Perspectives on:
Screening of personnel and divested items at the checkpoint

What was heard?
What was not heard?
What's next?

Harry Martz, Carl Crawford

ADSA12, May 13, 2015

LLNL-PRES-671537

What Did We Hear?

- APEX checkpoint program (Industry Day June15)
  https://www.fbo.gov/index?s=opportunity&mode=form&id=724e08edebe2284ad069274c49d4380b&tab=core&_cview=0

- EU AT screening up to 500 bags/hr. (not optimized for all three categories)

- Demonstrated integrated checkpoints

- Risk based screening (under-screening) is essential to security

- BDO is more important in spite of contrarians

What Did We Hear? continued

- Vendor neutral airports and 3rd parties desired
- Open platform checkpoint test bed available
- We cannot afford perfect security
  - What is adequate/acceptable by politicians/public?
- Under-screening is better use of limited security systems than over-screening
- CT at the checkpoint
  - Stationary for reduced footprint
- NQR and NMR electronic and bottle screening

What Did We Hear? continued

- War gaming
  - It is acceptable to fail in a training environment
  - It is NOT acceptable to fail in an operational environment.
  - Assumptions are the mother of all screw ups.
  - Bring in an intelligent adversary for training.
- Simulations are useful
- Standoff trace detection
- Controlled Cognitive Engagement behavioral screening is effective, efficient, equal and enjoyable

Additional Audience Comments on "What We Heard"

- How will 3rd parties be implemented? What is interaction amongst TSA, 3rd parties, vendors?
- Incentive is needed to raise the bar after passing CERT to improve performance
- Secretary of DHS said that security hardware/ technology is a commodity
- Is there a framework for API?
- TSA needs to better engage stakeholders
- Portable X-ray radiography, backscatter, MMW, etc.
- Game theory as applied to TSOs

What We Did Not Hear?

- RBS metrics and how will they be measured/used
- How algorithms will adapt in real time
  - How will they be certified
  - How will they be determined to maintain Pd in field
- Video tracking people. Tag and track
- Integrated perspective on Level 1, 2, 3 etc.
- THz the great hope. Is there an update?
- Mass transit? Federal buildings, non aviation other applications.
- Protecting the checkpoint, airports, etc.
- System of systems PD, PFA for the entire checkpoint, airport, etc.
- Talk about the threats, what we are trying to look for, etc.
- Human factors it touches upon all aspects of screening, etc. T&E, etc.
- We need to hear from the airlines, TSOs, etc.
- Quantifying deterrence and displacement

What Can Be Done To Solve the Checkpoint Problem?

- Risk based screening (under-screening)
- Better CONOPS
- System and data integration
- Standards
  - Systems interfacing
  - Data integration
  - Testing in lab and field
- Better MMW, NMR, NQR and X-ray hardware and reconstruction software
- New/orthogonal technologies

What Can Be Done To Solve the Checkpoint Problem? continued

- Grand challenges/task orders
  - Reconstruction and ATR for sparse view CT, MMW and X-ray Backscatter
  - Integrated/fused systems
  - Speeding up CERT/QUAL testing
    - More statistical
    - Human in the loop
  - Simulated system, bag and people data sets
  - Delayering to extract more information from projections
  - Quantifying deterrence and displacement

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Checkpoint Industry Day
Solicitation Number: HSHQDC-15-00078
https://www.fbo.gov/index?s=opportunity&mode=form&id=724e08edebe2284ad069274c49d4380b&tab=core&_cview=0

Event: DHS S&T EXD is hosting a Checkpoint Industry day to discuss with stakeholders in an open forum the specific intentions of DHS S&T and TSA regarding the newly authorized Apex Checkpoint Program.

Sponsorship: Department of Homeland Security, Science & Technology Directorate, Homeland Security Advanced Research Programs Agency, Explosives Division (DHS, S&T, HSARPA, EXD)

Date/Time: June 15, 2015, 8:30 a.m. to 4:00 p.m., Registration begins at 7:30 a.m.

Where: Wilbur J. Cohen Building, 330 Independence Avenue SW, Washington, DC 20202

Deadlines:
- **May 18, 2015** Registration Closes for Foreign National Participants
- **May 26, 2015** Last Day to switch Foreign National Participants
- **May 26, 2015** Registration Closes for US Citizens