S&T Stakeholders Conference

S&T Thrust Area Bombs—The Way Ahead

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PARTNERING FOR A SAFER NATION
Future Vision

**Mission**: We are focused on developing a counter-IED basic research effort, in addition to the transition efforts being undertaken with our customers through the Capstone IPT process.

To facilitate we are:
- Developing a high-level technology roadmap
  - Supplemented by more detailed roadmaps being developed at the division level
- Collaborating with the Centers of Excellence, National Labs, Federal, state and local government partners, and industry partners
- Working with our partners is key to succeeding in our mission
DHS S&T has established a counter-IED program to leverage existing multi-agency research and investments to deter, predict, detect, defeat and mitigate the impact of IED attacks.

### DHS S&T Counter-IED Program

**Terrorist IED Attack Timeline**

- **INTENT**
- **INITIAL PLANNING**
- **OBTAIN OPERATIONAL RESOURCES**
- **CONDUCT OPERATIONS**
- **ATTACK**
- **IMMEDIATE EFFECTS**
- **LONG-TERM EFFECTS**

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<td>• Bomb Assessment/ Diagnostics</td>
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<td>• Group Characteristics</td>
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<td>• Type of Explosive</td>
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<td>• Pre-incident Rhetoric</td>
<td>• Video Tracking</td>
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<td>• Pre-incident Behaviors</td>
<td>• Video Identification &amp; Alert</td>
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<td>• Electronic Countermeasures (IR/RF Jamming)</td>
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<td>• Bomb Components</td>
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**Cross Cutting:**

- Standards; Outreach; Technology Demonstration/ System Integration
- Intel Data Sharing (FBI, CIA, DIA); Technology resource & Test sharing (DoJ, DoD, DoE)
Explosives IPTs

Mission Space
- Checkpoint including Carried Baggage (People / Materials)
- Checked Baggage
- Air Cargo
- HME Characterization
- Conveyance Protection (Airports, Mass Transit/ Maritime)
- Access Control & Perimeter Security

Explosives Prevention
- TSA/USSS

Transportation Security
- Acquisition
- Explosives
- TSA
- End-User

Acquisition Explosives
- TSA/USSS
- Explosives

CIED
- USSS/OBP
- EXD LEAD (w/ support from IG & HF)
- Acquisition
- Explosives
- End-User

Mission Space
- Deter – Motivation and intent based
- Predict – Risk Analysis and predictive screening
- Detect – Person Borne and Vehicle Borne
- Respond / Defeat – Post Detection Resolution
- Mitigate – Blast Protection of people and infrastructure

Through the IPT process technology gaps are prioritized and develop programs to fill those gaps
What Needs Attention

DHS Customers

Requirements

R&D Partners
Key Takeaways

• Focus on both sides of the requirements process
  • Getting requirements from our DHS partners
  • Getting requirements to those doing research and development

• Develop both performance and testing standards

• Examples of government processes to develop standards include:
  • Special Operations Command (SOCOM) experimental testing
    – Conducting experimental exercises to build requirements and develop standards
  • EU process
    – Performance standards development (what the technology should do)
    – Independent testing for industry technology advancements
    – Scenario-based testing

• Work to streamline ways for non-government groups to work with S&T, including Centers of Excellence and National Labs