# AGENDA

**Tuesday, November 15, 2016 – Day 1**

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>7:30 AM</td>
<td>Check-in/Breakfast</td>
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<tr>
<td>8:30 AM</td>
<td>Welcoming Remarks – ALERT</td>
<td>Michael Silevitch</td>
<td>Northeastern University / ALERT</td>
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<tr>
<td>8:35 AM</td>
<td>Welcoming Remarks – Dean, College of Engineering</td>
<td>Nadine Aubry</td>
<td>Northeastern University</td>
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<tr>
<td>8:40 AM</td>
<td>Welcoming Remarks – DHS</td>
<td>Laura Parker</td>
<td>Department of Homeland Security</td>
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<tr>
<td>8:45 AM</td>
<td>Setting the Stage</td>
<td>Carl Crawford</td>
<td>Csuptwo, LLC</td>
</tr>
<tr>
<td>8:55 AM</td>
<td>Systems Architecture Activities</td>
<td>Keith Goll</td>
<td>TSA</td>
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<tr>
<td>9:25 AM</td>
<td>TSA Innovation Task Force</td>
<td>Mara Winn</td>
<td>TSA</td>
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<tr>
<td>9:50 AM</td>
<td>TSA Requirements Analysis Platform (TRAP)</td>
<td>John Morgan</td>
<td>General Dynamics</td>
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<tr>
<td>10:15 AM</td>
<td>UK Perspective on Checkpoint Screening</td>
<td>Ben Jones</td>
<td>U.K. Government</td>
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<tr>
<td>10:40 AM</td>
<td>Break</td>
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<tr>
<td>11:00 AM</td>
<td>EU Supported Security Research Activities</td>
<td>Paolo Salieri</td>
<td>European Commission</td>
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<tr>
<td>11:25 AM</td>
<td>Perspectives on Checkpoint Security: Airline, Vendor, Passenger, Terrorist</td>
<td>John O’Dwyer, Matthew Merzbacher, Jimmie Oxley</td>
<td>Delta Air Lines, Morpho Detection, University of Rhode Island</td>
</tr>
<tr>
<td>11:50 AM</td>
<td>Insights for Mobile Radiation Detector Adoption</td>
<td>Michael Egnoto</td>
<td>University of Maryland</td>
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</table>
## Awareness and Localization of Explosives-Related Threats (ALERT)

### A Department of Homeland Security Center of Excellence

<table>
<thead>
<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
<th>Affiliation</th>
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<tbody>
<tr>
<td>12:40 PM</td>
<td>Lunch</td>
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<tr>
<td>1:10 PM</td>
<td>The Importance Meta-Data</td>
<td>Malcolm Slaney</td>
<td>Google</td>
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<tr>
<td>1:35 PM</td>
<td>Scope, the Technical Challenges, and the Progress in Building Cognitive Computers</td>
<td>David Nahamoo</td>
<td>IBM Corporation</td>
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<tr>
<td>2:00 PM</td>
<td>Data Analytics in Medicine and Possible Application to Aviation Security</td>
<td>Homer Pien</td>
<td>Philips Research</td>
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<td>2:25 PM</td>
<td>Tribute to Richard Bijjani</td>
<td>Michael Ellenbogan</td>
<td>Evolv Technology</td>
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<tr>
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<td>Evolv's Products for the Checkpoint</td>
<td>Michael Ellenbogan</td>
<td>Evolv Technology</td>
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<td>Analogic's Checkpoint CT System</td>
<td>Steve Urchuk</td>
<td>Analogic Corporation</td>
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<td>3:20 PM</td>
<td>Break</td>
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<td>3:40 PM</td>
<td>IDSS's Checkpoint Scanner</td>
<td>Patricia Krall</td>
<td>Integrated Defense and Security Solutions (IDSS)</td>
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<tr>
<td>4:05 PM</td>
<td>X-Ray Diffraction Imaging – Achievements and Challenges</td>
<td>Jens-Peter Schloeka</td>
<td>Morpho Detection</td>
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<tr>
<td>4:15 PM</td>
<td>Prospects for Using Coherent X-Ray Scatter for Material Discrimination at a Checkpoint</td>
<td>Dan Strellis</td>
<td>Rapiscan Systems</td>
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<tr>
<td>4:25 PM</td>
<td>Fast and Reliable Bomb Threat Clearing of Civil Airplanes</td>
<td>Mircea Tudor</td>
<td>TUDOR Scan Tech SA</td>
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<tr>
<td>4:45 PM</td>
<td>Transdermal Optical Imaging: A New Frontier of Lie-Detection</td>
<td>Kang Lee</td>
<td>University of Toronto</td>
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<td>5:10 PM</td>
<td>Next Generation Screening Starts with the Eyes</td>
<td>Mark Handler</td>
<td>Converus</td>
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<td>5:35 PM</td>
<td>Deterrence: Is it Effective and How to Make it Better</td>
<td>Matthew Merzbacher</td>
<td>Morpho Detection</td>
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<tr>
<td>6:00 PM</td>
<td>Adjourn</td>
<td>Carl Crawford</td>
<td>Csuptwo, LLC</td>
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**Data Analytics**

**Vendor Systems**

**Behavioral Detection (Lying) and Deterrence**
**AGENDA**

**Wednesday, November 16, 2016 – Day 2**

<table>
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<tr>
<th>Time</th>
<th>Topic</th>
<th>Speaker</th>
<th>Affiliation</th>
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<tr>
<td>7:30 AM</td>
<td>Check-in/Breakfast</td>
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<tr>
<td>8:00 AM</td>
<td>Call to Order &amp; ADSA15 Discussion</td>
<td>Carl Crawford</td>
<td>Csuptwo, LLC</td>
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<tr>
<td>8:05 AM</td>
<td>DICOS 2A Status</td>
<td>Steve Skrzypkowiak</td>
<td>Global Systems Technologies</td>
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<td>8:10 AM</td>
<td>Adaptive automated threat recognition</td>
<td>Harry Martz</td>
<td>Lawrence Livermore National Laboratory</td>
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<tr>
<td>8:30 AM</td>
<td>Zero shot learning</td>
<td>Venkatesh Saligramama</td>
<td>Boston University</td>
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<td>8:50 AM</td>
<td>Accelerating certification testing by creating an ‘Instrument Mode’ construct and by avoiding Lorenz attractors</td>
<td>Lee Spanier</td>
<td>DHS - Transportation Security Laboratory</td>
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<td>9:10 AM</td>
<td>HME simulant development and validation</td>
<td>Robert Klueg</td>
<td>DHS - Transportation Security Laboratory</td>
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<td>9:30 AM</td>
<td>A Generalizable Radiography Algorithm Test Environment for NDE Applications</td>
<td>Andrew Wantuch</td>
<td>Sandia National Laboratory</td>
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<td>9:45 AM</td>
<td>Deep learning overview</td>
<td>Matthew Merzbacher</td>
<td>Morpho Detection</td>
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<td>10:25 AM</td>
<td>Estimation and Detection Information Tradeoff for X-Ray System Optimization</td>
<td>Jonathan Cushing</td>
<td>University of Arizona</td>
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<td>Time</td>
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<td>Integration of Bottled Liquid Scanners and Electronic Scanners in the Innovation Lanes</td>
<td>Pablo Prado</td>
<td>One Resonance Sensors</td>
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<tr>
<td>11:15 AM</td>
<td>AIT opportunities and challenges</td>
<td>Carey Rappaport</td>
<td>Northeastern University</td>
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<td>11:35 AM</td>
<td>Ray-Based Modeling for Material Characterization</td>
<td>Elizabeth Wig</td>
<td>Northeastern University</td>
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<td>AIT Algorithms</td>
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<td>11:50 AM</td>
<td>Safety Act - Specifics for Small Businesses and Academicians</td>
<td>David Paquette</td>
<td>Department of Homeland Security</td>
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<tr>
<td>12:00 PM</td>
<td>Trade-Offs to Increasing Security and Adding Checkpoints</td>
<td>John Mueller</td>
<td>Ohio State University</td>
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<td>12:25 PM</td>
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<td>Solving TSA's Problems Using an Exercise in War Gaming</td>
<td>Graeme Goldsworthy</td>
<td>Goldsworthy, Stolk &amp; Associates</td>
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<td>Diederik Stolk</td>
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<td>Trade-Offs and Solutions</td>
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<td>Photoacoustic Sensing of Explosives</td>
<td>Robert Haupt</td>
<td>MIT Lincoln Laboratory</td>
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<td>2:05 PM</td>
<td>Compton scatter imaging</td>
<td>Eric Miller</td>
<td>Tufts University</td>
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<td>Brian Tracey</td>
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<td>Emerging Hardware and Algorithms</td>
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<td>Attribute-Based Searching and 360° Surveillance Video</td>
<td>Cindy Fang</td>
<td>MIT Lincoln Laboratory</td>
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<td>CCTV+Video Analytics-Based Passenger Flow Management System</td>
<td>Shawn Dagg</td>
<td>Crowd Vision</td>
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<td>3:20 PM</td>
<td>M&amp;S/HD Animation (Ani-Sim) in Checkpoint Security Technology</td>
<td>Rodger Dickey</td>
<td>Global Systems Technologies</td>
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<td>Video Tracking of Passengers and Divested Objects</td>
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<tr>
<td>3:25 PM</td>
<td>Summary and next steps</td>
<td>Harry Martz</td>
<td>Lawrence Livermore National Laboratory</td>
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<td>Next Steps</td>
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<td>Closing Remarks</td>
<td>Michael Silevitch</td>
<td>Northeastern University /ALERT</td>
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<td>Closing Remarks</td>
<td>Laura Parker</td>
<td>Department of Homeland Security</td>
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