



Community RadWatch™ Overview

- Community RadWatch is comprised of Mobile Detection Units (DUs) with TAGS™ Radiological Sensors deployed in vehicles to form a dynamic Gamma Radiation Surveillance Network across an entire community.
- The Mobile DUs are deployed in a fleet of vehicles that provide significant coverage across the community.

Targeted Automatic Gamma Spectroscopy™ Radiological Sensor

- The Targeted Automatic Gamma Spectroscopy™ (TAGS) 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 Units (DUs) collect gross gamma counts and TAGS gamma counts from the sensors, augment these with location and timing data and send them to the RWS. The DU manages all encryption and communication to the RWS.
- The DUs utilize the vehicle’s power supply, determine location using onboard GPS and communicate via wireless network connection to the server.
- All DUs are ruggedized to endure vibrations and temperature extremes in a vehicle’s trunk.

RadWatch Server™

- The RadWatch Server (RWS) simultaneously collects data from all DUs in the network, 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 RadWatch Manager and other linked security systems.

RadWatch Manager™

- The RadWatch Manager (RWM) is dynamic, GIS-based software that graphically displays measurement, location, time, and color coded “threat level” information retrieved from the RWS. It provides complete radiological threat information, including visual and audio incident alerts, in real-time to operations, security and emergency staff.

TAGS Radiological Sensor

Spectroscopy: supports TAGS detection
 Range: 640 m (3σ for 5 kCi Cs137)
 Volume: 2 L
 Physical Dimensions: 4” x 4” x 19.5”
 Weight: 7.5 lbs
 Operation Temperature: -40°C to +60°C

Detection Units

Supported Sensors:

MDI TAGS Radiological sensor
 any CBRNe RS232 sensor

Spectroscopy: supports TAGS detection
 GPS Accuracy: <6m (50%), <9m (90%)
 Connectivity: Wireless (GPRS)
 Sampling Rate: 1 second
 Power: 12V DC (10.5V-16V, unregulated)
 current: 272 mA
 Physical Dimensions: 10”x 8” x 4”
 Weight: 12 lbs
 Operation Temperature: -40°C to +60°C

RadWatch Server

Processor: Xeon dual-core +
 RAM: 4 GB
 Hard Disk : 100+ GB
 Operating System: Windows Server 2003+;
 Debian Linux 6.0+
 Database Technology: MySQL, SQL Server,
 Oracle, DB2
 Bandwidth Required: +1 Mbps
 Applications Installed: Relay Server, Data
 Manager, Location Manager, Database

RadWatch Manager

Processor: 1+ GHz 32-bit or 64-bit
 RAM: 1 GB
 Operating System: Windows XP/7+
 Bandwidth Required: 128+ kbps

Patents pending in US, UK, Germany, France,
 Canada.

Patents granted in US(8,026,846); UK, Germany,
 France (1,692,672)