Approach

Methodology to strengthen international aviation security through collaboration

STRATEGIC PARTNERSHIPS
Built on strong ties with key EU Member States, EC, and ECAC

COMMON TESTING METHODOLOGY
Share test protocols to instill consistency amongst US/EU testing centers (threat bag sets, confidence factors, clutter levels, quality control, etc.)

TECHNOLOGY FIELDING
Rollout technical capability through planned recapitalization and EU legislation

INFORMATION EXCHANGE
Share classified/unclassified information (i.e. detection standards, Intel, best practices, lessons learned)

FORENSIC ANALYSIS
Comparative assessment of threat mitigation priorities and testing methodologies with a focus to align when strategically sound

DEFINED STANDARDS
Establish EC and TSA commensurate detection standards (ETD), (EDS), (EDCB)

Universal Approach employed across multiple Technology work streams.
Alignment of EU/US Timelines

The US and EU are driving toward common milestones of capability on different timeframes.

**Europe**
- **2010**: ✓ Rollout of Liquid Explosive Detection Systems (LEDS) Phase I Screening
- **2012**: ✓ Expanded Application of Advanced Imaging Technology (AIT)
- **2014**: ✓ Established EDS Standard 3.1/3.2
- **2016**: ✓ Deployment Explosive Detection Systems (EDS) for Cabin Baggage (EDSCB) Laptops/ Liquids in Bags
- **2018**: ✓ Deadline for Deploying EDS Standard 3.0

**United States**
- **2010**: ✓ Deployment of AT Automated Target Algorithms (ATR)
- **2012**: ✓ Expanded Application of AIT
- **2014**: ✓ Established EDS Standard 7.2
- **2016**: ✓ Field upgrade and deployment of EDS Standard 7.2 [i.e. Homemade Explosives (HMEs)]

Procurement and Rollout of Accessible Property Screening Systems (APSS)
Procurement and Rollout of Next Generation AIT Systems (i.e. Detection Standard 4.3)
Expanded Threat List and Focus on Smaller Threat Masses
Technology Work Streams

Coordination with TSA’s international partners aims to further align detection standards and their deployment deadlines for existing and future technology work streams.

**Current Technologies**

- Explosive Trace Detection
- Enhanced Metal Detectors
- Advanced Imaging Technology/Security Scanners
- Advanced Technology/Explosive Detection Scanners for Cabin Baggage (EDSCB)
- Explosive Detection Systems
- Bottled Liquid Scanners/Liquid Explosive Detection Systems (LEDS)

**Future Technologies**

- Explosive Detection System for Cargo
- Explosive Vapor Detection
- ?
Commensurate Opportunities

Through effective execution of the previously described approach, lessons learned can be applied to integral facets of aviation security including, but not limited to:

- **Threat Lists**: Substances, Concentrations, Density Ranges, Formulations, Characterization Data, etc.

- **Consistent Performance Requirements**: Probability of Detection, Probability of False Alarms, CONOPs (Laptops/ Liquids), etc.

- **Consistent Testing Protocols**: Detection Sets, False Alarm Sets, Confidence Levels, Quality Control, Threat Orientation, etc.

- **Consistent Reporting**: Certification/Approval letters, Reporting, vendor debriefings, Information Sharing with airports and End Users

- **Reciprocity**: Mutual acceptance of test results and identified procurement entrance criteria
Technology Overlap

<table>
<thead>
<tr>
<th>Not Commensurate</th>
<th>Moderately Commensurate</th>
<th>Highly Commensurate</th>
<th>Commensurate</th>
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<tbody>
<tr>
<td>Significant Differences in the threat list, threat quantities, testing methodologies</td>
<td>Few similarities in the threat list, threat quantities, testing methodologies</td>
<td>Significant similarities in the threat list, threat quantities, testing methodologies</td>
<td>Almost exactly the same threat list, threat quantities, testing methodologies</td>
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**Explosive Detection Systems**
- ✓ Commensurate Det. Stds:
  - US: Ver. 5.8/ EU Ver. 3.1
  - US: Ver. 7.2/ EU Ver. 3.2

**Explosive Trace Detection**
- ✓ Det. Stds: Commensurate
  - US: Ver. 6.2/ EU Ver. 1.0

**Carry-on Screening**
- ✓ Det. Stds: Commensurate
  - US: Ver. 4.5/ EU Ver. 1.0
- CTMs: Under Review

**Liquid Screening Technology**
- ✓ Det. Stds: Commensurate
  - US: Ver. 4.5/ EU Ver. 1.0

**Enhanced Metal Detectors**
- US/EU: Revisions ongoing

**Passenger Screening**
- ✓ Det. Stds: Commensurate
  - US: Ver. 4.1 Tier III/ EU Ver. 1.0

**KEY**
- Passengers Screening
- Explosive Detection Systems
- Explosive Trace Detection
- Carry-on Screening
- Liquid Screening Technology
- Enhanced Metal Detectors
- TBD
Next Steps

• Leverage strategic partnerships with key EU Member States to understand timelines for rolling out new aviation screening technology capabilities in the US and abroad
• Partner with ECAC through the Technical Taskforce and Technology Study Groups to share threat lists, threat masses, and common testing methodologies
• Work with EC, ECAC and EU Member States to expand TSA/EU databases of international classified detection standards, common testing methodologies, and test data (level 1, 2, 3 reports)
• Strengthen collaboration with EU industry representatives to drive innovative screening solutions and help forecast market and revenue streams
• Expanded focus on leveraging information sharing agreements with ASIA, Middle East, and Western Hemisphere partners to continue pushing next generation solutions
• Host and participate in US/EU test center exchanges to instill greater consistency in testing methodologies and common evaluation process