



# EXPLORANIUM<sup>®</sup>

## ST-20 Radiation Portal Monitor

### Sensitive, accurate, and fast identification of nuclear threats

The challenge: scanning vehicles and cargo for nuclear materials without slowing the flow of traffic. The solution: the EXPLORANIUM ST-20 spectroscopic radiation portal monitor (RPM).

The ST-20 RPM identifies and locates nuclear material in cargo containers, trucks, railcars, and other vehicles in the normal flow of checkpoint traffic. By quickly distinguishing potential nuclear weapons material from likely benign sources, the ST-20 RPM can greatly reduce the need for manual inspections.

The ST-20 RPM meets the challenging ANSI N42.38-2006 nuclide identification and sensitivity standards for spectroscopic RPMs. In a single scan, the ST-20 RPM can sense extremely low levels of gamma and neutron radiation — with a false-alarm rate of better than 1:10,000 — and identify a wide variety of nuclides. Combining this outstanding performance with high throughput and efficient operation, the ST-20 RPM is ideal for border crossings, ports, and other transit facilities.

### BENEFITS

- ▶ Identifies nuclear threats
- ▶ High throughput
- ▶ High sensitivity
- ▶ Low false alarm rate
- ▶ Meets challenging ANSI standards
- ▶ Greatly reduces costly, time-consuming secondary inspections

## FOCUS ON NUCLEAR WEAPONS

The ST-20 is designed to scan for special nuclear materials (SNM) that could be used to create a nuclear weapon, and for commercial sources that could be used in a "dirty bomb." In compliance with the ANSI N42.38-2006 standard, the ST-20 identifies these materials even when they are heavily shielded or masked, and distinguishes SNM from medical isotopes.

## PRACTICAL OPERATION

The ST-20 RPM can greatly reduce the need for manual inspections by distinguishing potential weapons materials from likely benign sources, and can speed up manual inspections by showing the location of radioactive sources within the vehicle.

To help keep traffic flowing, the ST-20 RPM can scan vehicles in the normal flow of traffic at gates or other checkpoints. A single ST-20 supervisor workstation can control up to 32 RPMs. Easy-to-use operator software provides alarms, scanning displays, radiation measurements, vehicle images, and more. Scan data and images are integrated in the system database for easy access.

## LEIDOS — A WORLD LEADER

Leidos is a world leader in radiation detection technology, with thousands of installations for government and commercial clients around the world. Every system is available with our dedicated, world-class maintenance and technical support.

## CAPABILITIES

- ▶ Provides not just detection, but also isotope-level identification of radiological threats
- ▶ Detects SNM even when shielded or masked
- ▶ Meets applicable portions of ANSI performance standards
- ▶ Graphically displays the location of radioactive sources in scanned vehicles
- ▶ Scans vehicles in the typical flow of checkpoint traffic
- ▶ Low false alarm rate and high throughput allow use as a primary screening device

## OPTIONS

- ▶ Additional cameras for capturing additional vehicle images
- ▶ Additional detector panels for oversized vehicles

