

### IDENTIFY, DETECT, MITIGATE

Explosives are a persistent and dynamic threat to the United States and its people. Our adversaries continue to adapt their tactics and we must remain vigilant, responsive, and proactive. The Department of Homeland Security (DHS) Science and Technology Directorate (S&T) Explosive Threats Assessment (ETA) Program's role is to provide the expertise to identify, assess, and characterize explosive threats in order to strengthen detection and enable the homeland to combat and mitigate threats.

### INTELLIGENCE-DRIVEN CHARACTERIZATION

The ETA Program fosters collaboration between S&T labs and external research partners to enable intelligence-driven characterization of explosives properties. The program provides a research path for explosive threat solutions, focused on material and performance data and ensuring that S&T explosives-related programs have all the data required for their programs' success.

### DEFENDABLE RISK ASSESSMENT

ETA facilitates the development of defensible risk assessment methodologies, including intelligence collection and analysis, threat prioritization reports, and consequence analysis tools. S&T components can then use these tools to identify and validate their explosive threat risk within their areas of responsibility.

### STRATEGIC VULNERABILITY MITIGATION

ETA provides support for programs tasked with developing measures to identify and mitigate vulnerabilities to explosive threats including operational testing and analysis, Airplane Modeling Capability, and Commercial Aircraft Vulnerability and Mitigation.



**Ballistic Pendulum Testing and Explosives Characterization; both are critical to the Explosives Threat Assessment mission.**

### RECENT SUCCESSES

- Delivered contiguous United States (CONUS) and outside CONUS explosive threat prioritization reports to DHS Transportation Security Administration (TSA);
- Submitted Material Assessment Reports to TSA for inclusion in new Detection Standards;
- Defined physical properties of emerging explosive threats and facilitated successful detection of homemade explosives; and
- Developed and enacted an analysis plan for experimental, statistical procedures for testing and delivered it to TSA red team to improve future testing.

### UPCOMING MILESTONES

- Complete a first version of an explosives consequence tool at the Unclassified level;
- Create a skeleton of a searchable repository of explosives test results from throughout the explosives community;
- Provide explosives performance data to S&T programs, enhancing existing modeling and computation tools; and
- Establish the roots of an enduring capability for explosives threat assessment providing relevant and complete data to S&T partners.