



**Trace Explosives Sampling for Security Applications (TESSA) Workshop Series 02:
Fundamentals and Advances in Trace Sampling and Detection**

August 5, 2015
Raytheon (Room 240), Egan Research Center, Northeastern University
Boston, Massachusetts

AGENDA

Wednesday, August 5, 2015

8:00 - 8:30 AM **Check-In and Breakfast**

8:30 - 8:35 AM Welcome and Introduction by ALERT

Prof. Michael Silevitch,
Northeastern University

8:35 - 8:40 AM Welcome and Introduction by DHS

Laura Parker
Department of Homeland Security

8:40 - 8:50 AM Overview, Goals and Scope

Prof. Steve Beaudoin,
Purdue University

MODULE I: Creating Explosives Residues

8:50 - 9:20 AM Dry Transfer of Explosives

Richard Lareau,
Department of Homeland Security

9:20 - 9:50 AM Inkjet Printing of Explosives

Greg Gillen
NIST

9:50 - 10:20 AM Synthetic Thumb for Residue Creation

Matt Brookes
DSTL

10:20 - 10:45 AM **Break**

MODULE II: Fundamentals for Residue Detection

10:45 - 11:15 AM Dynamics of Explosives Residues

Melissa Sweat
Purdue University

11:15 - 11:45 AM Forces and Mechanics of Contact Sampling

Steve Beaudoin
Purdue University

11:45 - 12:15 PM Describing Roughness during Contact Sampling

Leonid Miroshnik
Purdue University

12:15 - 1:15 PM **Lunch**



ALERT

AWARENESS AND LOCALIZATION
OF EXPLOSIVES-RELATED THREATS

Awareness and Localization of Explosives-Related Threats (ALERT)

A Department of Homeland Security (DHS)

Center of Excellence (COE)

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| 1:15 - 1:45 PM | Pressure/Force Sensitive Sensing | Matt Staymates NIST |
| 1:45 – 2:15 PM | Open Source Crockmeter | Dave Atkinson PNNL |
| 2:15 – 2:45 PM | Break | |
| 2:45 -3:15 PM | Acoustic Insights of Explosives for Vapor Creation | Jeff Rhoads and Steve Beaudoin Purdue University |
| 3:15 – 3:45 PM | Orthogonal Sensors for Residue Vapors | Otto Gregory University of Rhode Island |
| 3:45 – 4:15 PM | Fluorescence-Based Sensing of Residues | Bill Euler University of Rhode Island |
| 4:15 – 5:00 PM | Reception | |