• Identify, prioritize, and execute RDT&E projects that satisfy interdepartmental requirements to more safely and effectively render safe terrorist devices.

• Emphasis on technologies to access, diagnose, and defeat
  – improvised explosive devices (IEDs)
  – person-borne improvised explosive devices (PBIEDs)
  – improvised chemical, biological, radiological, and nuclear (CBRN) devices
  – vehicle-borne improvised explosive devices (VBIEDs)

• Deliver advanced tools and technologies to increase the operational capabilities of the federal, state, and local bomb squads to defeat and mitigate terrorist devices.
**Approach**

Addressing First Responder need to rapidly and accurately identify all components of a suspect explosive device from a standoff distance, verify a suspect device as an actual threat, and to disarm and render the device harmless.

**Access & Diagnostics:** Develop technologies to access and analyze an improvised terrorist device to facilitate timely response and prosecution. Once a bomb has been detected, the bomb squad will have to gain access to it and conduct diagnostic analysis of the bomb in order to formulate a render safe procedure.

**Render Safe/Defeat:** Develop technologies that will increase standoff capabilities, reduce collateral damage, and provide precise disruption and disablement capabilities and techniques. Emphasis is placed on developing low-cost solutions that are readily available to the bomb squad community.
Major Program Areas

- Electronic Countermeasures
- Robotics
- Directed Energy
- RSP/Diagnostics
- Post-Blast (Forensics/Inerting)
- Bomb Components
- Body Armor
- Counter Countermeasures
Sub-IPT

C-IED CAPSTONE IPT

Mark Sullivan – Director U.S. Secret Service
Charlie Payne, Office of Bombing Prevention, Chief
Jim Tuttle – Explosives Division Head, S&T
Users – Screeners, Border Patrol & ICE Agents,
First responders

DHS USSS – Lead
Customs and Border Protection
TSA
DHS OBP

DHS OBP – Lead
NBSCAB
Fairfax County Sheriffs Office
Seattle PD
Michigan PD
Los Angeles PD
South Carolina Law Enforcement Division
Maryland State Fire Marshal

Detection Sub-IPT

Respond/Defeat Sub-IPT

Other Component/Agency Participation
Customs and Border Protection
U.S. Coast Guard
Office of Infrastructure Protection
Leveraged efforts from DOD, TSWG and DOJ
Response Sequence

Notification
- Communications interoperability
- Information-sharing

Reconnaissance
- UAV
  - Long-range cameras
  - Robotics (autonomous)
- Sensors

Access and Diagnostics
- Access techniques (non-explosive methods)
- Fiberscopes
- Portable digital imaging systems
- Single-sided imaging systems
Response Sequence (continued)

Defeat
- Neutralization charges (do not use water as the force medium)
- Neutralization techniques (non-explosive methods)

Investigations
- Portable laboratory forensics capability

Storage/Disposal
- Portable magazines
- Disposal methods (large quantities of explosives)
On-Going Efforts

- Non-Explosive IED Defeat Tool
- Characterization of Disruption Tools
- Critical Incident Response Technology Seminars (CIRTS)
- Information Sharing Technologies
- Compressed Air Cannon (New FY08)
New Needs

Basic Research & Prototypes

• Autonomous Response (Robotics)
• Non-explosive render-safe tools
• Protective Materials/Lightweight bomb suits (provide thermal, blast, and fragmentation protection)
• Means to dispose of large quantities of explosives
Long Range Broad Agency Announcement

Can be found on FEDBIZOPS

General Information

Notice Type:
Modification/Amendment

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December 12, 2007

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December 31, 2008

Topical Areas of strategic interest include:
Explosives countermeasures, including the detection, mitigation, and response to explosive threats including manpads, home made explosives, improvised explosive devices, suicide bombers and vehicle borne improvised explosive devices.