Agenda

1. TSCAP – What is it?
2. Goals of TSCAP
3. Timeline
4. Current Status
TSCAP: What is it?

Security capabilities have historically been developed, acquired and deployed discretely, usually in response to recent events or information regarding emerging threats/risks.

Transportation Security Capability Analysis Process (TSCAP)

TSCAP will be a **structured, repeatable, and transparent** process designed to strengthen TSA’s ability to measure, analyze, and improve existing and nascent security capabilities as part of a holistic security system architecture.
TSCAP: What is it?

TSCAP will:

- Identify & prioritize security capabilities
- Determine the best mix and type of security capabilities based on risk
- Ensure new capabilities enhance security without excessive cost, impeding operational efficiency, and decreasing passenger satisfaction or industry vitality
TSCAP: What is it?

Define

Identify and prioritize the threats TSA needs to guard against.

Measure

Evaluate individual capabilities’ performance in addressing threats.

Analyze

Assess how well security capabilities work in combination with one another while taking into account broader performance criteria.

Improve

Enhance security system architecture by changing an existing security capability, modifying the mix of existing capabilities or proposing a new acquisition requirement.

Govern (Control)

Ensure TSCAP is working effectively throughout TSA

Better Requirements
## Timeline

<table>
<thead>
<tr>
<th>Month</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sep 2012</td>
<td>TSCAP Concept Developed</td>
</tr>
<tr>
<td>Oct 2012</td>
<td>Request for Information (RFI) Issued in FedBizOpps</td>
</tr>
<tr>
<td>Nov 2012</td>
<td>RFI deadline (20 respondents)</td>
</tr>
<tr>
<td>Jan 2013</td>
<td>TSA TSCAP RFI Panel (OSC, OSO, OA, OIA, RBS, OSPIE)</td>
</tr>
<tr>
<td>Feb 2013</td>
<td>Performance Work Statement (PWS) developed</td>
</tr>
<tr>
<td>Mar 2013</td>
<td>RFI reissued to small businesses under TABSS (DHS-wide contract vehicle)</td>
</tr>
<tr>
<td></td>
<td>TSA hosted interviews with interested TABSS small businesses</td>
</tr>
<tr>
<td></td>
<td>TSCAP approved for TABSS Domain 1, Tracks 2 + 3 (small businesses only)</td>
</tr>
<tr>
<td>May 2013</td>
<td>Issued RFP</td>
</tr>
<tr>
<td>Jun 2013</td>
<td>Source Selection Phase</td>
</tr>
<tr>
<td>Jul 2013</td>
<td>Award TSCAP Contract</td>
</tr>
</tbody>
</table>
Current Status

What will it look like?

TBD
Behavior Detection and Analysis

Darryl Smith
Acting Division Director

Transportation Security Administration
Program Background

• The Behavior Detection & Analysis (BDA) Branch delivers effective behavior capabilities that engender trust, confidence, and support from the American public by discovering unknown, potentially high-risk persons and routing them to high-risk screening.

• The Branch performs the following functions:
  • Conducts/participates in systematic behavior detection research and analysis
  • Provides behavior detection and analysis subject matter expertise to all TSA elements and others as requested
  • Develops metrics and analyzes performance effectiveness for Behavior Detection Officers (BDOs)
  • Provides outreach / liaison to TSA, DHS, academia, and other government agencies and stakeholders
Program Background (con’t.)

• Functions (con’t):

  • Provides input into behavior detection capability (e.g. SPOT) policy decisions and documents based on foundational research efforts

  • Tests behavior detection capabilities within Risk Based Security initiatives and determines appropriate metrics for effectiveness measures

  • Provides consultation and input into BDO training design/requirements

  • Evaluates behavior analysis and detection best practices from other agencies/countries and leverages their data sources for research purposes
AIR Initiatives

- The American Institutes for Research (AIR) is currently contracted through the BDA Program to support the following initiatives:
  - Refinement of Suspicious Indicators
  - Development and Evaluation of Effective Performance Metrics for the SPOT Program
  - Examination of Racial/Ethnic Profiling in the SPOT Program
AIR Initiatives (con’t.)

Refinement of Suspicious Indicators Study:

Research Goals:

• Refine SPOT Referral Report indicators and operational definitions

• Develop and test new training materials associated with the revised indicator list

• Design studies that examine BDO performance as affected by human factors such as cognitive workload and fatigue

• Design a study to pilot test the revised indicator list
AIR Initiatives (con’t.)

Development & Evaluation of Effective Performance Metrics:

- Last year, the BDA Program developed a Performance Metrics Plan targeting three primary areas for further investigation:
  - Human Capital Management
  - General Performance Metrics
  - Security Effectiveness

- The plan is an initial roadmap for the next three years, identifying ideal target metrics, current initiatives for data improvement, current gaps in data collection, recommendations for closing the gaps, and potential challenges to achieving recommended solutions.

- AIR will provide support to BDA to assess, refine, and feasibly implement valid and reliable performance metrics.
AIR Initiatives (con’t.)

Examination of Racial/Ethnic Profiling in the SPOT Program:

• Recent allegations of racial and ethnic profiling in the airport screening process has intensified heightened awareness and public scrutiny around the SPOT Program.

• Per DHS Secretary Janet Napolitano’s request, DHS Civil Rights and Civil Liberties developed a list of recommendations and action items for TSA to mitigate potential racial profiling.
  
  • Focus on modifying aspects of TSA and SPOT policy and training
  
  • Re-emphasize the SPOT Program’s focus on aviation security
  
  • Highlight the need to further examine the racial and ethnic impacts of SPOT
AIR Initiatives (con’t.)

Examination of Racial/Ethnic Profiling in the SPOT Program:

- Research Goals:
  - AIR will seek to address five research goals to determine whether a disparity in referral rates exists, both at a system-wide level and at the individual officer level:
    - Goal 1: Demographic Characteristics of Selectees
    - Goal 2: Systematic Selection Bias
    - Goal 3: Profiling by Individual BDOs
    - Goal 4: Objectivity in BDO Selections
    - Goal 5: Comparison of Referral Patterns across Programs
AIR Initiatives (con’t.)

AIR Overview:

- Determine the impact of key human factor considerations on BDO performance.
  - These include fatigue, cognitive workload, and stimulus level

- Continue the validation of behavioral indicators based on analysis of suicide bombing incidents and other Law Enforcement related studies

- Continue the research into linking High Risk Outcomes (ex: smuggling) and Incidents of Terrorism

- Develop a structured analytic approach to individual P(d) calculation

- Continue research into methods of behavior detection beyond the current SPOT process
Managed Inclusion

Background:

- TSA is developing and testing Risk-Based Security (RBS) procedures to use at airports nationwide.

- The RBS program is intended to properly allocate screening resources against high-risk and unknown passengers, while simultaneously allowing those passengers who are inherently low risk to proceed through a more expedited screening process.

- The intent of the RBS Managed Inclusion (MI) procedures is to modify the current screening process to allow for the inclusion of passengers who are of unknown risk to be included into the TSA Pre✓™ lane.
Managed Inclusion (con’t)

Operational Assessment:

• TSA is conducting an operational assessment (OA) at various airports to evaluate the impact of having BDOs participate in the MI initiative.

• The focus will be on determining what is occurring during operations when BDOs are performing Screening of Passengers by Observation Techniques (SPOT) and excluding passengers from the MI screening lanes based on SPOT indicators.

• While participating in MI, BDOs are performing normal SPOT operations with the added role of excluding those individuals who meet a lowered SPOT threshold and are being paired with a Passenger Screening Canine (PSC).
Managed Inclusion (con’t)

Operational Assessment (con’t):

• This OA will serve as a starting point for determining the impact of using BDOs, SPOT, BDOs with PSCs, and the lower threshold within the MI paradigm.

• Additionally, this data may be used to provide input into other BDO performance metrics and human factors issues such as fatigue, the probability of encounter, and effectiveness measures, among others.
Future Technology

Behavior Detection Technologies:

- DHS S&T and TSA continue to investigate areas of technology and technology trends to develop innovative, passive, non-invasive technologies to assist in the identification of suspicious behavior indicators.

- Goal is to create a prototypical mobile platform that could be used to increase throughput, as well as the accuracy and validity of efforts to identify persons exhibiting suspicious behavior who might be planning to engage in harmful or destructive acts.

- Technologies will focus strictly on physiology and behavior in an attempt to prevent an unidentified person who is planning to do harm from gaining access to his or her desired location
Future Technology (con’t.)

Closed Circuit Television:

- The BDA Program plans to analyze the reliability and performance of having BDOs use Closed Circuit Television (CCTV) to identify individuals exhibiting suspicious behavior both locally and remotely.

- The use of CCTV will allow for:
  - A random and unpredictable screening capability
  - The augmentation of resources at busy airports with underutilized resources (using the peaks and valleys of passenger volume)
  - Expanded coverage in a cost effective manner
**Checkpoint Technologies Division Overview**

The Checkpoint Technologies Division (CTD) performs planning and execution of acquisition, procurement and strategic planning activities for the checkpoint screening program. CTD manages and prepares equipment recapitalization plans, ensures compliance with acquisition guidelines and policy, oversees planning and execution of budget activities, and coordinates with DHS S&T on R&D and detection activities. CTD ensures the most technologically efficient and effective capabilities are available for screening passengers and carry-on baggage.

<table>
<thead>
<tr>
<th>Portfolio Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Includes management of the Passenger Screening Program’s security technology.</td>
</tr>
<tr>
<td>• Three portfolios comprise PSP: People, Carry-on Baggage, and Layered.</td>
</tr>
<tr>
<td>• All checkpoint TSE fall into one of PSP’s three portfolios.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Equipment Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Assesses and evaluates innovative and emerging technologies that are not yet commercially available.</td>
</tr>
<tr>
<td>• Includes management of all contracts, OEM performance management reviews and equipment tracking.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technology Integration Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Includes development of the Security Technology Integrated Program and networking of checkpoint TSE.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Behavior Detection Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Includes the use behavior analysis capabilities to detect individuals who exhibit anomalous behavior, referring them to secondary screening when appropriate.</td>
</tr>
</tbody>
</table>
Passenger Screening Program Overview

The Passenger Screening Program (PSP) focuses on identifying, field testing, procuring, deploying, and sustaining equipment that detects explosives and/or prohibited items that may be concealed on passengers and/or their carry-on items. PSP’s adheres to four primary objectives.

<table>
<thead>
<tr>
<th>Enhance and Automate Threat Detection</th>
<th>Integrate Technology and Processes</th>
<th>Promote a positive passenger experience</th>
<th>Enhance Collaboration with Stakeholders</th>
</tr>
</thead>
</table>

**PSP Portfolios**

**People Screening**
Provides technical capability to allow Transportation Security Officers (TSO) to detect threats carried by passengers including explosives, weapons and other prohibited items.

- AIT, EMD, HRT

**Carry-On Baggage**
Provides technical capability to allow TSOs to detect threats on or concealed in the passenger’s carry-on baggage including explosives, weapons and other prohibited items.

- AT, BLS, ETD

**Layered Security**
Provides additional layers of capabilities outside of the checkpoint to create an enterprise security solution. Integrates passenger and baggage screening and provides technology capabilities beyond the checkpoint.

- CAT
Passenger Checkpoint Process

Passengers move through four integrated stages at the airport checkpoint.

1. Travel Document Checker
2. Primary Baggage Screening
   - Advanced Technology X-Ray
   - Credential Authentication Technology
3. Primary People Screening
   - Enhanced Metal Detector
   - Advanced Imaging Technology
   - Non-Pre✓™ Lanes Only
4. Secondary Screening
   - Explosive Trace Detector
   - Bottle Liquid Scanner

Pre-Screening  K9  Behavior Detection Officer

Transportation Security Administration
PSP Initiatives

Current program initiatives are focused on improving processes to drive efficiency and effectiveness of capability development.

Initiatives

1. Improve the requirements development process
   - Engage with stakeholders earlier in the requirements development process to assess the maturity of technology available in the market, develop obtainable requirements, and determine feasible capability development timelines.

2. Increase test and evaluation efficiency
   - Shorten the test process by providing stakeholders visibility into the testing process and data to close the gap between vendor results and lab results.

3. Enhance collaboration with stakeholders
   - Seeks to maintain and build relationships with international and domestic partners and vendors by sharing information such as program documentation to develop collaborative security solutions and to share best practices.

4. Establish robust Qualification Data Package (QDP) requirements
   - Confirm the maturity level of technology being submitted for qualification by providing vendors the data needed to confirm capabilities and increasing the information in the QDP to substantiate the results provided.

Key Elements

- Prototyping, Proof of Concepts, and Pilots
- Analysis of Alternatives
- Modeling & Simulation

- Qualification Readiness Testing
- Test & Evaluation Process Guide
- Data collection through DHS S&T BAA

- Program Documentation
- Industry Days
- BAAs/RFIs

- QDP Requirements
- DHS S&T Data
Security Technology Integrated Program

STIP connects TSE at checkpoints to a central enterprise manager, resulting in substantial improvements in information sharing, security agility, and operational efficiency for TSA.

**Improve Information Sharing and Management**

STIP collects and disseminates critical data related to TSE, improving situational awareness and risk-based decision making processes.

**Improve Security Agility**

STIP enhances TSA’s ability to respond to emerging threats by establishing an environment where the equipment responds dynamically.

**Increase Operational Efficiency**

STIP enables TSA to remotely monitor, diagnose, troubleshoot, and manage TSE, allowing TSA to address equipment issues, prevent failures, and reduce the need for on-site visits.

**STIP Capabilities**

- **Enterprise Management**
  - Automation of Data Collection
  - Automated Reports and Dashboards Provide Holistic View of Equipment Performance

- **Configuration Management**
  - Accurate Verification and Tracking of Configuration Settings for Threat Image Projection (TIP)
  - Automated TIP Library Management

- **Resource Management**
  - Automated Equipment Tracking
  - Transportation Security Equipment (TSE) and TSO Performance Tracking

- **Equipment Maintenance**
  - Increased Operational Availability
  - Proactive Maintenance
  - Remote Diagnostics
  - Reduced Mean Downtime
Infrastructure Gap Remediation

Current infrastructure gaps in the checkpoint reduce connectivity for STIP-enabled TSE and prevent TSA from realizing the full benefits of STIP. Efforts to remediate gaps to enable full STIP connectivity are ongoing.

**Background and Current State**

- Site surveys conducted by STIP during FY11Q3-FY12Q2 identified and documented infrastructure gaps in checkpoint and checked baggage areas.
- Gaps included a lack of horizontal cabling, insufficient port capacity, and lack of accessible floor jacks located near required TSE.
- CTD has organized the **Infrastructure Gap Remediation (IGR) Project**, comprised of an Integrated Project Team (IPT) and multiple Working Groups (WGs). Working Groups will focus execution on SOW and RFP package development leading up to the planned June 17th RFP Release.
  - IGR Contract Award is expected for September 6, 2013.
  - Working groups include teams from Checkpoint, Baggage and Solicitation

**Gap Remediation**

- Working in conjunction with the Office of Information Technology (OIT), STIP is working to close identified gaps and ensure adequate LAN/WAN infrastructure to support STIP connectivity.
- Infrastructure gaps will also be remediated through ongoing checkpoint and checked baggage redesign projects.
- The Checkpoint Design Guide (CDS) and Planning Guidelines and Design Standards (PGDS) version 4.1 for Checked Baggage Inspection Systems ensure that construction meets TSA standards, enabling connectivity for STIP enabled checkpoint and baggage TSE.
Engaging with TSA

TSA’s highly selective procurement process focuses on identifying vendors that provide systems which, 1) align with mission needs, 2) enable desired operational capabilities and 3) pose the least amount of risk to the programs.
Questions?
Advanced Surveillance Program

James Prokop, PSP
Deputy Program Manager
Advanced Surveillance Program (ASP)

What do we do?

The Advanced Surveillance Program (ASP) is the Transportation Security Administration's (TSA) collaborative surveillance technology resource. A component of the Office of Security Capabilities (OSC), ASP provides additional security capabilities as part of TSA's layered approach to Risk Based Security by enhancing the facilities existing system. As a result, TSA gains the ability to monitor the security screening process. Through participation in ASP, the transportation facility and the local TSA gain greater capabilities in remote monitoring, threat detection and assessment.

Key Points:

- Uses a repeatable process based on a facility and technology agnostic approach.
- Facilitates and uses locally generated requirements within the parameters of the larger program authority.
- Requests to participate are initiated at the local level and processed according to a prioritization matrix.
- Supports Other Transaction Agreements (OTAs) with the transportation authorities; these are not grants.
- The government gains access to systems supported by ASP funding.
## Program Accomplishments

### By Fiscal Year

<table>
<thead>
<tr>
<th>Project Development</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY13</td>
<td>4</td>
</tr>
<tr>
<td>FY12 Carryover</td>
<td>2</td>
</tr>
<tr>
<td>FY12 Additional Carryover</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Current Projects</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARRA</td>
<td>4</td>
</tr>
<tr>
<td>FY08-10</td>
<td>13</td>
</tr>
<tr>
<td>FY11-13</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>In Close-Out</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARRA</td>
<td>2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Closed 1</th>
<th>77</th>
</tr>
</thead>
<tbody>
<tr>
<td>ARRA</td>
<td>8</td>
</tr>
<tr>
<td>FY06-10</td>
<td>47</td>
</tr>
<tr>
<td>FY11-13</td>
<td>6</td>
</tr>
<tr>
<td>Perimeter</td>
<td>16</td>
</tr>
</tbody>
</table>

### Projects By Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Active</th>
<th>Closed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category X</td>
<td>12</td>
<td>28</td>
<td>40</td>
</tr>
<tr>
<td>Category I</td>
<td>13</td>
<td>32</td>
<td>45</td>
</tr>
<tr>
<td>Category II</td>
<td>1</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>Category III</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Category IV</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>27</td>
<td>77</td>
<td>104</td>
</tr>
</tbody>
</table>

### Expended ASP ARRA Funds

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>ARRA OTA Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY11</td>
<td>$20,180,858.28</td>
</tr>
<tr>
<td>FY12</td>
<td>$41,938,360</td>
</tr>
<tr>
<td>Q2 FY13</td>
<td>$49,777,144.64</td>
</tr>
</tbody>
</table>

### Total Expended ASP Funds

<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>OTA Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>FY11</td>
<td>$85,133,734</td>
</tr>
<tr>
<td>FY12</td>
<td>$131,916,857</td>
</tr>
<tr>
<td>Q2 FY13</td>
<td>$222,104,679</td>
</tr>
</tbody>
</table>
The Advanced Surveillance Program (ASP) can track its origins to public laws and reports dating back to 1990. The program supports:

- The Intelligence Reform and Terrorism Prevention Act of 2004 (Public Law 108-458) Section 4020 Checked Baggage Screening Area Monitoring.
- The Implementing Recommendation of the 9/11 Commission Act (Public Law 110-53), Section 1615. Law Enforcement Officer Biometric Credential, and Title 49 U.S. Code, Section 44903(h)(6). Use of Biometric Technology for Armed Law Enforcement Travel.
Video Quality in Public Safety VQiPS Joint Initiative

This project is an effort of the U.S. Department of Homeland Security’s Science and Technology Directorate’s Office for Interoperability and Compatibility.

Purpose
- To inform public safety agencies about how to develop their own guidelines and specifications for determining video quality needs

Outcomes
- Shared understanding of the importance of quality video applications and system components
- Increased knowledge of tools and documents available to assist public safety agencies in identifying and articulating their needs

The Future

Waiting for full approval by an SDO and acceptance of the interoperability standards that are already developed for possible inclusion in future efforts:

- Open Network Video Interface Forum (ONVIF)
  
  http://www.onvif.org/

- Physical Security Interoperability Alliance (PSIA)
  
  http://www.psialliance.org/
Air Cargo Security Technology Program

Robert Pryor
Division Director, Intermodal
Agenda

• Air Cargo Security Technology Program (ACSTP) Overview
• ACSTP Key Initiatives
• Air Cargo Screening Qualification Test (ACSQT)
• ACSQT Redesign Overview
• Air Cargo Screening Technology List (ACSTL)
• ACSTL Status of Version 8.5 (Expected Release Date of 05/17/13)
• Advanced Surveillance Program Update
Air Cargo Security Technology Program (ACSTP) Overview

• **Mission**
  ACSTP evaluates and qualifies air cargo screening technologies to prevent explosive devices from being transported in air cargo on a passenger aircraft. Additionally, ACSTP aims to evaluate and qualify human detection technologies to prevent human intruders from invading cargo aircraft and using them as weapons of mass destruction.

• **Vision**
  ACSTP strives to assess and test cargo screening technologies that are critical to the success of the Certified Cargo Screening Program (CCSP), the 100% Screening Mandate, and air cargo security at large. These technologies include cargo screening equipment, chain of custody technologies, and the management of a pipeline for future, more efficient and effective cargo security screening technologies.

• **Strategic Objectives**

<table>
<thead>
<tr>
<th>Term</th>
<th>Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Near Term</td>
<td>Qualify viable air cargo screening technology that is currently in the marketplace and/or can be quickly modified to meet the requirements of the 100% cargo screening mandate.</td>
</tr>
<tr>
<td>Medium Term</td>
<td>Evaluate emerging air cargo screening technologies and provide feedback to vendors to enhance products for qualification and the development of refined technology standards.</td>
</tr>
<tr>
<td>Long Term</td>
<td>Collaborate through the DHS Capstone IPT with S&amp;T to identify current technology gaps and support R&amp;D efforts for future air cargo screening technology requirements.</td>
</tr>
</tbody>
</table>
# Air Cargo Security Technology Program (ACSTP) Key Initiatives

<table>
<thead>
<tr>
<th>Description</th>
<th>FY13 Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Air Cargo Screening Qualification Test (ACSQT)</strong></td>
<td>• The ACSQT process involves the demonstration, verification, and validation that a candidate cargo screening technology meets established TSA requirements and standards.</td>
</tr>
<tr>
<td></td>
<td>• Published a RFI on Fed Biz Ops which outlines the full details of a modified qualification process</td>
</tr>
<tr>
<td></td>
<td>• Evaluating 13 X-ray devices and 4 Explosive Trace Detection (ETD) devices</td>
</tr>
<tr>
<td><strong>Innovative Technology Review Process (ITRP)</strong></td>
<td>• ITRP is a process for ACSTP to assess and evaluate innovative and emerging technologies that are still developing but not yet commercially available.</td>
</tr>
<tr>
<td></td>
<td>• Developing long term R&amp;D Roadmap</td>
</tr>
<tr>
<td><strong>Supply Chain Integrity Technology (SCIT)</strong></td>
<td>• ACSTP evaluates and develops standards for supply chain integrity technologies for certified cargo screening facilities to use when securing screened cargo from point of screening until loading aboard aircraft. Examples include tapes, ties, mechanical locks, and secure cartons.</td>
</tr>
<tr>
<td></td>
<td>• Drafting and preparing to release a RFI on Fed Biz Ops which will outline the details for qualification of tamper evident tape</td>
</tr>
<tr>
<td><strong>Data Analysis Reduction Team (DART)</strong></td>
<td>• DART processes and analyzes operational and technical data from regulated industry to streamline and integrate air cargo policy, procedures, and regulations.</td>
</tr>
<tr>
<td></td>
<td>• Continuing to collect data on air cargo operations and evolving landscape</td>
</tr>
</tbody>
</table>
Air Cargo Screening Qualification Test (ACSQT) Overview

• Formal evaluation process by which screening devices are added to the Air Cargo Screening Technology List (ACSTL).

• The ACSTL is used by regulated parties to procure equipment necessary to meet the 100% air cargo screening mandate outlined in Public Law 110-53.

• Since April 2009, the program has evaluated 189 devices and authorized 110 for inclusion on the list.

• The current evaluation process is outlined on Fed Biz Ops Request For Information: HSTS04-12-SSN-CT5513

• TSA redesigned the ACSQT in order to expand submission opportunities, increase evaluation flexibility, and reduce the test format.
## Air Cargo Screening Qualification Test (ACSQT) Redesign Overview

<table>
<thead>
<tr>
<th>Redesign Area</th>
<th>Previous Approach</th>
<th>New Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission Process</td>
<td>• Limited submissions to predefined annual timeframes.</td>
<td>• Allows submissions anytime during the year along with the opportunity to remediate shortfalls</td>
</tr>
<tr>
<td>Evaluation Method</td>
<td>• Applied a standard evaluation process to all submissions.</td>
<td>• Uses a customized qualification test process.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Devices with a similar configuration already on the ACSTL will be added based on a qualification data packet (QDP) review, a physical configuration audit (PCA), and a preliminary image quality test.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Devices from a manufacturer which already has another device on the ACSTL, or which is established internationally, will be added based on a QDP review, a PCA and an abbreviated on-site evaluation by an audit team.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Devices from an unknown manufacturer will be added based on a QDP review, a PCA, and a full evaluation at a TSA designated facility.</td>
</tr>
<tr>
<td>Test Format</td>
<td>• Required field testing to evaluate suitability parameters.</td>
<td>• Normally eliminates field testing for established manufacturers and designs. TSA still reserves the right to perform field testing at its discretion.</td>
</tr>
<tr>
<td></td>
<td>Slide 43</td>
<td></td>
</tr>
</tbody>
</table>
The ACSTL includes three sections:

- **Qualified**
  - Equipment that has passed a formal TSA sponsored test process and is deemed qualified for screening operations. When procuring equipment, regulated parties are encouraged to select equipment from the qualified section.

- **Approved**
  - Equipment that has been conditionally approved for screening operations and is currently undergoing or scheduled for field test activities.

- **Grandfathered**
  - Equipment that is currently approved to screen cargo, but has a stated expiration date. This allows regulated parties who are using the grandfathered technology an opportunity to gradually phase out the equipment and transition to devices listed in the qualified or approved sections.

TSA publishes new versions of the ACSTL as new technologies become qualified through the ACSQT.

A Non-SSI version of the ACSTL is available on tsa.gov, under Air Cargo’s Standards and Regulations.
## Air Cargo Screening Technology List (ACSTL) Status

(As of Version 8.5)

<table>
<thead>
<tr>
<th>Technology</th>
<th>Qualification Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>X-Ray</td>
<td><strong>Qualified:</strong> 80 X-Ray devices from 7 OEMs&lt;br&gt;- 26 Capacity A systems&lt;br&gt;- 31 Capacity B systems&lt;br&gt;- 23 Capacity C systems&lt;br&gt;<strong>Approved:</strong> 1 Capacity A system from 1 OEM</td>
</tr>
<tr>
<td>Explosives Trace Detection</td>
<td><strong>Qualified:</strong> 2 ETD devices from 2 OEMs&lt;br&gt;<strong>Approved:</strong> 1 ETD devices from 1 OEM&lt;br&gt;<strong>Grandfathered:</strong> 4 ETD devices from 2 OEMs</td>
</tr>
<tr>
<td>Electronic Metal Detection</td>
<td><strong>Approved:</strong> 6 EMD devices from 3 OEMs</td>
</tr>
<tr>
<td>Explosives Detection Systems</td>
<td><strong>Qualified:</strong> 15 EDS devices from 3 OEMs</td>
</tr>
</tbody>
</table>
Questions
Department of Homeland Security
Science and Technology Directorate
Working with TSA to Plan for the Future
Dr. Eric Houser
Checked Baggage Technologies Division

Mario Wilson
Acting Deputy Director, Checked Baggage Technologies Division
The Electronic Baggage Screening Program (EBSP) is currently focused on recapitalizing its aging fleet of screening equipment, acquiring new EDS technology through the competitive procurement, and upgrading the deployed fleet to the latest detection standard. Anticipated budget reductions could lead to reduced funding in future years.

**Recapitalization and Optimization**
- The recapitalization of aging screening equipment is the Program’s top priority and requires a majority of its funding.
- Successful execution of recapitalization and optimization relies on visibility to, input from, and coordination with airports and Industry.

**EDS Competitive Procurement**
- TSA deployed its first EDS-CP unit in June 2013, a CT-80 DR+ reduced-size stand alone EDS.
- TSA anticipates the award of a MSEDS contract before the end of FY13, and the award of HSEDS contracts before the end of FY14.
- EBSP’s rolling Qualified Products List (QPL) acquisition strategy provides an open opportunity for vendors to qualify EDS.

**Detection Upgrades**
- TSA will complete EDS upgrades to the 2010 Detection Standard before the end of FY14.
- Technical obsolescence, which is the inability to reach the next detection standard, will be a main driver for ranking future projects.
Recapitalization and Optimization

In order to take advantage of available funding prior to potential budget reductions, TSA has accelerated the execution of recapitalization projects by instituting a two-phased OTA approach.

**Planned Projects**
- TSA plans to execute approximately 38 airport projects in FY13.
- If a project planned for FY13 cannot be executed this fiscal year, TSA will address the potential for project execution with the next airport on the prioritized list of projects.
- While optimization is already anticipated at some airports, any recapitalization airport will be able to propose optimization as one of their alternatives in the design package submittal.

**Two-phased OTAs**
- A two-phased Other Transaction Agreement (OTA) approach will be taken to assist airports in funding design work required for recapitalization.
- Design OTAs were awarded for all FY13 projects.
- Facility Modification OTAs are planned for obligation prior to the end of FY13.

**Airport Coordination**
- Close coordination with airports will ensure these projects can occur within the current plan.
- Early information-sharing and site visits to assist airports in developing the scope of each project.
Recapitalization: Airport & Industry Involvement

The majority of the initial recapitalization planning process is handled by TSA HQ, however airports and Industry may be asked to participate in site evaluation, cost-effectiveness analysis for optimization, and/or funding of airport projects.

Site Evaluation
- While TSA collects data and prioritizes units for recapitalization, airports will be asked to participate in planning efforts, if necessary, and to facilitate a site visit for TSA-OSC and contractor personnel.

Funding
- TSA will pay for 100% of the cost associated with recapitalization of equipment.
  - No cost share will be required from airports for recap projects.
- Any optimization efforts that are approved by TSA will include a necessary cost share between TSA and the airport.
  - Large and medium hub airports will be responsible for a 10% cost share
  - Small/non-hub airports will be responsible for a 5% cost share of allowable costs, up to the not-to-exceed dollar value of each project.
Optimization: Airport & Industry Involvement

Cost Effectiveness Analysis for Optimization

Considerations
• TSA will only consider funding optimization efforts after conducting a cost effectiveness analysis.
• The analysis will determine if TSA should invest in the project and what level of funding TSA could contribute, if funds are available.
  – If the results of the analysis are unsatisfactory, TSA will continue to support 100% of the costs of the recapitalization project, as previously agreed upon.

Approach
• TSA is actively engaging airports and Industry to utilize a Return on Investment (ROI) approach to determine the cost effectiveness of optimization projects.
  – The ROI approach takes into consideration the TSA costs and benefits.
  – A positive ROI must be realized by the federal government within 10 years to proceed with an optimization project.
  – Airports may opt to increase their cost share or decrease the cost of the project to support TSA realizing a positive ROI within 10 years.
EDS-CP and Detection Upgrades

**EDS-CP Rolling QPL**
- Vendors can submit a Qualified Data Package at any time once certification readiness and certification testing has been successfully completed.
- Upon successful completion of required testing milestones, EDS will be placed on the QPL.
  - Previously, vendors were provided windows of opportunity within a specified timeframe to submit their certified systems for qualification.
  - These windows no longer exist, and an EDS may enter the certification and qualification process at any time.

**Detection Upgrades**
- All EDS will be upgraded to the 2010 Detection Standard before the end of FY14.
- The next round of EDS procurements and upgrades will be to the 2012 Detection Standard.
  - These upgrades are expected to require changes to secondary alarm resolution protocols and technologies.
Moving Forward

- Efficient execution and close collaboration with Industry and airports is critical to the execution of recapitalization and optimization projects.
- The Program will continue working FY13 Recap projects towards completion.
- FY14 Recap projects will be ranked on new criteria related to technical obsolescence.
- Outreach to FY14 airports is expected to begin in Q1 FY14 in order to commence the recapitalization process.
Test and Evaluation
Operational Support Division

Keith Goll
Division Director, Operational Support Division

Matt Cobey
Section Lead, Operational Testing
Agenda

• Overview of Test & Evaluation in TSA
• Discussion of the Third Party Testing Concept
• Introduction of the Test & Evaluation Process Guide
• Overview of Operational Testing
• Participant Discussion and Q&A Session
Introduction

TSA OSC is in a budget constrained environment requiring focus on improved efficiency in T&E process in order to continue to meet mission needs and evolving threats.

Goals and Objectives

- Accelerate the process of delivering new capabilities to the user that improve effectiveness and efficiency
- Improve collaboration and transparency with vendors early on in the acquisition and test processes
- Foster an understanding of TSA’s operational environment and integrate mission needs into system development and testing
- Provide tools and processes to vendors and industry to facilitate more mature systems entering the TSA T&E Process
OSC Test and Evaluation Organizational Structure

Within OSC, multiple divisions and sections are involved in the test & evaluation process, from schedule and facility coordination to final system evaluation.
The formal T&E process begins with entry into Developmental Testing (DT) and concludes with an acquisition decision. Third Party Testing or “Pre-Testing” is a new concept introduced in the T&E Process Guide.
**Current & On-going Efforts**

TSA OSC’s T&E FY13 Budget is approximately $50 million.

<table>
<thead>
<tr>
<th>Project/Initiative</th>
<th>Overview</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>On-going Testing</strong></td>
<td>AIT-2, EDS-CP, AT-2, CAT, ETD&lt;br&gt;TSIF conducted 47 demos, 51 tours, and over 130 test events in FY13&lt;br&gt;Completed 667 FAT and 2,413 SAT; additionally, completed 59 ISAT projects with 208 EDS units</td>
</tr>
<tr>
<td><strong>RBS</strong></td>
<td>Passenger Screening Security Effectiveness&lt;br&gt;Concept Exploration Testing&lt;br&gt;Enhanced Selectee Screening&lt;br&gt;American Airlines Boarding Pass&lt;br&gt;Managed Inclusion</td>
</tr>
<tr>
<td><strong>T&amp;E Improvements</strong></td>
<td>TSIF ISO&lt;br&gt;Test Article Program&lt;br&gt;OT Test Sites&lt;br&gt;Third Party Testing&lt;br&gt;Test &amp; Evaluation Process Guide</td>
</tr>
</tbody>
</table>
Overview of Third Party Testing

In an effort to expedite the acquisition of qualified systems and address common testing issues, TSA supports the establishment of preliminary system development gateways by identifying capable third party testing facilities.

**Purpose**
- Assist OEMs in developing more mature systems that can quickly progress through each phase of testing by providing objective and expert pre-testing support.
- Improve communication and collaboration by establishing new processes for sharing information and resolving system deficiencies.
- Improve TSA's ability to more efficiently test, acquire, and deploy, effective and suitable technologies.

**Short-Term Strategy**
- An RFI was released to gather information from possible testing facilities and to explore the role that third party facilities will play in pre-testing activities.
- Provide third party testing responses to current and potential OEMs for their consideration.
- Formalize process for providing TSA documentation to OEMs / third party testers and improving QDP submissions prior to QT.

**Long-Term Strategy**
- As the third party testing concept matures and evolves, TSA would look to qualify third party testers as well as facilities to potentially sponsor certain test events in an effort to reduce the overall time of TSA testing.
Introduction of the T&E Process Guide

The T&E Process Guide provides a concise and comprehensive overview of the TSA testing process and also introduces the new strategy and concept of third party testing.

Overview

- The process guide details all phases of the T&E process, from initial planning and developmental testing, to evaluation criteria and acquisition.
- It identifies roles and responsibilities for key stakeholders, including OEMs, throughout each phase and describes criteria that must be met to progress to system acquisition.
- Finally, it introduces the concept of third party testing to assist OEMs with initial systems engineering, resulting in improved system capabilities as well as expedited testing and acquisition.

Intended Audience

- The process guide is intended primarily for the Transportation Security Equipment (TSE) developer community, to include existing as well as prospective OEMs, large or small, desiring to do business with TSA to supply systems intended for acquisition by TSA.
- The guide will also serve as a central point of reference for other internal and external inquiries regarding test & evaluation within OSC.

Purpose

- To assist OEMs in developing a better understanding of the testing, evaluation, and acquisition process, as well as to improve communication and information sharing between TSA and vendors.
- To introduce and solicit feedback on the new strategy and concept of third party testing, which is designed to improve the capability of systems initially submitted to TSA and testing results.
Operational Testing (OT)

Once a system successfully meets DT/QT exit criteria, it moves into OT. OT independently validates the extent to which candidate systems are operationally **effective** and **suitable** in the intended environment.

**OT Overview**

- OT is conducted to support an acquisition decision and assess a system's operational effectiveness and suitability using typical, trained personnel in a realistic operational environment.
- OT involves a variety of stakeholders across TSA and DHS and requires close coordination through the test planning, execution, and reporting process.

**OT Phases***

- **Coordination**
  - Install and integrate systems
  - Perform Site Acceptance Test (SAT) to determine readiness for burn-in
  - Perform Operational Test Readiness Review

- **Burn-in**
  - TSOs operate system during live operations to allow system to become stable and refine data collection procedures
  - Review readiness criteria before moving on

- **Record Testing**
  - Once system stabilizes, execute specific test procedures to collect relevant data
  - Vendor does not have access to system without prior coordination

- **Test Close-out and Site Restoration**
  - Removal of systems and re-installation and re-integration of any legacy equipment as required

* OT Phases

---

**OEM hand-off and CM lockdown**
# Operational Testing Types

The Operational Test Section (OTS) performs a variety of tests to accurately assess the effectiveness and suitability of new and existing technologies.

<table>
<thead>
<tr>
<th>Operational Test &amp; Evaluation (OT&amp;E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>OT&amp;E is conducted to support an acquisition decision and assess a system's operational effectiveness and suitability using typical, trained personnel in a realistic operational environment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Operational Assessment (OA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assessments are conducted to assess a system's or process' operational effectiveness and suitability based on configuration or requirements changes and do not support acquisition decisions.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Follow-on Operational Test &amp; Evaluation (FOT&amp;E) and Follow-on Operational Assessment (FOA)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Follow-on testing may be necessary to verify the resolution of issues discovered during the OT&amp;E or OA, evaluate significant system changes, and/or to reevaluate the system to ensure that it continues to meet operational needs and retains its effectiveness in a new environment or against a evolving threats.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Proof of Concept (PoC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supports decisions to proceed with further concept development, additional testing, and/or to implement new processes and operations.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Excursion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supports ongoing operational testing / assessment evaluations and CONOPS / SOP development.</td>
</tr>
</tbody>
</table>
TSA OSC Test & Evaluation Timeline

The formal T&E process concludes with the completion of OT and publishing the System Evaluation Report and Letter of Assessment.

The formal acquisition process concludes with a favorable Investment Review Board decision.
## Service Acquisition Update

<table>
<thead>
<tr>
<th>Program Management Support Services</th>
<th>Aug 2013</th>
<th>Sep 2013</th>
<th>Nov 2013</th>
<th>MOBIS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OCI Conflict with BFSS. Others mitigable.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OCI Conflict with everything. No mitigation.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Business Operation Support Services</th>
<th>Jul 2013</th>
<th>Aug 2013</th>
<th>Sep 2013</th>
<th>TABSS D1/T2</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OCI Conflict with everything. No mitigation.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OCI Conflict with BFSS and BOSS. Others mitigable.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EBSP Services</th>
<th>Sep 2013</th>
<th>Oct 2013</th>
<th>Dec 2013</th>
<th>Unknown</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Solicitation Release</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Award**
Industry Engagement Activities

Industry Lead Recurring

Industry Lead Events

Government Lead Events

Focus Groups
- Innovation
- Small Business
- Systems Engineering
- Enhancing Passenger Experience
- Test and Evaluation
- Reliability
- Deployment

OSC SMALL BUSINESS Networking Day

Procurement Industry Days and Requests for Information

Program Briefings Series
Ongoing Procurement Initiatives

- DHS strategically sourced vehicles will be used as much as possible, but will be evaluated every time for efficiency and effectiveness.

- Best value, trade-off source selections will become the norm for both equipment and services, using technical prompts and discriminators vice generic technical proposals.

- Smaller service requirements awarded "just in time" instead of larger, "draw down" structures.

- Continued progression to fixed priced requirements.

- Continued efforts to increase competition on equipment.

- Obtaining technical data packages and rights to technical data.