



Awareness and Localization of Explosives-Related Threats (ALERT)

*ALERT is supported by the Department of Homeland Security (DHS)  
Science and Technology (S&T) Directorate through the  
Office of University Programs (OUP)*

**Advanced Development for Security Applications (ADSA) Workshop 20:  
Design, Development, Testing, Deployment and Operation of Effective Systems**

May 15-16, 2019

Raytheon Amphitheater (Room 240), Egan Research Center  
(120 Forsyth Street, Boston, MA 02115)  
Northeastern University, Boston, MA

**AGENDA**

**Wednesday, May 15, 2019 - Day 1**

<b>Time</b>	<b>Topic</b>	<b>Speaker</b>	<b>Affiliation</b>
7:30 AM	<b>Check-in/Breakfast</b>		
8:30 AM	<b>Introductions</b>		
8:30 AM	Welcoming Remarks - ALERT	Michael Silevitch	Northeastern University / ALERT <i>Director</i>
8:30 AM	Welcoming Remarks	Jacqueline Isaacs	Northeastern University <i>Interim Dean of the College of Engineering</i>
8:35 AM	Welcoming Remarks	Laura Parker	Department of Homeland Security <i>Program Manager</i>
8:40 AM	Setting the Stage	Carl Crawford	Csuptwo <i>President</i>
8:55 AM	<b>TSA &amp; DHS Perspectives</b>		
8:55 AM	TSA Perspectives and Initiatives- introduction	Frank Cartwright	Transportation Security Administration <i>Branch Manager, Requirements &amp; Architecture Division</i>
9:20 AM	Checkpoint CT Roadmap	Frank Cartwright (on behalf of Jason Hull)	Transportation Security Administration <i>Branch Manager, Requirements &amp; Architecture Division</i>
9:40 AM	Innovation Task Force Update	Matt Gilkeson	Transportation Security Administration
10:05 AM	Apex Screening at Speed Core Capabilities	John Fortune	Department of Homeland Security <i>Program Manager, Apex Screening at Speed</i>
10:30 AM	<b>Break</b>		
11:00 AM	<b>Behavior</b>		
11:00 AM	Why and How Terrorists Change Tactics (Video Presentation)	Peter Krause	Boston College <i>Associate Professor</i>
11:25 AM	Ideological Motivations of Terrorism in the United States, 1970-2016	Erin Miller	University of Maryland <i>Program Manager, Global Terrorism Database</i>
11:50 AM	Mapping Social Media for Security Applications	Jacob Wilkin	Self

<b>Time</b>	<b>Topic</b>	<b>Speaker</b>	<b>Affiliation</b>
12:15 PM	<b>Lunch</b>		
1:30 PM	<b>Effectiveness</b>		
1:30 PM	Effectiveness Definition	Matthew Merzbacher	Smiths Detection <i>Director of Certification and Qualification</i>
2:00 PM	Defining Effectiveness of Evolv's Technologies and is 90/20 better than 20/1?	Michael Ellenbogan	Evolv Technology <i>CEO</i>
2:30 PM	On optimization of future aviation security checkpoints effectiveness	Ing. C.J. (Jaap) de Ruiter Harry Martz	TNO <i>Senior Specialist Detection and Security</i> Lawrence Livermore National Laboratory <i>Director for Non-destructive Characterization Institute</i>
2:55 PM	Medical Imaging Perspective on Effectiveness	Robert Nishikawa	University of Pittsburgh <i>Director, Imaging Research Division, Department of Radiology</i>
3:15 PM	<b>Centers of Excellence Return on Investment</b>		
3:15 PM	DHS Center of Excellence Effectiveness	Matthew Coats	DHS Office of University Programs (OUP) <i>Director of University Programs</i>
3:40 PM	Effectiveness Study of the COEs for OUP	Detlof Von Winterfeldt	University South California <i>Director, CREATE</i>
4:00 PM	OUP Priorities-past, present and future: A Personal Perspective	Matt Clark	DHS Office of University Programs (OUP) <i>Director of University Programs</i>
4:20 PM	<b>Break</b>		
4:45 PM	<b>Third Party Involvement</b>		
4:45 PM	Working with 3rd Parties	Matthew Merzbacher	Smiths Detection <i>Director of Certification and Qualification</i>
5:10 PM	L-3 Weapons Algorithm and Third Party Application Programming Interface	Jeff Stillson	L3 Communications <i>Senior Director of Machine Vision</i>
5:35 PM	Speeding up the BAA Process and the Involvement of Third Parties	Steve Wolff Peter Harris	Wolff Consulting Services - <i>President</i> Yankee Foxtrot - <i>President</i>
6:00 PM	<b>Adjourn</b>	Carl Crawford	Csuptwo <i>President</i>



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**Thursday, May 16, 2019 - Day 2**

<b>Time</b>	<b>Topic</b>	<b>Speaker</b>	<b>Affiliation</b>
7:30 AM	<b>Check-in/Breakfast</b>		
8:00 AM	Call to Order	Carl Crawford	Csuptwo <i>President</i>
8:05 AM	<b>Advanced Technology - II</b>		
8:05 AM	Update on Duke's Work on XRD and Other Topics	Joel Greenberg	Duke University <i>Associate Research Professor, ECE</i>
8:30 AM	Reinforcement Learning for Aviation Security Strategy	Brian Lewis	Noblis <i>Electrical Engineering Manager</i>
8:55 AM	Deep Learning for CT Image Processing	DongHye Ye	Marquette University <i>Associate Professor, ECE</i>
9:20 AM	<b>Break</b>		
9:50 AM	Test Design for Consumer and Producer Risk (Video Presentation)	David Anderson	European Commission <i>Scientific Officer</i>
10:15 AM	Rapiscan's Stationary CT System and the Use of XRD	Dan Strellis	Rapiscan Systems <i>Senior Director, R&amp;D</i>
10:40 AM	Why Purchase a Stationary Gantry CT Scanner and Why Purchase from a New Vendor?	Brian Gonzalez	Micro-X Ltd <i>Chief Imaging Scientist</i>
11:05 AM	The Airport Risk Assessment Model (ARAM): Increasing the Effectiveness of Airport Security Countermeasures	Natalie Heller	Pacific Northwest National Laboratory <i>Data Scientist</i>
11:30 AM	Video Tracking of Passengers and Divested Items at the Checkpoint: Concept of Operations	David Castanon	Boston University <i>Professor</i>
11:55 AM	Adaptive Automated Threat Detection - Results and Futures	David Castanon	Boston University <i>Professor</i>
12:20 PM	<b>Lunch</b>		

<b>Time</b>	<b>Topic</b>	<b>Speaker</b>	<b>Affiliation</b>
1:25 PM	<b>Other Venues</b>		
1:25 PM	School Safety	Jonathan Crawford	Bader Hillel Academy <i>Student</i>
1:50 PM	<b>TSA and Sandia Topics - Panel Discussion</b>		
1:50 PM	Collection and Annotation of Stream of Commerce Data for AI	Ron Molway	Transportation Security Administration <i>Program Manager and Systems Engineer</i>
	Algorithms & OPSL Update and the Integration of the Results from the DHS Kaggle Competition	Andrew Cox	Sandia National Lab <i>Systems Analyst</i>
		Yotam Margalit	Amir Neeman Consulting <i>Consultant</i>
2:35 PM	<b>Advanced Technology - III</b>		
2:35 PM	DICOS Update	Jean Johnson	National Electrical Manufacturers Association (NEMA) <i>Technical Program Manager</i>
2:55 PM	<b>Next Steps</b>		
2:55 PM	Summary and Next steps	Harry Martz	Lawrence Livermore National Laboratory <i>Associate Program Leader</i>
		Carl Crawford	Csuptwo <i>President</i>
		Suriyun Whitehead	Booz Allen Hamilton <i>Lead Associate</i>
3:50 PM	<b>Closing Remarks</b>		
3:50 PM	Closing Remarks	Michael Silevitch	Northeastern University / ALERT <i>Director</i>
3:55 PM	Closing Remarks	Laura Parker	Department of Homeland Security <i>Program Manager</i>
4:00 PM	<b>Adjourn</b>	Carl Crawford	Csuptwo <i>President</i>