

Explosives Detection Capabilities



Hound



MicroHound

**Hand-portable
Explosives
Detection**



**Checking a vehicle
for explosives
using a prototype
vehicle portal**



**Walk-through
Personnel
Portal**

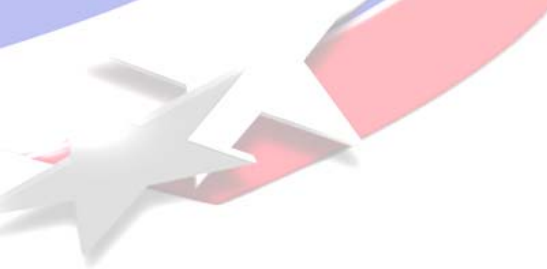
Description

The Contraband Detection Department at Sandia National Laboratories performs R&D, prototype development, and testing and evaluation in explosives detection systems. The team has emphasized sample collection and preconcentration technology to enhance detection capabilities by delivering a better sample to the detector.

Significant projects include:

- development of advanced prototype explosives trace detection systems, including:
 - a walk-through portal for people,
 - hand-portable explosives detection systems for packages (MicroHound and Hound), and
 - a movable vehicle portal.
- development of reference documents on explosives detection technologies for use by government agencies.
- testing and evaluation of explosives detection systems.

The group also contributes to the Explosives Defense Analysis Team (EDAT), which performs security evaluations of potential explosives threats at DOE sites. The EDAT makes recommendations to improve explosives protection based on the results of these studies.



Mission

Our mission is to deliver innovative real-world solutions to explosive detection needs by

- Identifying the problem,
- Developing and evaluating state-of-the-art systems, and
- Creating partnerships with research and engineering institutions and our customers

What We Do

We use our capabilities to

- Develop and design advanced prototypes for specialized applications
- Develop system solutions for the most challenging problems in explosives protection
- Consult with government agencies on how to create better explosives protection systems
- Test and evaluate explosives detection systems for specific customers
- Characterize explosives threats



Customers

Customers include the Department of Energy Security Office, the Transportation Security Administration, the Technical Support Working Group, the National Institute of Standards and Technology, the National Institute of Justice, the US Mint, and the Federal Bureau of Investigation.

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