

Awareness and Localization of Explosives-Related Threats (ALERT) *A Department of Homeland Security Center of Excellence*

ADSA 13

3rd Party Involvement with ALERT

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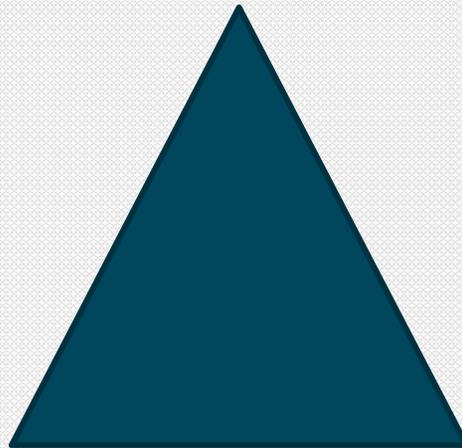
ALERT
AWARENESS AND LOCALIZATION
OF EXPLOSIVES-RELATED THREATS

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3rd Party = Researchers

Government
DHS, S&T, EXD



3rd Party
Researchers and
COEs (ALERT)

Security
Industry



So-What-Who-Cares about ALERT 3rd Party Involvement?

■ So What?

- ALERT is a Major Source of 3rd Party Involvement for EXD.
- ALERT Works in the Public Domain (non-SSI, non-Secure). All Program Results are Presented to the Public/Security Enterprise (presentation, publication, posters, , ,).
- ALERT Provides Research Data Sets (CT image, projection, instrument, and Real World Video) to 3rd Party Researchers.
- ALERT Has Learned How to Work with the Government, Security Industry and Users.

■ Who Cares?

- Everyone in the Explosives Detection Security Enterprise Cares



ALERT Has Learned to Work with Industry

- **We Live in an SSI, Security, ITAR, Proprietary, Secret Sauce World. Can You Navigate It?**
- **Every Company Is Jealous of Its Competitors**
- **Can You Work with One Company and Not Be/Look Preferential to Other Companies or to DHS, S&T, EXD, OUP?**
 - **No, But You Can Be as Fair as Possible, Listen and Adjust**
- **Data is King**



ALERT 3rd Party Involvement, 30 + Programs

- **ALERT is the Major Source of 3rd Party Involvement for S&T, EXD:**
- **Thrust R1 – Characterization & Elimination of Illicit Explosives**
 - 7 Projects involving 9 PIs and 6 Other Faculty
- **Thrust R2 – Trace & Vapor Sensors**
 - 10 Projects Involving 10 PIs and 8 Other Faculty
- **Thrust R3 – Bulk Sensors & Sensor Systems**
 - 6 Projects Involving 3 PIs and 12 Other Faculty
- **Thrust R4 – Video Analytics & Signature Analysis**
 - 10 Projects Involving 11 PIs and 6 Other Faculty



ALERT Other 3rd Party Involvement, 20 + Research Groups

- ALERT has Captured and Managed 6 Programs Involving More Than 20 non-ALERT 3rd Party Laboratories
- Segmentation of Objects from Volumetric CT Data (2011-2012)

- Funded 5 University and Industry Collaborators



- Reconstruction Advances in CT-Based Object Detection Systems (2012-2013)

- Funded 10 University and Industry Collaborators



- Advances in Automatic Threat Recognition CT-Based Object Detection Systems (2013-2014)

- Funded 8 University and Industry Collaborators.





ALERT Task Order 3rd Party Involvement

- In-the-exit and tag-and-track a Video Analytics System providing Value to Large Airports (2013-2015)

- Funded 4 University and Industry Collaborators



Transportation
Security
Administration



Rensselaer



SIEMENS

- Improved Millimeter Wave Radar AIT Characterization of Concealed Low-Contrast Body-Bourne Threats (2015-2017)

- Funding TBD University and Industry Collaborators

- Standardization of Procedures and Methodology to Measure Trace Explosives Sampling Efficiency and Baseline Performance

- Funding TBD University and Industry Collaborators

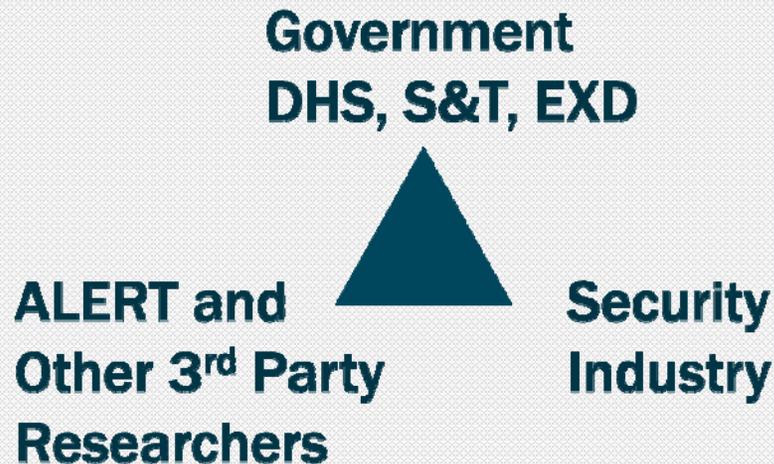


ALERT Works in the Public Domain

- **ALERT's Research is Conducted in the Non-SSI, and Non-Secret Domain**
 - Potential Sensitive or Secure Problems are/were address in the data sets and research, using simulants (rubber sheets), analogous situations and non- Security Tools (medical CT instrument).
 - ALERT Established Systems and Procedures to Protect 3rd Party Researchers from Presenting or Publishing SSI or Secret Data, or Research.
- **All 3rd Party Research under ALERT's Control is Published or Presented in the Public Domain.**



ALERT Works all Three Parties, Researchers, Security Industry, and Government



- ALERT is a 3rd Party Researchers and Works Easily with Other Researchers
- ALERT Works with All of the Security Industry
 - Knows Everyone
 - Works to Gets Everyone Involved
 - Has Built the Appropriate Safe Guards (MOU, NDA, Fire Walls, Information Protection Plan, Data Plan, , ,) for Industry
 - Provides Public Access to ALERT Research and Data
- ALERT Works Well with S&T, EXD and OUP