ACC/TSA Security Capabilities Day & Technical Workshop

Office of Security Capabilities

John Sanders, Assistant Administrator

June 24, 2014
Intel-Driven Risk Based Security

OSC has two goals aligned to the broader TSA goal of *intel-driven RBS*. OSC’s goals focus on enabling smarter investment decisions that support RBS, while also working with partners throughout the capability lifecycle to increase effectiveness.

OSC supports RBS through analysis and improved/efficient acquisitions, and OSO supports RBS through training and execution of risk based principles, processes and procedures in day-to-day operations. Both have a similar goal of using RBS to enhance and expedite travel and commerce.
TSA Organizational Goals

Workforce Engagement

OSC’s goals and objectives for *engaging the workforce* focus on developing leaders, enhancing job opportunities, effectively managing employee performance, efficiently hiring new employees, and improving communication.

Both OSC and OSO share a commitment to talent, and prioritize performance management and training opportunities, developing supervisors and managers into leaders, and improving the hiring process. This prioritization enables TSA to become a High Performing Counterterrorism Organization.
TSA Organizational Goals

Organizational Efficiency

OSC focuses on accelerating and improving the capability delivery process, enabling OSO to use those processes, capabilities and improvements to enhance risk-based operations.

Aligned with TSA’s third goal, *efficient organization*, OSC seeks to accelerate the process of delivering new capabilities to the user and to support risk-driven operations that provide effective and efficient security.
OSC Strategic Plan – Timeline

2013

Q1
- Team Initiates Plan Development

Q2
- TSA Administrator Briefed on Plan
- OSC Strategic Plan Published

Q3
- Employees Trained on OSC Strategic Plan
- OSC Action and Implementation Planning Beginning

Q4
- Industry Briefed on Plan Progress and Development
- Plan Expectations Incorporated in Performance Plans

2014

Q1
- Plan Implementation Begins

Q2
- Progress Monitoring and Dashboard Development
- OSC Strategic Capability Investment Plan Published

Q3
- ACC/TSA Security Capabilities Day & Technical Workshop

Q4
- Annual Review
Strategic Planning Dashboard

Year 1 OSC Strategic Plan Dashboard

Objective 1.1 Success has been defined through:
- Acted on innovative ideas that improve or optimize mission success
- Developed relationships with new, less traditional partners
- An environment of exploration and innovation

Objective 1.2 Success has been defined through:
- Improved ability for OSC to deploy new capabilities quickly and effectively to the field
- Streamlined testing process that reduces testing costs and reduces schedule risk
- Expanded transparency for industry partners in T&E process

Objective 1.3 Success has been defined through:
- Improved ability for OSC to deploy new capabilities and upgrades quickly in response to threats and issues
- An organization commitment and toolset to drive continuous improvement of capabilities and performance
- Established operational test beds for rapid response, proofs of concepts, and pilots

1.1 Expand use of stakeholder engagement mechanisms
- Conduct outreach with internal and external stakeholders including DHS S&T; Federal, State, and Local entities; and private industry to capture and update capability gaps, capture R&D inputs, and refine requirements for transportation security capabilities
- Establish external and internal prize competitions to solicit innovative solutions, engage new partners, and give OSC a better understanding of solutions available in the market

1.2 Improve the testing and evaluation process
- Enhance rules and evaluation criteria used to determine capability readiness for each stage of the T&E process
- Collaborate and work with vendors early in the process so they are better prepared to pass T&E
- Establish incentives and penalties specific to the T&E process to drive improved vendor performance and reduce cycle times

1.3 Deliver effective core capabilities to the field quickly and continuously
- Establish management structures and acquisition strategies that support incremental development and piloting of new capabilities
- Partner capabilities to mitigate risks, enable efficiency in the field, or improve processes
- Support engagement with international partners to drive harmonization of standards and increase global security
- Develop business intelligence capabilities to enable better decision-making, strategic alignment, resource allocation, and performance management
- Optimize O&M for fielded capabilities to drive return on investment
- Improve performance management culture by educating the workforce on performance management
- Reduce the time to hire an applicant and provide hiring managers with tools and resources

On Track, Minimal Risks, On Track, Some Risks, Off Track, Significant Risks, Unavailable Data

Back to Dashboard

The following information provides the performance measures progress for all objectives under Strategic Plan Goal 1.
### Objective 1.2: Improve the testing and evaluation process to provide more certainty and efficiency

#### 1.2.1 Enhance rules and evaluation criteria used to determine capability readiness for each stage of the T&E process

<table>
<thead>
<tr>
<th>Action</th>
<th>Current</th>
<th>Year 1 Target</th>
<th>Year 1 Progress Made</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collect data from internal and external stakeholders regarding GMP process</td>
<td>11%</td>
<td>Completion</td>
<td></td>
</tr>
<tr>
<td>Reduce amount and subsequent cost for re-test by 50%</td>
<td>80% Reduction</td>
<td>50% Reduction</td>
<td></td>
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</tbody>
</table>

#### 1.2.2 Collaborate and work with vendors early in the process so they are better prepared to pass T&E

<table>
<thead>
<tr>
<th>Action</th>
<th>Current</th>
<th>Year 1 Target</th>
<th>Year 1 Progress Made</th>
</tr>
</thead>
<tbody>
<tr>
<td>Share all allowable planning documents with vendors</td>
<td>25%</td>
<td>100%</td>
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</tr>
<tr>
<td>Collect data from internal and external stakeholders regarding vendor communications</td>
<td>20%</td>
<td>Completion</td>
<td></td>
</tr>
<tr>
<td>Reduce amount and subsequent cost for re-test by 50%</td>
<td>80% Reduction</td>
<td>50% Reduction</td>
<td></td>
</tr>
</tbody>
</table>

#### 1.2.3 Establish incentives and penalties specific to the T&E process to drive improved vendor performance and reduce cycle times

<table>
<thead>
<tr>
<th>Action</th>
<th>Current</th>
<th>Year 1 Target</th>
<th>Year 1 Progress Made</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify incentive/penalty options for submission to OA</td>
<td>55%</td>
<td>Completion</td>
<td></td>
</tr>
<tr>
<td>Establish contract roadmap for targeted incentive inclusion, if adopted</td>
<td>55%</td>
<td>Completion</td>
<td></td>
</tr>
</tbody>
</table>
OSC Strategic Capability Investment Plan

Solicitation Number: HST04-14-OSC_Invest_Plan
Agency: Department of Homeland Security
Office: Transportation Security Administration
Location: Headquarters TSA

Solicitation Number: HST04-14-OSC_Invest_Plan
Notice Type: Special Notice

Summary:
Added: May 30, 2014 8:27 am
Over the next five years, the Transportation Security Administration’s (TSA’s) Office of Security Capabilities may invest $2.2 billion in technologies, infrastructure and capabilities to secure the Nation’s transportation system. These investments range from funding test beds in mass transit locations, to developing innovative new technologies for threat detection, to procuring equipment for airport screening including baggage handling systems. These investments will support TSA’s ongoing transformation to a risk-based counter terrorism organization.

OSC developed this investment plan to help stakeholders understand the agency’s direction and align their own investments and product development initiatives accordingly. This plan intends to provide a cohesive vision for the development and successful transition of technology and security solutions. TSA and the DHS Science & Technology Directorate (DHS S&T) define Research & Development (R&D) goals and objectives to closely align investments with TSA mission needs in an effort to drive tangible solutions and innovations in transportation security.

This plan identifies priority areas for TSA’s security capability investments and principles for executing against the plan. Furthermore, it organizes TSA’s priorities into the following five strategic capability investment areas:

1. Enhanced Computing Services
2. Physical Security
3. Management, Training and Education
4. Improved Passenger Processing
5. Secure Domestic and Global Traveler Identification

Published on FedBizOpps.gov on May 30, 2014
“Over the next five years, the Transportation Security Administration's (TSA's) Office of Security Capabilities may invest $2.2 billion in technologies, infrastructure and capabilities to secure the Nation's transportation system.”
TSA Security Capability Investment Priorities

Strategic Investments Mapping

Managing an Integrated and Dynamic System

Addressing Emerging Threats and Creating New Efficiencies

Addressing Known Threats and Inefficiencies

TRANSFORMATIONAL

ADJACENT

CORE

Existing Capabilities and Assets

Existing Capabilities with New or Enhanced Application

New Capabilities and Assets

Business intelligence
Risk assessment
Canines
Enhanced X-ray and imaging
Security Technology Integrated Program

Human Factors
Standardized technology platforms

Minimize divest requirements
Credential authentication
Test and Evaluation
Behavior-based screening & tech
Explosive trace detection
Advanced checked baggage
TSA Security Capability Investment Priorities

Aviation Threat Detection

Enhance and augment checkpoint imaging and x-ray technologies to improve detection, increase adaptability and improve the passenger experience.

**Investment Statement:** Within the aviation security landscape, TSA’s security posture must change to adapt to emerging threats. Currently, checkpoint imaging and x-ray technologies limit OSC’s ability to adjust and respond to emerging threats or unanticipated operational changes. Through targeted investment, OSC seeks to increase detection capabilities for deployed systems by incorporating a broader range of threats, enhancing detection algorithms, and providing more discriminating features for algorithms to process. Enhanced algorithms will also lower false alarm rates, reducing the need for physically invasive pat downs and increasing checkpoint throughput, resulting in improved passenger experience and operational efficiency gains. To support the expansion and maturation of Risk-Based Security, OSC also plans to invest in dynamic algorithm functionality, which would allow TSA to tailor detection to the passenger’s risk level.

**Investment Need:**
- Enhance algorithms to increase the probability of detection for existing threats and expand detection performance to incorporate new threats
- Provide additional discriminating features for analysis
- Improve accuracy of algorithms to lower false alarm rates
- Develop dynamic algorithms for technologies to support a flexible approach to threat detection
- Integrate security capabilities through STIP and establish network infrastructure to support real-time data collection of system performance

**Investment Type:** Core
**Real Time Threat Assessment**

**Enhance canine threat detection capabilities and broaden their operational utility.**

**Investment Statement:** Currently there are Passenger Screening Canine (PSC) teams deployed at airports to augment existing explosive detection security equipment and procedures through use of odor detection. Like any capability, OSC tests and measures the effectiveness of the PSC teams in their intended deployment environment before operationalizing them in the field. The use of canines to screen passengers as part of the risk-based security approach is a deviation from their original qualified application in the field, which required new training, effectiveness testing and deployment plans. Through this investment, OSC seeks to increase the effectiveness of canine detection, as well as increase the ability to deploy PSC teams flexibly across the transportation security domain with certainty in their effectiveness despite the environmental challenges.

**Investment Need:**
- Evaluate broadened applications of canine screening operations
- Improve training methods, and developing new training aids for detecting homemade explosives (HME)
- Improve the canine breeding program by studying the canine olfactory system and behavioral and genetic markers that could predict high-performance explosive-detection canines

**Investment Type:** Core
Develop standardized technology platforms, interfaces and data formats.

**Investment Statement:** The threat to transportation evolves constantly while the systems and solutions TSA deploys to counter terrorist threats may remain in service for many years. In order to maintain effectiveness while maximizing return on fielded technology solutions, OSC requires flexible solutions that can adapt to maintain a high level of effectiveness as threats and adversaries change. Moreover, the standardization of component interfaces will allow accelerated independent development of critical component technologies as well as the establishment of modular security system platforms. Standardized image and data formats will reduce barriers to integration that exist because of the technical differences between proprietary vendor systems. It will also provide flexibility to acquire capabilities that have the potential to be integrated with independently developed detection algorithms, imaging programs and operating platforms.

**Investment Need:**
- Develop new standards and standardized interfaces for security systems components
- Establish industry standard image and data formats for X-ray imaging systems

**Investment Type:** Transformational
Priority Areas

The following priority areas detail OSC’s investment strategy for building and enhancing system engineering and governance capabilities:

Expand and enhance risk assessment capabilities to inform TSA strategy, management and operations.

**Investment Statement:** TSA manages risk in a dynamic landscape where adversaries display skill, thoughtful planning, and knowledge of security measures when planning attacks on the aviation security landscape. This priority area seeks to develop new tools, techniques, and training programs to advance OSC’s risk analysis capabilities. OSC also seeks to establish standardized risk assessment methodologies to enable better integration of analysis outputs and better support TSA’s risk-driven operations.

**Investment Need:**
- Identify improved data points that provide more insight to threat vulnerabilities for use in risk assessment analysis
- Develop new risk assessment tools, techniques, and training programs that advance risk analysis capabilities
- Establish standardized risk assessment methodologies that integrate analysis outputs

**Investment Type:** Adjacent
Improving high throughput threat detection capabilities.

**Investment Statement:** High throughput screening of passengers, baggage, cargo, and vehicles (e.g., rail cars) for a broad range of threats will increase security while minimizing the disruption to commerce and travel. End users and owners of all passenger modes of transportation (e.g., mass transit, aviation, and maritime) will benefit from the efficiencies of higher throughput.

Targeted systems face significant operational challenges, as they are required to operate in a broad range of environments, including indoor and outdoor areas with complex ambient background conditions (e.g., dusty subways) and in locations with a broad range of temperatures. Additionally, potential solutions should improve upon existing capabilities by delivering broader threat detection, increased throughput, higher probability of detection, and lower false alarm rate than current capabilities. Broader surveillance solutions requiring less security personnel, occupying a reduced footprint, and providing 360-degree screening are desired.

**Investment Need:**
- Pilot and qualify automated detection and/or identification of anomalies to reduce training and operator/manpower needs
- Provide non-invasive or stand-off screening of passengers, baggage, freight, and vehicles for threats (e.g., weapons, explosive threats, biological threats, or chemical threats)
- Synthesize detection across networked sensors and at a centralized location
ACC/TSA Security Capabilities Day
Office of Security Capabilities Briefings

June 24, 2014
Agenda

• Mission Analysis
• Aviation Checkpoint
• Advanced Surveillance Program
• Air Cargo
• Checked Baggage
• Test & Evaluation
• Acquisitions
• Deployment
Agenda

• Technology Screening Equipment (TSE) Segment Architecture
• Targeted Broad Agency Announcement (BAA) Process
• Transportation Security Capability Analysis Process (TSCAP)
• Technology Harmonization
• Questions?
Technology Screening Equipment Segment Architecture
OSC Requires a Forward-Looking Architecture

To further advance risk-based screening the Office of Security Capabilities requires a segment architecture to outline their current and future business and equipment needs to minimize acquisition risk when developing new capabilities.

The Transportation Security Equipment (TSE) Segment Architecture will outline the future security screening system, its components, and the relationships between them.

A TSE Segment Architecture will help OSC achieve:

- Enable interoperability and modularity of transportation security equipment
- Reduce the cognitive burden on TSOs, increasing their effectiveness
- Facilitate the acquisition of components instead of system suite, allowing for modular repairs and upgrades
- Assist programs in developing integrated technology roadmaps for future acquisitions
- Provide analysis to define technological requirements for future screening system
- Enable platform shift in screening capabilities
- Identify technological standards and equipment necessary to support further RBS implementation
- Develop and define risk-based functionality and automation in the screening system
- Provide common system understanding of how TSE will perform during screening and what data will be employed to make RBS decisions
The TSE Segment Architecture (TSE-SA) will define current and future screening capabilities of TSA and leverage existing architectures and methodologies, to include:

<table>
<thead>
<tr>
<th>TSE-SA will:</th>
<th>Housed in:</th>
<th>Informed by:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leverage &amp; Develop</td>
<td>E.g. TSCAP</td>
<td>Flight-by-Flight, TSA Risk Architecture IPT</td>
</tr>
<tr>
<td>Leverage</td>
<td>E.g. TSA-RK (OIA)</td>
<td>OIT EA, TSA Risk Architecture IPT</td>
</tr>
<tr>
<td>Leverage</td>
<td>OIT EA</td>
<td>STIP, TSA Risk Architecture IPT</td>
</tr>
<tr>
<td>Develop</td>
<td>TSE-SA</td>
<td>TSCAP, Flight-by-Flight, OSC Working Group</td>
</tr>
</tbody>
</table>

The TSE-SA seeks to define future physical screening capabilities necessary to enable an integrated and modularized security screening system that is risk-based, efficient and effective.
**Benefits of the TSE Segment Architecture [OSC]**

The TSE Segment Architecture will define current and future security capabilities and provide a structured approach to develop and insert new technologies aligned to capability gaps and organizational objectives.

<table>
<thead>
<tr>
<th>Improved planning and program integration will reduce time for acquisition</th>
<th>Engagement with stakeholders and prioritized use cases will streamline development</th>
<th>Target TSE acquisitions on more cost-efficient technologies to maximize ROI</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acquisition Time</strong></td>
<td><strong>Re-work</strong></td>
<td><strong>Costs</strong></td>
</tr>
<tr>
<td>Enable variability in screening by designing intelligent checkpoint &amp; expanding pre-screening capabilities</td>
<td>Acquire and deploy equipment that meets standards based on end-to-end engagement</td>
<td>Further engage vendors and R&amp;D centers to define and realize gains from cutting-edge technology</td>
</tr>
</tbody>
</table>

The TSE Segment Architecture will provide TSA a structure to develop new screening capabilities to further implement RBS reducing cost and increasing efficiencies.

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DRAFT
Targeted BAA Process
The targeted BAA process was designed to lighten the burden of the submission process on vendors and TSA while focusing submissions on near-term TSA needs.

**Targeted BAA Process Overview**

**Phase 1: Topic Identification (~1 month)**
- TSA Identifies Targeted BAA

**Phase 2: Solicitation (~2 months)**
- TSA Announces Targeted BAA and Applicants Submit 2-5 pp Concept Paper

**Phase 3: Feasibility Assessment (~1 month)**
- TSA Evaluates and Selects BAA Responses for Presentation

**Phase 4: Presentations (~1 month)**
- Offeror Presents Concept, SOW, and Price Estimate

**Phase 5: Concept Selection (~1 month)**
- TSA Evaluates Submission and Notifies Offeror

**Phase 6: Award (~3 months)**
- SOW is Finalized and Awarded

**Next Steps**

**FY14:**
- Finalize detailed timeline for the targeted BAA process
- Identify targeted BAA topics and select initial targeted BAA topic
- Coordinate with Office of Acquisitions to release initial targeted BAA topic – *Expected in late FY14*
- Conduct Industry Day to communicate targeted BAA topic and expectations
# Key Process Changes

<table>
<thead>
<tr>
<th>Attribute</th>
<th>TSIC BAA Process (<em>Previous</em>)</th>
<th>New BAA Process</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope</strong></td>
<td>Broad – one broad category seeking improvements related to security operations, technologies, processes, human-factors, and capabilities.</td>
<td>Focused and Broad – several specific categories describing well scoped projects seeking specific solutions with one “open” category</td>
</tr>
<tr>
<td>Responsibility for Scoping BAA Project</td>
<td>Offeror</td>
<td>TSA for focused categories and the offeror for the open category</td>
</tr>
<tr>
<td><strong>Initial Submittal Format</strong></td>
<td>12 page whitepaper or 28+ page full proposal</td>
<td>2-5 page concept paper</td>
</tr>
<tr>
<td><strong>Final Funding Decision Submittal</strong></td>
<td>28+ page technical proposal volume and cost volume</td>
<td>Oral presentation, SOW, and cost proposal</td>
</tr>
<tr>
<td><strong>Timing</strong></td>
<td>• Annual&lt;br&gt;• Offeror submissions reviewed as they come in without a specified time limit</td>
<td>• Semi-annual&lt;br&gt;• Offeror submissions reviewed on a regular 6 month schedule</td>
</tr>
<tr>
<td>Funding Decision Authority</td>
<td>PMO with support from MAD</td>
<td>Review Board (MAD, PMO, OSO, S&amp;T)</td>
</tr>
</tbody>
</table>
TSCAP
What is TSCAP?

TSCAP is an integrated process that improves TSA’s development of security capability operational requirements.

What does TSCAP do?

The Transportation Security Capability Analysis Process (TSCAP) is an integrated process that improves TSA’s development of security capability operational requirements.

What is an operational requirement?
A description of what the solution must provide in order to meet the mission need.

What is a capability?
A means to accomplish a mission, function, or objective (ex. Detect IED on person).

What is the value of TSCAP?

TSCAP combines the relevant drivers for requirements into a structured method and uses a suite of tools that allow for analytic rigor and smarter decision-making.

- Establishes a stronger connection between strategic objectives and requirements
  - E.g. RBS
- Improved requirements for industry to meet
  - E.g. ATR
- Clearer understanding of system functionality and the impact of one piece not working correctly
  - E.g. CAT

TSCAP will provide a structured, repeatable, transparent process to develop requirements and enhance TSA planning.
## Benefits of TSCAP

### TSCAP’s outputs generate new value for OSC:

**Holistic (Agency Level)**
- Conducted annually, across OSC and in conjunction with industry, to identify and prioritize gaps across the entire system and to determine requirements to close gaps

**Example:**
An annual refresh of the TSCAP capability gap assessment is performed. The cross-office effort recommends higher prioritization to programs that improve analysis of passenger behavior. Both SOP and technology options are recommended for further exploration. Annual briefing to industry will describe outputs.

**Program Level**
- Conducted in response to gaps or a specific driver to determine requirements for specific gaps

**Example:**
Taking emerging technology options and identified gaps into account, CTD explores possible options with industry that are analysed using TSCAP’s architecture and visualization tools and prioritized using Decision Lens.

**Specific Questions**
- Targeted analysis using TSCAP tools and data

**Example:**
Program teams or engineers executing a program need to revisit previous analyses to determine impact of changing initial assumptions or parameters.
Intel receives new information that homemade explosives (HME) concealed in checked bags are an emerging threat.

Phase 1: Establish the TSCAP Baseline
- Update threat list with reprioritization of HME explosives
- Measure checkpoint’s current state of performance

Phase 2: Identify and prioritize capability gaps
- Confirm with IPT that there is a gap in detecting HMEs in checked baggage

Phase 3: Generate Alternatives
- Determine each alternative’s impact on Trade Spaces
- Analyze each alternative’s impact on architecture
- Facilitate decision-making session to pick the best alternative

Phase 4: Analyze and Select Alternatives
- Document recommendation and preliminary analysis of alternatives for the program office
- Program office executes on procuring new technology

Phase 5/6: Document Operational Requirements & Handoff to Programs
Technology Harmonization
International Harmonization Overview

TSA is working with our international partners to mitigate credible threats to transportation, to streamline technology priorities, and to align detection standards and testing methodologies.

Benefits of Harmonization:

**Increases Security Effectiveness:** Improves global aviation security baseline by raising minimum system performance levels to more effectively and efficiently mitigate threats to transportation in the US and abroad

**Original Equipment Manufacturers (OEM) Efficiencies:** Reduces industry development timelines and costs by focusing limited resources on a common set of global market requirements

**Drives Innovation:** Incentivizes OEMs to become more innovative to distinguish product lines from competition (i.e. larger threat libraries, increase sensitivity, lower operating costs and increase reliability)

**Reduces Testing Burden:** Harmonized detection standards and testing methodologies will potentially reduce demand on US/EU test centers through reciprocity and limiting assessments to unique requirements

Technology harmonization will occur in phases over a number of years.

- A commensurate ETD detection standard was signed in April 2014 – Expected to be released through an ETD Industry Day in late FY14

### Harmonization Step (TSA-EC) vs. Technology

<table>
<thead>
<tr>
<th>Harmonization Step (TSA-EC)</th>
<th>ETD</th>
<th>AT/ACBS</th>
<th>BLS/LEDS</th>
<th>AIT/SS</th>
<th>EDS</th>
</tr>
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<tbody>
<tr>
<td>Information Exchange</td>
<td>🟢</td>
<td>🟢</td>
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<tr>
<td>Threat Comparison</td>
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<tr>
<td>Requirements/Specification</td>
<td>🟢</td>
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<tr>
<td>Common Testing Methodology</td>
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<td>🟢</td>
<td>(In progress)</td>
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<tr>
<td>Certification/Qualification/Approve for Use</td>
<td>(In progress)</td>
<td>(In progress)</td>
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</tbody>
</table>

**Interested in learning more?** Attend the *Opportunities for International Harmonization: Perspectives from TSA, CATSA and ECAC* roundtable on Wednesday, June 25th (1:45PM -3:15PM).
Questions
Aviation Checkpoint

Stacey Fitzmaurice
Division Director, Checkpoint Solutions & Integration (CSI)
Checkpoint Solutions & Integration (CSI)
Overview

- Ensure the most technologically efficient and effective capabilities are available for screening passengers and carry-on baggage.
- Perform planning and execution of acquisition, procurement and strategic planning activities for all checkpoint technologies.
- Manages and prepare equipment recapitalization plans.
- Ensure compliance with acquisition guidelines and policy.
- Oversee planning and execution of budget activities.
- Coordinate with DHS S&T on R&D and detection activities.

The Passenger Screening Program (PSP)

The Threat Assessment Capabilities (TAC)

Security Technology Integrated Program (STIP)
CSI Division Priorities

- **Aviation Threat Detection**
  - Accelerate development of technologies that increase passenger convenience by minimizing the divest requirements of screening systems.
  - Enhance the performance of explosive trace detection (ETD) systems.
  - Enhance and augment checkpoint imaging and x-ray technologies to improve detection, increase adaptability and improve the passenger experience.
  - Develop and deploy effective Credential Authentication Technology (CAT).

- **Real Time Threat Assessment**
  - Enhance canine threat detection capabilities and broaden their operational utility.
  - Identify and optimize the factors that impact human performance in the screening of passengers and baggage to improve TSO performance.
  - Broaden behavior-based detection capabilities, screening capabilities and technologies.

- **Integration and Flexibility**
  - Develop standardized technology platforms, interfaces and data formats.
  - Accelerate OSC’s Security Technology Integrated Program (STIP).
CSI plans and executes acquisition, procurement and strategic planning activities for checkpoint screening programs. CSI ensures the most technologically efficient and effective capabilities are available for screening passengers and carry-on baggage.

<table>
<thead>
<tr>
<th>Select CSI Capability Investments</th>
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<tbody>
<tr>
<td><strong>AT-2:</strong> Develop Tier II and Tier III.</td>
</tr>
<tr>
<td><strong>AIT:</strong> Procure AIT-2 systems in FY15; Develop Tier III.</td>
</tr>
<tr>
<td><strong>ETD:</strong> Procure additional ETD systems in late FY14. Establish new ETD contracts in FY15.</td>
</tr>
<tr>
<td><strong>BLS:</strong> Establish new BLS contracts in FY15.</td>
</tr>
<tr>
<td><strong>EMD:</strong> Begin recapitalization in FY15.</td>
</tr>
<tr>
<td><strong>Boarding Pass Scanners:</strong> Procure additional BPS in Summer 2014.</td>
</tr>
</tbody>
</table>
Risk Based Security Impacts on the Checkpoint

TSA’s Risk-Based Screening (RBS) initiatives are driving changes to checkpoint processes and technology needs, affecting the types and configuration of lanes and the quantities of both TSEs and FTEs required to operate the checkpoint.

- As TSA works to expand the numbers of travelers receiving expedited screening by the end of 2014, additional TSA Pre✓™ lanes are planned, reducing the number of standard lanes in operation. Technology needs differ between standard and TSA Pre✓™ lanes.
- TSA has established a working group to conduct predictive analysis of FOC numbers based on RBS goals, safety stock requirements, throughput capabilities, and lane configuration.

<table>
<thead>
<tr>
<th>Actions to Date</th>
<th>ETD Right Sizing effort</th>
<th>Multiple trial CONOPs</th>
<th>Analysis of airport drawings</th>
<th>RBS driven policy/procedure changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Result</td>
<td>Modified FOC numbers to align with the changing checkpoint environment</td>
<td>Revised PSP LCCE that aligns to RBS needs and goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Future</td>
<td>Automated Real-Time Risk-Based Dynamic Passenger Screening</td>
<td>Further Revisions to Technology FOCs</td>
<td></td>
<td></td>
</tr>
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</table>

<table>
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<th>AIT</th>
<th>AT2</th>
<th>BLS</th>
<th>ETD</th>
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<tr>
<td>930</td>
<td>2215</td>
<td>1660</td>
<td>2820</td>
<td>1450</td>
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</table>

*FOCs will be updated annually.
### CSI Industry Partnership Priorities

#### Transparency
- **Increase Visibility into Requirements Development and Lifecycle Processes**
  - Continue to share draft RFPs and Test Plans – early and often – and encourage input and comments from industry stakeholders.

#### Improving Test Readiness
- **Optimize Qualification Data Package (QDP) Requirements**
- **Incremental Test Strategies**
- **Bolster Developmental Testing**

#### Purposeful Innovation
- **Focus Innovation for a Constrained Budget Environment**
  - Set aside money for purposeful innovation
  - Support rapid prototyping and field trials
Questions
Advanced Surveillance Program

Robert Pryor
Division Director, Intermodal
Advanced Surveillance Program (ASP)

ASP Mission

The ASP improves the security of our Nation's transportation infrastructure by promoting enhanced surveillance capabilities and providing industry partners and agencies with expertise and knowledge related to surveillance methods that are effective and suitable.

ASP provides funding to transportation facility operators for enhanced surveillance infrastructure and capabilities to support TSA requirements for security of critical areas.

Surveillance systems funded by ASP provide TSA staff and their partners with clear, detailed real-time images of critical areas covering security incidents and supporting resolution of liability claims.

Key Points:

- 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; OTAs are not grants.
- The government gains access to systems supported by ASP funding.
Federal Security Director Feedback

"Having enhanced access to CCTV both at the checkpoints and in our baggage screening areas has proven to be a tremendous benefit to my overall screening operations."

— Michael Scott, AUS FSD

"The efforts of Ms. Lynn Sciascia and her team have helped strengthen our relationships and undoubtedly enhanced our security posture."

— Bill Switszer, STL FSD

"[The CCTV system] has proved invaluable and has allowed us to monitor incidents and even disprove passenger allegations which has kept us out of the national news."

— David Bassett, BDL FSD

Projects By Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Active</th>
<th>Completed</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category X</td>
<td>16</td>
<td>30</td>
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<tr>
<td>Category I</td>
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<td>Category II</td>
<td>1</td>
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<tr>
<td>Category III</td>
<td>1</td>
<td>4</td>
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<tr>
<td>Category IV</td>
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<tr>
<td>Total</td>
<td>31</td>
<td>84</td>
<td>115</td>
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Expended ASP ARRA OTA Funds

<table>
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<tr>
<th>Year</th>
<th>Funds Expended</th>
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<tbody>
<tr>
<td>Q2 FY14</td>
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</table>

Total Expended ASP OTA Funds

<table>
<thead>
<tr>
<th>Year</th>
<th>Funds Expended</th>
</tr>
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<tbody>
<tr>
<td>FY11:</td>
<td>$20M</td>
</tr>
<tr>
<td>FY12:</td>
<td>$42M</td>
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<tr>
<td>FY13:</td>
<td>$54M</td>
</tr>
<tr>
<td>Q2 FY14</td>
<td>$61,940,183</td>
</tr>
<tr>
<td>FY14 Q2</td>
<td>$178,042,030</td>
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<tr>
<td>FY11:</td>
<td>$85M</td>
</tr>
<tr>
<td>FY12:</td>
<td>$132M</td>
</tr>
<tr>
<td>FY13:</td>
<td>$164M</td>
</tr>
<tr>
<td>OTA Total</td>
<td>$280,668,698</td>
</tr>
</tbody>
</table>
**Examples of how ASP meets TSA Operational Needs**

**TSA Goal:** Protect the transportation system from dangerous people and items that threaten its security

### Current State:
A security incident delays operations, poses a significant threat, and increases costs to the transportation network.

- Security incident is detected
- No camera views or recordation available to TSA
- TSA alerts the LEO and search occurs with available information
- Terminal is evacuated
- Passengers are rescreened

### Future State:
ASP will allow TSA access to real-time images, facilitating information sharing and reducing the threat.

- Security incident is detected
- Camera views available to TSA
- LEO and TSA receive real-time image of threat
- Threat is more rapidly identified; no impact to passengers

**TSA Goal:** Manage risks to critical transportation infrastructure

### Current State:
Multiple camera views not located at critical checkpoints limits TSA's ability to react to new threats quickly.

- Typical transportation video system does not include TSA views
- Connects to security/video only network
- Facility limited digital recordation
- No video access available to TSA
- Facility owned remote video display
- TSO requests recorded views and delivers to Security Operations Center

### Future State:
ASP will provide TSA visibility to operations from a common security platform increasing situational awareness.

- TSA views added to existing airport-owned video system
- Connects to security/video only network
- Satisfies TSA recordation requirements
- Video access available to TSO
- TSA presence at facility monitoring center

**TSA Goal:** Strengthen TSA operations and management

### Current State:
Limited visibility into passenger throughput and screening activities causes significant delays to operations.

- Ticket counter queues
- No camera views or recordation available to TSA
- Checkpoint queue buildup
- Increased delays

### Future State:
ASP will provide TSOs visibility of passenger throughput to anticipate surge and allocate resources more quickly.

- Monitor ticket counter queues
- Camera views available to TSO
- Deploy TSOs as required more efficiently
- Reduced passenger delays
Examples of interoperability standards that can be included in future efforts:

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

- Physical Security Interoperability Alliance (PSIA)
  
  http://www.psialliance.org/
### ASP Projects by Category

<table>
<thead>
<tr>
<th>Category</th>
<th>Active</th>
<th>Both CP+CB</th>
<th>Only CP</th>
<th>Only CB</th>
<th>Completed</th>
<th>Both CP+CB</th>
<th>Only CP</th>
<th>Only CB</th>
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<td>8</td>
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<td>84</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>115</td>
</tr>
</tbody>
</table>

CP = Checkpoint  
CB = Baggage  
P = Perimeter
Air Cargo Security Technology Program

Robert Pryor
Division Director, Intermodal

Transportation Security Administration
• Air Cargo Security Technology Program (ACSTP) Overview
• ACSTP Key Initiatives
• Air Cargo Screening Qualification Test (ACSQT) background
• Air Cargo Screening Qualification Test (ACSQT) Process overview
• Air Cargo Screening Technology List (ACSTL)
• ACSTL Status – Version 9.0 (Release Date of 05/07/14)
• Air Cargo ETD Test Bed
• Air Cargo Research and Development Working Group (ACRDWG)
• Advanced Surveillance Program Update
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>
## ACSTP Key Initiatives

<table>
<thead>
<tr>
<th>Description</th>
<th>FY14 Activities</th>
</tr>
</thead>
</table>
| **Air Cargo Screening Qualification Test (ACSQT)** | • The ACSQT process involves the demonstration, verification, and validation that a candidate cargo screening technology meets established TSA requirements and standards. | • Approved 15 X-Ray, 4 ETD, and 1 EMD White papers. Currently Vetting for SSI and awaiting QDP Submissions  
• Evaluating 1 ETD whitepaper  
• Actively collecting field test data from 3 X-Rays and 1 ETD |
| **Innovative Technology Review Process (ITRP)** | • ITRP is a process for ACSTP to assess and evaluate innovative and emerging technologies that are still developing but not yet commercially available. | • Developing long term R&D Roadmap |
| **Supply Chain Integrity Technology (SCIT)** | • 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. | • Monitoring marketplace |
| **Data Analysis Reduction Team (DART)** | • DART processes and analyzes operational and technical data from regulated industry to streamline and integrate air cargo policy, procedures, and regulations. | • Continuing to collect data on air cargo operations and evolving landscape |
• Acts as the 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 190 devices and authorized 109 for inclusion on the list.

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

• TSA designed the ACSQT in order to provide ample submission opportunities, evaluation flexibility, and a workable test format.
## ACSTP Overview

<table>
<thead>
<tr>
<th>Process Area</th>
<th>Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Submission Process</td>
<td>• Allows for submissions anytime during the year, along with the opportunity to remediate shortfalls.</td>
</tr>
<tr>
<td>Evaluation Method</td>
<td>• Uses a customized qualification test process.</td>
</tr>
<tr>
<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>• 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>• Devices from an unknown manufacturer will be added based on a QDP review, a PCA, and a <strong>full evaluation</strong> at a TSA designated facility.</td>
</tr>
<tr>
<td>Test Format</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>
</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. Technology is eligible for use, but may be removed if testing is not successful; users buy the technology at the risk of it potentially being removed at a future date.

- **Grandfathered (no systems currently 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.**
ACSTL Status

(As of Version 9.0)

X-Ray

- **Qualified**: 80 X-Ray devices from 7 OEMs
  - 28 Capacity A systems, 29 Capacity B systems, 23 Capacity C systems
- **Approved**: 3 X-Ray devices from 2 OEMs
  - 2 Capacity A systems, 1 Capacity B system

Explosives Trace Detection

- **Qualified**: 3 ETD devices from 3 OEMs

Electronic Metal Detection

- **Qualified**: 6 EMD devices from 3 OEMs

Explosives Detection Systems

- **Qualified**: 15 EDS devices from 3 OEMs

---

1 See appendix for capacity descriptions
Air Cargo Data Analysis (DART)

Iterative data analysis process that informs decision-making to improve security within air cargo transportation

**Data**
- Current: Collect ETD testbed data from all participants
- Next Steps: Collect industry and test bed data from TSA regulated parties

**Insight**
- Analyze data to uncover potential algorithm improvements
- Begin forensic analysis on certain machines currently used in the field

**Action**
- Work with stakeholders to improve air cargo transportation security
The Air Cargo R&D Working Group (ACRDWG) will:

- Serve as the primary DHS/TSA vehicle for gathering sector-focused R&D Capability Gaps across aviation transportation security partners.

- Engage federal, state, local, and private sector stakeholders, including air carriers, freight forwarders, shippers, other TSA offices, DHS S&T, DOT and DOD.

- Capture and consolidate industry’s capability needs to inform DHS and TSA’s R&D.
Questions
Checked Baggage Technology Update

Rick Phillips
Division Director (Acting), Checked Baggage Technologies Division
Agenda

- EBSP Overview
- EBSP Key Priorities
- Recapitalization and Optimization
- PGDS Updates
- EDS-CP
- Key Initiatives Update
- Way Forward
EBSP is a mixed lifecycle acquisition program that identifies, tests, procures, deploys, and sustains equipment that detects concealed explosives in checked baggage. EBSP utilizes both Explosives Detection Systems (EDS) and Explosives Trace Detection (ETD) technologies for checked baggage screening.
The Electronic Baggage Screening Program (EBSP) is currently focused on a number of key priorities that will enable the program to flex with TSA’s mission and improve TSA’s ability to rapidly respond to emerging threats.

**Recapitalization & Optimization**
- Successful execution of recapitalization and optimization relies on visibility to, input from, and coordination with airports and Industry.
- Technical obsolescence, which is the inability to reach the next level of detection, will be a main driver for ranking future projects.

**EDS Competitive Procurement**
- EBSP’s rolling Qualified Products List (QPL) acquisition strategy provides an open opportunity for vendors to qualify EDS.
- TSA deployed its first EDS-CP unit in June 2013.
- TSA anticipates the award of Medium Speed EDS contracts before the end of FY14, and High Speed EDS contract(s) before the end of FY15.

**Detection Upgrades**
- TSA will complete EDS upgrades to the 2010 Detection Standard before the end of FY14.
- Original Equipment Manufacturers (OEMs) are working with TSA to develop algorithms for legacy and new EDS that meet the 2012 Detection Standard.

**Technology Initiatives**
- EBSP is in the process of developing a Risk-Based Security (RBS) strategy that aligns with the Agency’s priorities for risk based screening and leverages successes in Checkpoint
- Implementation of a Rapid Algorithm Development effort that can help the Agency rapidly respond to emerging threats.
Recapitalization and Optimization

**FY14 Projects and Future Project Selection**

In FY13, EBSP successfully obligated **30 Design OTAs** and **30 Facility Modification OTAs** across **38 airports**; significantly fewer OTAs are anticipated in FY14 due to funding needs to complete current projects.

**FY14 Projects**

- Approximately $78M has been budgeted for OTAs in FY14. This figure is subject to change based on cost validations and Office of Acquisition negotiations.

- EBSP planned to pursue two OTAs in 2014, with one OTA obligated to OGG in 13-Dec, and DEN outstanding.
  - While some airports were awarded Design OTAs in FY13, TSA will only pursue Facility Modification OTAs with those airports in FY14 if funding is available.
  - Airports will be notified accordingly.

**Future Projects**

- Funding for optimization efforts is only considered after cost effectiveness analysis is completed to 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.

- A Return on Investment (ROI) approach will be utilized in collaboration with airports to determine the cost effectiveness of optimization projects.
  - A positive ROI must be realized within 10 years to proceed with an optimization project without additional funding required from the airport.
  - Should an airport choose to pursue optimization instead of recapitalization, airports are responsible for covering all costs beyond the maximum amount TSA can pay.

*Operational deficiency will be the driver for future recapitalization and optimization projects.*
## Recapitulation and Optimization

### Airport and Industry Engagement

The majority of the initial recapitulation planning process is handled by TSA, 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 recapitulation, airports will be asked to participate in planning efforts, if necessary, and to facilitate a site visit for TSA-OSC and contractor personnel.

<table>
<thead>
<tr>
<th><strong>100% Funding</strong></th>
<th><strong>Cost Share</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>• TSA will pay for 100% of the allocable cost associated with recapitulation of equipment.</td>
<td>• Optimization efforts approved by TSA will include necessary cost share between TSA and the airport for allocable costs and the recapitulation cost.</td>
</tr>
<tr>
<td>• No cost share will be required from airports for recapitulation projects.</td>
<td>• Large and medium hub airports will be responsible for a 10% cost share of allowable costs, up to the not-to-exceed dollar value of each project.</td>
</tr>
<tr>
<td></td>
<td>• 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.</td>
</tr>
</tbody>
</table>
The Planning Guidelines and Design Standards version 4.2 was published on May 5th, 2014; some comments were addressed in the most recent version, with a more significant overhaul anticipated for Version 5.0, estimated for late CY2014 release.

**PUBLISHED PGDS v4.2**

- Public comments on Version 4.1 received from 9/15/2011 through 6/1/2012 and internal TSA stakeholders also provided inputs:
  - OSC Engineering generated 159 response documents addressing all industry changes and comments
- Stakeholders determined that a comprehensive evaluation of the PGDS is necessary prior to developing Version 5.0
- Intermediate Version 4.2 addressing near-term needs was published on 5/5/2014
  - Incorporates all industry comments that were accepted by TSA
  - New content added by TSA was reviewed by Industry prior to publication
- Appendix F was removed and published as a separate policy document addressing Checked Baggage Inspection System (CBIS) funding

**DEVELOPING PGDS v5.0**

- New forum established for collaboration between TSA and Industry on all future PGDS rewrites, starting with the significant update to PGDS Version 5.0
  - A PGDS Working Group comprised of Industry representatives and stakeholders has been formed and is meeting quarterly
  - A Technical Review Committee comprised of TSA stakeholders is currently being implemented to facilitate the update and management of the PGDS in coordination with industry partners
- Estimated release of PGDS Version 5.0 is the end of CY14
Vendors seeking entry to the Qualified Products List (QPL) should take note of the following recent changes:

**EDS-CP Rolling QPL Changes**

- Certification Readiness Testing (CRT) has been removed from the EDS certification process, which should save both TSA and vendors time and resources.
- 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**

- In June 2014, TSA announced that as of January 1, 2015, all EDS must meet the 7.2 detection standard to enter testing.
- 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.
  - Deployment of these upgrades are expected to begin in late FY14.

*Any EDS that is currently in the testing process (including Certification) can continue through the testing process; any EDS that has not yet entered Certification by January 1, 2015 must be compliant with the 7.2 detection standard.*
EBSP is currently supporting two key technical initiatives that will improve TSA’s overall security posture and ability to respond to emerging threats:

**Risk Based Security (RBS)**

In May 2014, TSA released its Transportation Security Strategic Capability Investment Plan, which offered a high-level overview of the program’s potential implementation of RBS for baggage screening. Key potential capabilities include:

- Enabling technology connected to Secure Flight that provides both credential authentication and retrieval of the passenger’s risk assessment in near-real-time;
- Networking of capabilities through the Security Technology Integrated Program (STIP);
- Optimization of existing solutions through the development of component technologies to “read” risk of bags in the BHS; and
- Enhancements to EDS that enable rapid adjustment of the security posture.

**Rapid Algorithm Development (RAD)**

EBSP is working closely with EDS vendors to implement a rapid algorithm development model, with vendors anticipated to develop and deliver a new algorithm within 10 weeks with a goal of <10% false alarm rates. Key objectives include:

- Establishing a model for rapid algorithm development that can be utilized for other technologies;
- Improving TSA’s ability to rapidly respond to emerging or immediate threats with new detection capabilities;
- Reducing existing development timeline and establishing a testing model that supports accelerated capability delivery.

*Both RBS and RAD will enable security agility for checked baggage screening and lay the foundation for future capability development.*
Way Forward
What’s Next for EBSP?

<table>
<thead>
<tr>
<th>RECAPITALIZATION &amp; OPTIMIZATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Efficient execution and close collaboration with airports, airlines, and the security industry is critical to the success of recapitalization and optimization projects.</td>
</tr>
<tr>
<td>• EBSP will continue working with airports that received both their Design and Facility Modification OTAs in FY13 to bring those projects to completion.</td>
</tr>
<tr>
<td>• Future recapitalization projects will be ranked on new criteria related to technical obsolescence. These projects will be initiated as funding is available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>DETECTION UPGRADES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Original Equipment Manufacturers (OEMs) are working with TSA to develop algorithms for legacy and new EDS that meet enhanced detection standards.</td>
</tr>
<tr>
<td>• All EDS must meet the 7.2 detection standard by January 1, 2015 to begin testing; EDS that cannot meet this standard cannot enter the certification process after January 1.</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>DETECTION UPGRADES</th>
</tr>
</thead>
<tbody>
<tr>
<td>• TSA anticipates the award of MSEDS contracts before the end of FY14 and HSEDS contracts before the end of FY15.</td>
</tr>
</tbody>
</table>
Test & Evaluation

Andy Lee
Division Director (Acting), Operational Support Division
Agenda

• Introduction / FY14 Goals and Objectives
• Test & Evaluation Challenges and Initiatives
• Vendor Collaboration
• Discussion of the Third Party Testing Concept
• Introduction of the Test & Evaluation Governance Board
• Other Current & On-going Efforts
• Participant Discussion and Q&A Session
As part of TSA’s goal of enhancing organizational efficiency, the Office of Security Capabilities is working to improve the execution of mission operations, with the intent of delivering capabilities to the field faster. Current Test & Evaluation processes are being examined and enhanced as part of this Agency-wide focus.

**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
- Establish more open coordination channels with industry, with the purpose of providing context and guidance beyond formal functional requirements documents
- Provide tools and processes to vendors and industry to facilitate more mature systems entering the TSA T&E Process
T&E Challenges

TSA OSC’s Operations Support Division has identified challenges across the Acquisition and Test & Evaluation lifecycle, yielding opportunities to enhance the method through which the organization works with industry to bring capabilities to the field.

**Pre-Test**
- Analysis of past T&E data to feed the requirements process and determine appropriate risk mitigation strategies
- Optimal Operational Test sites
- Evaluation of technology test readiness (QMP)
- Vendor collaboration & transparency

**Test & Evaluation**
- Strong collaboration and communication during T&E execution (both internally and externally)
- Configuration Management process improvement
- Clear external understanding of the TSA testing process

**Post-Test**
- Collaboration with vendors / data sharing for improved test preparation
- Implementation of policy covering new processes for response to test failures
## Initiative: Vendor Collaboration

<table>
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<th>Challenge</th>
<th>Solution</th>
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<tbody>
<tr>
<td>Clear external understanding of the TSA testing process</td>
<td>Ongoing revision of T&amp;E Process Guide</td>
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<td></td>
<td>Sharing of test plans and Communications SOP (over 80 documents shared to date)</td>
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<tr>
<td>Collaboration with vendors / data sharing for improved test preparation</td>
<td>Development of Vendor Communication SOP</td>
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<td>Improved tracking of document sharing</td>
</tr>
<tr>
<td>Evaluation of technology test readiness (QMP)</td>
<td>Revision / enhancement to management of process</td>
</tr>
<tr>
<td>Implementation of policy covering new processes for response to test failures</td>
<td>Development of possible incentives / penalties for inclusion in future contracts</td>
</tr>
<tr>
<td>Optimal Operational Test sites</td>
<td>Standing up permanent test sites</td>
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</table>
TSA plans to streamline the T&E process over the next 12 months using a two-phased approach that will introduce Third Party Testing (TPT) into the T&E Process.

**Phase 1- Require TPT to re-enter QT**

Limiting the total number of OEM attempts to clear QT to two (2) per Transportation Security Equipment (TSE) and after any significant failure, re-entering QT will be conditional upon the use of TPT.

**Phase 2- Use of TPT in Support of QDP**

Encouraging Original Equipment Manufacturers (OEMs) to use a Third Party Tester (TPTer) prior to submission of their QDP, resulting in a more mature TSE and a stronger and higher quality QDP.

**Results**

The efficiencies gained by OEMs adopting TPT can:
- Accelerate implementation of schedules
- Reduce procurement delays and time-to-market
- Improve return on investment and decrease overall cost of development
Third Party Testing business models:

<table>
<thead>
<tr>
<th>Trust But Verify</th>
<th>View, Witness, and Accept</th>
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</thead>
<tbody>
<tr>
<td><strong>Description:</strong> TPTers conduct the test and TSA verifies the test methodology and results against required QT test criteria</td>
<td><strong>Description:</strong> TSA has a representative present during TPT activities</td>
</tr>
<tr>
<td><strong>Benefit:</strong> Reduces TSA testing time in QT and the OEM’s reliance on TSA testing resources</td>
<td><strong>Benefit:</strong> Enables faster communication and feedback that can be used by the OEM to enhance technology development</td>
</tr>
</tbody>
</table>

**Evaluation Criteria and Acceptance Process:** Following the use of a Third Party Testing entity, the vendor will submit a data package for evaluation by TSA OSC

**Evaluation Factor Inputs**
- Was a 3rd party tester used?
- What certifications does the TPT have?
- Adequacy of the TPT test plan
- Results of the testing
- Statistical significance of the data
- Onsite validation of testing by TSA Representative

**Flexible Test Response**
- Full acceptance of test results
- Partial verification of test results
- Complete Retest

**Evaluation of Vendor data package to determine level of follow-up testing**
## Initiative: Establish Governance Board

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Solution</th>
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</thead>
<tbody>
<tr>
<td>Evaluation of technology test readiness</td>
<td>Establish a “Test Governance Board” to oversee all T&amp;E Strategy (details below)</td>
</tr>
<tr>
<td>Strong collaboration and communication during T&amp;E execution (both internally and externally)</td>
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<tr>
<td>Implementation of policy covering new processes for response to test failures</td>
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</tbody>
</table>

### Function of Board

The Board will accomplish its objectives by performing the following activities:

1. **Providing executive direction for OSC T&E strategies**
2. **Providing a forum to engage, consult, and ensure collaboration and consistent messaging**
3. **Ensuring OSC T&E activities and strategies meet overall TSA goals and initiatives**
4. **Providing direction on improvements to the OSC acquisition program test and evaluation process.**
5. **Overseeing and providing strategic direction to the work teams focused on OSC’s T&E strategic initiatives**
### Other Current & On-going Efforts

TSA OSC’s T&E FY14 Budget is approximately $50 million.

<table>
<thead>
<tr>
<th>Project/Initiative</th>
<th>Overview</th>
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<tbody>
<tr>
<td><strong>On-going Testing</strong></td>
<td>AIT-2, EDS-CP, AT-2, CAT, ETD</td>
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<tr>
<td></td>
<td>To date, TSIF has conducted 142 test events, 30 demonstrations, and 32</td>
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<td></td>
<td>tours since the beginning of FY14</td>
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<td></td>
<td>To date, completed 347 FAT and 359 SAT since the beginning of FY14</td>
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<tr>
<td><strong>RBS</strong></td>
<td>Passenger Screening Security Effectiveness</td>
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<td></td>
<td>Concept Exploration Testing</td>
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<tr>
<td><strong>T&amp;E Improvements</strong></td>
<td>TI&amp;O ISO Certification</td>
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<td>Test Article Program</td>
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<td>Test &amp; Evaluation Process Guide</td>
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<td>TEMNet</td>
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</tbody>
</table>
Acquisitions

Holly Hamilton Bolger
Division Director (Acting), Security Technology Acquisition Division
OSC has identified five strategic capability investment areas over the next five years:

- Aviation Threat Detection
- Real Time Threat Assessment
- Integration and Flexibility
- Systems Engineering and Governance
- Intermodal Threat Detection

OSC will manage its investment in capability development and innovation by balancing pioneering efforts with immediate capability demands, and plans to manage its portfolio of investments as follows:

- **70%** of investments targeting “**Core**” capabilities, addressing known threats and inefficiencies
- **20%** of investments targeting “**Adjacent**” capabilities, addressing emerging threats and creating new efficiencies
- **10%** of investments targeting “**Transformational**” capabilities, managing an integrated and dynamic system
OSC’s FY13 industry engagement spanned **20 industries across 388 unique entities located in 176 congressional districts in 41 states.** This included **81 original equipment manufacturers, 88 airport authorities, and 81 small businesses.**

OSC’s engagement spans a variety of industry types:
- **31%** Original Equipment Manufacturer
- **21%** Professional Services
- **15%** Airport Authorities
- **5%** Information Technology
- **28%** Other (e.g., Architecture Firms, R&D, Academic)

OSC Engagement by Program Area:
- **Mission Analysis:** 7%
- **Intermodal:** 17%
- **Deployment:** 3%
- **Checkpoint Technologies:** 19%
- **Checked Baggage Technologies:** 26%
- **Business Operations:** 4%
- **Centralized Operations:** 16%
- **Mission Support:** 8%

Engagement Purpose by Contractual Status:
- **System Upgrade:** 50%
- **Program Support:** 40%
- **Airport Design:** 30%
- **Testing and Evaluation:** 20%
- **Strategic Advising:** 10%
- **Outreach:** 0%
- **Market Research:** 0%
- **Capabilities Development:** 0%
- **PGDS:** 0%
- **Vendor Showcase:** 0%

OSC Engagement by Program Area:
- **Contractual:**
  - **System Upgrade:** 16%
  - **Program Support:** 21%
  - **Airport Design:** 15%
  - **Testing and Evaluation:** 15%
  - **Strategic Advising:** 10%
  - **Outreach:** 5%
  - **Market Research:** 4%
  - **Capabilities Development:** 2%
  - **PGDS:** 1%
  - **Vendor Showcase:** 0%

- **Non-Contractual:**
  - **System Upgrade:** 34%
  - **Program Support:** 26%
  - **Airport Design:** 15%
  - **Testing and Evaluation:** 9%
  - **Strategic Advising:** 2%
  - **Outreach:** 1%
  - **Market Research:** 1%
  - **Capabilities Development:** 1%
  - **PGDS:** 1%
  - **Vendor Showcase:** 0%
Transportation Security Deployment Services (TEDS – System Integration (SI) recompete)

Air Cargo, Intermodal, & Surface SI recompete

TSIF SI Support

EBSP Services (SPSS)

** RFI Release Date
** RFP Release Date
** Award

Note: Dates subject to change
### Components of TESS¹:

- TSIF Testing
- Acceptance Testing
- Operational Test & Evaluation (OT&E)

#### Bottle Liquid Scanner (BLS)

- Oct 2014 Industry Day
- New QPL opens

#### Explosive Trace Detector (ETD)

- Nov 2014 New QPL opens
- May 2015 New QPL opens

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¹ Each component is a separate action

Note: Dates subject to change

<table>
<thead>
<tr>
<th>Action</th>
<th>Date</th>
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</thead>
<tbody>
<tr>
<td>RFI Release Date</td>
<td>Jun 2014</td>
</tr>
<tr>
<td>RFI Release Date</td>
<td>Jul 2014</td>
</tr>
<tr>
<td>Award</td>
<td>Dec 2014</td>
</tr>
</tbody>
</table>

* RFI Release Date
* RFP Release Date
* Award
Ongoing Procurement Initiatives

- Focus on industry engagement
- Increasing the number of awards to small businesses
- 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
Deployment and Logistics

Peter McVey
Deputy Division Director, Deployment & Logistics
Agenda

- D&L Division Overview
- D&L Division Goals
- D&L Division Priorities
- Opportunities
- Questions
The Deployment Division deploys equipment for both Checkpoint and Checked Baggage programs. Deployment was created from CPTD and CBTD in order to consolidate expertise for deploying and integrating systems into the field.

Responsibilities:
- Coordinate across stakeholders for the deployment of technology to federalized airports
- Support checkpoint design
- Support integration and training of field operations with transportation security equipment
- Manage warehouse operations and logistics
- Coordinate logistics of TSE maintenance and repair

Checkpoint:
- Solutions engineering
- Program scheduling
- Requirements development
- Lifecycle cost estimates
- Funding and obligations management
- DT&E
- OT&E

Responsibilities:
- Program Scheduling
- Requirements Development
- Funding and Obligation Management
- DT&E
- OT&E
- Project prioritization
- Initial system design phases

Deployment and Logistics:
- Program Scheduling
- Requirements Development
- Lifecycle cost estimates
- Funding and obligations management
- DT&E
- OT&E
• Deployments are organized through three geographic regions: East, Central, and West.
• Deployment Coordinators (DC) manage the movement and installation of TSE
• Integration Coordinators (IC) manage the implementation and training of field operations

• Operations Branch supports acquisition and contract management functions, checkpoint design, and asset management
• Integrated Logistics Support (ILS) covers warranty and maintenance issues for TSE
D&L Division Goals

1. Improve Stakeholder Communications

<table>
<thead>
<tr>
<th>Accomplishments</th>
<th>Opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Enhanced Site Visit and Deployment Installation Coordination</td>
<td>• Increase end user awareness of upcoming TSA initiatives</td>
</tr>
<tr>
<td>• Conduct Lessons Learned to solicit input from the field and enhance Deployment processes</td>
<td>• Institutionalize knowledge gained from regular lessons learned conferences</td>
</tr>
<tr>
<td>• Initiated field surveys to solicit user input on key Deployment processes</td>
<td>• Use survey feedback to inform changes to Deployment processes</td>
</tr>
<tr>
<td>• Completed Checkpoint Design Guide (CDG) version 5.1 to update roles and responsibilities for equipment moves</td>
<td>• Enhance industry engagement around checkpoint design including working group sessions to cover changes and best practices</td>
</tr>
<tr>
<td>• Recently released an RFI seeking industry input for ways to improve maintenance contract competition</td>
<td>• CDG version 6.0 is expected by the end of the calendar year</td>
</tr>
</tbody>
</table>
## 2. Expedite Processes

### Accomplishments

- Working to merge AT and AIT movements to find efficiencies and minimize the disruption airport operations.
- Created an Integrated Master Schedule (IMS) provide schedule forecasting for enhanced stakeholder communication and Deployment Requirements Definition; currently used to support integrated checked baggage projects with the goal to roll out to other deployment technologies
- Established the Governance Board on a bi-weekly basis to unite the Deployment Division, Checked Baggage Technology Division (CBTD), and Office of Acquisition to present issues to the leadership for finalization of decisions regarding funding, scheduling/tracking, and project validity
  - Created a repeatable process that is currently being evaluated for rollout to other coordination teams
  - Obligation of over $600M in FY13 Facility Modification OTAs supporting Recapitalization efforts across 29 airports

### Opportunities

- Explore efficiencies with additional joint deployments of technologies
- Define enhanced coordination strategies for phasing Recap and Optimization projects
- Further adopt IMS tools for additional technologies
- Continue to use the Governance Board framework to expedite and inform management decisions and prevent program delays
## 3. Standardize Deployment Procedures

### Accomplishments

- Developed a Master Deployment Plan to display a comprehensive view of deployment schedules, risks, methodologies, statuses, and strategies for both Checkpoint and Checked Baggage technologies.
- Revised the Checkpoint Design Guide which establishes the design process, guidelines, and approval for checkpoint construction projects.
- Expanded Deployment Methodology Documentation to define and standardize processes for allocating and deploying specific technologies.

### Opportunities

- Further enhance the Master Deployment Plan with additional data and regular updates.
- Communicate Checkpoint Design Guide best practices with industry.
# D&L Division Priorities (Checkpoint)

<table>
<thead>
<tr>
<th></th>
<th>FY14 Q3</th>
<th>FY14 Q4</th>
<th>FY15 Q1</th>
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<tbody>
<tr>
<td><strong>BLS</strong></td>
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<tr>
<td>BLS Smiths Deployment</td>
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<td>BLS CEIA Reallocation</td>
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<td><strong>AT</strong></td>
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<tr>
<td>AT 550 Smiths Deployments</td>
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<td>AT Rapiscan Redeployments</td>
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<td><strong>ETD</strong></td>
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<td>560 Acquisition Redeployments</td>
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<td><strong>BPS</strong></td>
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<td>BPS Acquisition Redeployments</td>
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<td><strong>CAT</strong></td>
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<td>CAT Acquisition</td>
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<td><strong>Duress Alarms</strong></td>
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<td><strong>ETD/BLS Cabinet</strong></td>
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<td>Cabinet Deployment</td>
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<td>Smiths Full Capability</td>
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<tr>
<td>Rapiscan Full Capability</td>
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<td><strong>TIP/GR</strong></td>
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<tr>
<td>IGR for Remaining Airports</td>
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**Notes/Assumptions:**
- All timeline information is based on estimations and assumptions
- Planning Phase includes any design, construction, or scheduling requirements
- Execution Phase includes TSE movement, installation, and integration work
- AT Full Capability rollout timeline is driven by OSO
# D&L Division Priorities (Checked Baggage)

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<tr>
<th></th>
<th>FY14 Q3</th>
<th>FY14 Q4</th>
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<tr>
<td><strong>In-line Recap and Optimization</strong></td>
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<td>CTX-9800 SEIO</td>
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Questions