



## Portable RadWatch™ Overview

- Portable RadWatch is comprised of Mobile Detection Units (DUs) with ATS Radiological Sensors carried in bags (e.g. backpack, briefcase, luggage) to form a dynamic Gamma Radiation Surveillance Network over an area of interest.
- These Mobile DUs are carried by persons providing significant coverage across an area under surveillance while providing Command and Control real time situational awareness.
- Portable RadWatch is ideally suited for covert surveillance and discreet incident investigation, and provides effective Event or VIP security.
- Portable RadWatch is comprised of Mobile Detection Units (DUs) with ATS Radiological Sensors carried in bags (e.g. backpack, briefcase, luggage) to form a dynamic Gamma Radiation Surveillance Network over an area of interest.

## 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 Units (DUs) collect gross gamma counts and ATS 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 battery power, determine location using onboard GPS and communicate via wireless network connection to the server.

## RadWatch Server™

- The RadWatch Server (RWS) (or mobile RWS-Lite) 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.

## ATS Radiological Sensor

Spectroscopy: supports ATS detection  
 Range: 610 m (3 $\sigma$  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)  
 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

## RadWatch Server

Processor: Pentium 4+, Xeon  
 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: Oracle, DB2, SQL  
 Server, MySQL, PostgreSQL  
 Bandwidth Required: 1 Mbps  
 Applications Installed: Relay Server, Data  
 Manager, Location Manager, Database,  
 RadWatch Manager

## RadWatch Manager

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  
 Bandwidth Required: 52 kbps

*Patents pending in US, Canada and Europe*