



Bomb RadCheck™ Overview

- Bomb RadCheck is comprised of a Detection Unit (DU) with an ATS Radiological Sensor deployed on a remote operated vehicle (ROV) to investigate a suspect target item.
- The DU is mounted or attached to the ROV to provide threat assessment as the ROV approaches the target item.
- The RadCheck Server Lite and Incident Manager are deployed together on the same laptop for use by the Bomb Squad members.
- Bomb RadCheck can be fully integrated with Bomb RadWatch.

Automatic Targeted Spectroscopic™ Radiological Sensor

- The Automatic Targeted Spectroscopic (ATS) Radiological Sensor is capable of detecting Radiological Dispersal Devices (“dirty bombs”) and Radiological Exposure Devices (“silent bombs”), and distinguishing these malicious devices from acceptable radiation sources routinely found in any environment under surveillance.

Detection Unit

- The Detection Unit (DU) collects gross gamma counts and ATS gamma counts from the sensors, augments these with location and timing data and sends them to the RCS-Lite. The DU manages all encryption and communication to the RCS-Lite.
- The DU may be integrated with the ROV’s power, networking and location determination functionality, or it may be battery powered, determine location using onboard GPS and communicate via wireless network connection to the server.

RadCheck Server™ Lite

- The RadCheck Server Lite (RCS-Lite) simultaneously collects data from the DU, analyzes the “threat level” of the measurements based on background radiation determined from the location-based historical information and user defined criteria, and stores them in its database. This data is available to the RadCheck Monitor and other linked security systems.

RadCheck Monitor™

- The RadCheck Monitor (RCM) is dynamic software that displays the current color coded “threat level” information provided by the RCS-Lite. It provides complete radiological threat information, including visual and audio incident alerts, in real-time to the Bomb Squad members.

ATS Radiological Sensor

Spectroscopy: supports ATS detection
 Range: 610 m (3σ for 5 kCi Cs137)
 Volume: 0.1 L
 Physical Dimensions: 2” x 2” x 10”
 Weight: 2 lbs
 Operation Temperature: -40°C to +60°C

Detection Units

Supported Sensors:

MDI ATS Radiological sensor
 any CBRNe RS232 sensor

Spectroscopy: supports ATS detection
 GPS Accuracy: <6m (50%), <9m (90%)
 Connectivity: Wireless (GPRS, UHF Radio)
 Sampling Rate: 1 second
 Power: 12V battery (8+ hours)
 current: 272 mA
 Physical Dimensions: 10”x 8” x 1”
 Weight: 2 lbs
 Operation Temperature: -40°C to +60°C

RadCheck Server™ Lite

Processor: Pentium 4+, Pentium M+
 Hard Disk Space :
 software: 1 GB
 data storage: 10-100 GB
 RAM: 1 GB
 Operating System: Windows 2000, XP;
 Windows Server 2000, 2003; RedHat Linux
 7.0+; AIX; Solaris
 Database Technology: SQL Server, MySQL,
 PostgreSQL
 Bandwidth Required: 2 kbps
 Applications Installed: Relay Server, Data
 Manager, Location Manager, Database,
 RadCheck Manager

RadCheck Monitor

Processor: Pentium III+, Pentium M+
 Hard Disk Space: 50 MB
 RAM: 256 MB – 1 G
 Operating System: Windows 98, NT, 2000,
 XP; RedHat Linux 7.0+; AIX; Solaris

Patents pending in US, Canada and Europe