



ALERT
AWARENESS AND LOCALIZATION
OF EXPLOSIVES-RELATED THREATS

Awareness and Localization of Explosives-Related Threats (ALERT)

A Department of Homeland Security Center of Excellence

**Advanced Development for Security Applications (ADSA) Workshop 15:
Next Generation Screening Technologies and Processes for the Checkpoint**

November 15 - 16, 2016

17th Floor Event Space, East Village

(291 Saint Botolph Street, Boston, MA 02115)

Northeastern University, Boston, MA

AGENDA

Tuesday, November 15, 2016 – Day 1

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



Time	Topic	Speaker	Affiliation
12:15 PM	Adaptive Learning, Venue Protection and Experience at the Rio Olympics	Lisa Dolev	Qylur Security Systems, Inc.
12:40 PM	Lunch		
Data Analytics			
1:10 PM	The Importance Meta-Data	Malcolm Slaney	Google
1:35 PM	Scope, the Technical Challenges, and the Progress in Building Cognitive Computers	David Nahamoo	IBM Corporation
2:00 PM	Data Analytics in Medicine and Possible Application to Aviation Security	Homer Pien	Philips Research
Vendor Systems			
2:25 PM	Tribute to Richard Bijjani	Michael Ellenbogan	Evolv Technology
2:30 PM	Evolv's Products for the Checkpoint	Michael Ellenbogan	Evolv Technology
2:55 PM	Analogic's Checkpoint CT System	Steve Urchuk	Analogic Corporation
3:20 PM	Break		
3:40 PM	IDSS's Checkpoint Scanner	Patricia Krall	Integrated Defense and Security Solutions (IDSS)
4:05 PM	X-Ray Diffraction Imaging – Achievements and Challenges	Jens-Peter Schlomka	Morpho Detection
4:15 PM	Prospects for Using Coherent X-Ray Scatter for Material Discrimination at a Checkpoint	Dan Strellis	Rapiscan Systems
4:25 PM	Fast and Reliable Bomb Threat Clearing of Civil Airplanes	Mircea Tudor	TUDOR Scan Tech SA
Behavioral Detection (Lying) and Deterrence			
4:45 PM	Transdermal Optical Imaging: A New Frontier of Lie-Detection	Kang Lee	University of Toronto
5:10 PM	Next Generation Screening Starts with the Eyes	Mark Handler	Converus
5:35 PM	Deterrence: Is it Effective and How to Make it Better	Matthew Merzbacher	Morpho Detection
6:00 PM	Adjourn	Carl Crawford	Csuptwo, LLC



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AGENDA

Wednesday, November 16, 2016 – Day 2

Time	Topic	Speaker	Affiliation
7:30 AM	Check-in/Breakfast		
Introduction			
8:00 AM	Call to Order & ADSA15 Discussion	Carl Crawford	Csuptwo, LLC
8:05 AM	DICOS 2A Status	Steve Skrzypkowiak	Global Systems Technologies
Automated Threat Detection and Integrated Systems			
8:10 AM	Adaptive automated threat recognition	Harry Martz	Lawrence Livermore National Laboratory
8:30 AM	Zero shot learning	Venkatesh Saligrama	Boston University
8:50 AM	Accelerating certification testing by creating an 'Instrument Mode' construct and by avoiding Lorenz attractors	Lee Spanier	DHS - Transportation Security Laboratory
9:10 AM	HME simulant development and validation	Robert Klueg	DHS - Transportation Security Laboratory
9:30 AM	A Generalizable Radiography Algorithm Test Environment for NDE Applications	Andrew Wantuch	Sandia National Laboratory
9:45 AM	Deep learning overview	Matthew Merzbacher	Morpho Detection
10:05 AM	Break		
10:25 AM	Estimation and Detection Information Tradeoff for X-Ray System Optimization	Jonathan Cushing	University of Arizona



Time	Topic	Speaker	Affiliation
10:50 AM	Integration of Bottled Liquid Scanners and Electronic Scanners in the Innovation Lanes	Pablo Prado	One Resonance Sensors
AIT Algorithms			
11:15 AM	AIT opportunities and challenges	Carey Rappaport	Northeastern University
11:35 AM	Ray-Based Modeling for Material Characterization	Elizabeth Wig Mahdiar Sadeghi	Northeastern University
Trade-Offs and Solutions			
11:50 AM	Safety Act - Specifics for Small Businesses and Academicians	David Paquette	Department of Homeland Security
12:00 PM	Trade-Offs to Increasing Security and Adding Checkpoints	John Mueller	Ohio State University
12:25 PM	Lunch		
12:40 PM	Solving TSA's Problems Using an Exercise in War Gaming	Graeme Goldsworthy Diederik Stolk	Goldsworthy, Stolk & Associates
Emerging Hardware and Algorithms			
1:40 PM	Photoacoustic Sensing of Explosives	Robert Haupt	MIT Lincoln Laboratory
2:05 PM	Compton scatter imaging	Eric Miller Brian Tracey	Tufts University
Video Tracking of Passengers and Divested Objects			
2:30 PM	Attribute-Based Searching and 360° Surveillance Video	Cindy Fang	MIT Lincoln Laboratory
2:55 PM	CCTV+Video Analytics-Based Passenger Flow Management System	Shawn Dagg	Crowd Vision
3:20 PM	M&S/HD Animation (Ani-Sim) in Checkpoint Security Technology	Rodger Dickey	Global Systems Technologies
Next Steps			
3:25 PM	Summary and next steps	Harry Martz	Lawrence Livermore National Laboratory
Closing Remarks			
3:50 PM	Closing Remarks	Michael Silevitch	Northeastern University /ALERT
3:55 PM	Closing Remarks	Laura Parker	Department of Homeland Security
4:00 PM	Adjourn	Carl Crawford	Csuptwo, LLC