S&T Stakeholders Conference

Meeting the Nation’s Transportation Challenges

Jim Tuttle
Explosives Division Head
Science and Technology Directorate

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PARTNERING FOR A SAFER NATION
Transportation Security
High Priority Technology Needs

• Technologies to screen people for explosives and weapons at fixed aviation and mass-transit checkpoints—In particular, to allow high detection rates with minimal disruption to passenger flow

• Systems solution for explosives detection in checked and carried bags—In particular, automated systems to screen for conventional explosives, liquids, weapons, and homemade explosives

• Capability to detect homemade or novel explosives—In particular, characterizing potential homemade explosives for use in developing detection systems for screening at checkpoints

• Optimized canine explosives detection capability—In particular, techniques, training tools and methods to improve performance for all transportation venues

• Technologies for screening air cargo for explosives and explosive devices—In particular, technologies for screening break-bulk, palletized, and containerized air
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The Present: Checkpoint Screening
Explosives Detection: Current Approach
Checkpoint: Carry-On Bag Screening
Clutter Carry-On Bag
Checkpoint: Recent Delivery

- Trace Portals
- Hardened Explosive Trace Detection Systems
- Imaging Technology and Algorithms
- Checkpoint Explosive Detection Systems
- Trace Contamination Studies: Turban, Shoes, Hands, Suicide Bombers
The Next Step:
The Integrated Checkpoint
Next Generation Checkpoint Prototypes

- Metal Detection
- Facial Recognition
- Whole Body Imager
- Trace

Screening People

Screening Items
The Future: Standoff Detection
Integrated Screening Systems
The Future of Screening