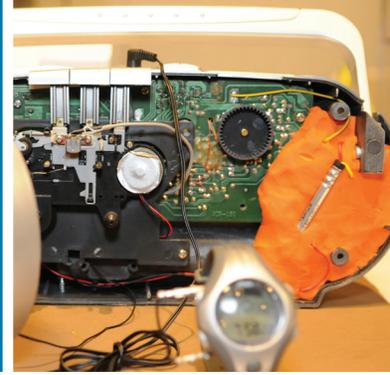


TRANSPORTATION SECURITY LABORATORY (TSL)



Location: Atlantic City, NJ

Core Competencies: Detection Science Expertise, Explosives Mitigation/Vulnerability Expertise, Test Articles/Test Phantoms, Test Standards and Methodologies, Small-Scale Safety Testing, Technology Assessment, Readiness Assistance, Certification/Qualification Testing, Special Operations Studies, and Rapid Response

Accreditations: Test and Evaluation of Contraband Detection Technologies for DHS; ISO 9001 and 17025 Accredited

Key Customers: DHS Science and Technology Directorate's Explosives Division, TSA, DoD

The Transportation Security Laboratory (TSL) is a national asset that supports the maturation of, evaluates, and certifies emerging explosives detection technologies. TSL helps the detection equipment industry meet performance requirements established by the Department of Homeland Security (DHS) and other customers. TSL also directly supports DHS acquisition through testing and evaluation. TSL addresses the following core competencies:

Explosives Detection Equipment Certification, Qualification, and Assessment Testing

- Conducts certification and qualification tests supporting the Transportation Security Administration's (TSA) acquisition of explosive detection systems for checkpoint, checked luggage, and cargo screening.
- Conducts special studies of identified explosive detection equipment to identify and correct detection vulnerabilities.
- Designs and executes laboratory test and evaluation protocols for emerging detection technologies.
- Develops test protocols and procedures for new TSA standards for checkpoint, checked baggage, and cargo detection technologies.

- Designs safety protocols for handling novel explosives needed to characterize detection capabilities.
- Designs and delivers test articles (explosive simulants, phantoms, and standards) to DHS, other government agencies, and industry.

Industry Partnerships

- Establishes cooperative research and development partnerships with industry to help mature and implement emerging explosives detection technologies, including automated threat detection, an enhanced advanced imaging technology, enhanced checked baggage and carry-on baggage explosive detection systems, and a new bottle screening technology for liquid explosives.

Next Generation Explosive Detection or Mitigation Technologies

- Determines aircraft vulnerabilities through live-fire range testing and develops and tests mitigation strategies.
- Creates databases of explosive signatures for industry and government use.
- Conducts specialized training on handling explosives.

Information and Innovation Products

TSL produces technical reports, presentations, external publications, and patents covering scientific and technical aspects of explosives and their detection. These products cover analytical laboratory methods and test and evaluation protocols relevant to explosives detection, novel analytical instrumentation, and new explosive simulants. Recent patents include:

- Inert and Non-Toxic Explosive Simulants and Method of Production (Patent 8563316)
- Ion Mobility Spectrometer to Mass Spectrometer Interface (Patent 8536518)

Contact

Questions? Email tslinfo@dhs.gov for more information.

