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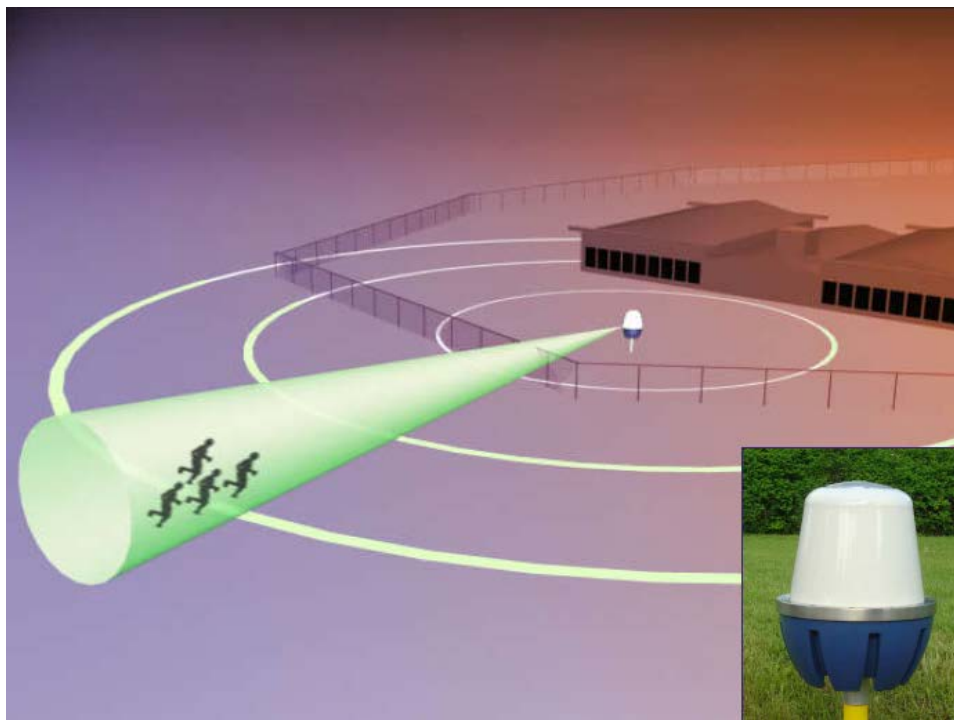
WG 800 Radar Site Surveillance System

The WG 800 Radar Site Surveillance System provides automatic perimeter security for large open spaces. The sensor detects moving or stationary objects appearing anywhere within a range of 10 metres up to 800 metres in all weather conditions and light levels.

A Single system covers up to 1.6km diameter.

It is a high performance 77GHz Millimetre Wave FMCW radar designed for continuous use in harsh environments.

The system is extremely rugged with built-in self-test, condition monitoring and calibration. The radar system constantly scans 360 degrees up to 800m once a second. The radar fills a volume of space in which detection data is processed every 25cm from the sensor out to the 800m instrumented range.



The radar not only detects and tracks intruders within the protected area but when integrated with CCTV surveillance systems will enable cameras to 'lock on' automatically to the target and track them visually on command & control screens. This intelligent assessment of the intruder threat is provided by Westminster's Site Security System.

Network enabled Surveillance Radar

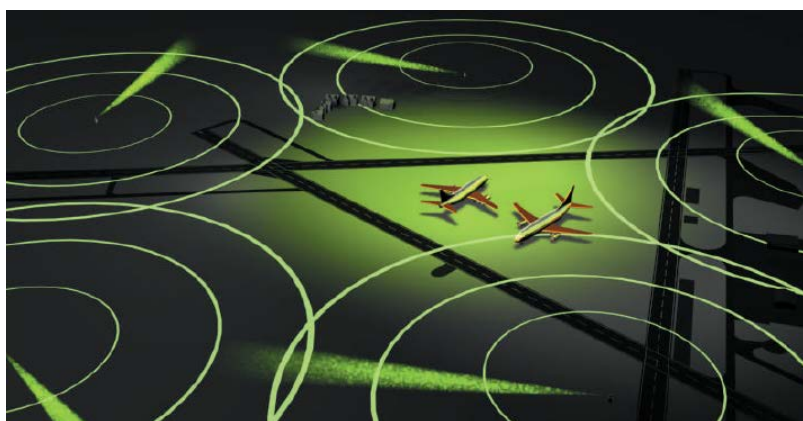
Multiple radar systems can be networked together to provide complete coverage of expansive sites. Using the Westminster Site Security System software and the WG 800 Surveillance radar, a complete multi-sensor intruder detection system can be realised.

Key Benefits

- 360 degree coverage;
- Available for temporary or permanent installation
- Battery operation optional
- Built-in self-test, condition monitoring and calibration
- Compact, low cost radar surveillance
- Continuous tracking of target allows intelligent assessment of intruder threat
- Effective in all weather and light conditions
- Enhanced site security
- Ethernet interface
- High range and azimuth resolution for excellent object detection
- Low cost and rapid installation
- Low radiated power
- Single unit covers up to 1.6km diameter



WG Site Security System



The WG Site Security System is designed to provide automatic perimeter security for government establishments, military bases, embassies, airports, ports, large industrial sites, and other high value installations.

The entire perimeter and internal area can be monitored from a single central control and display unit. With the addition of the CCTV interface, targets can be automatically tracked and viewed without any user interaction.

The site security system processes data from the WG 800 Surveillance Radar. It constantly scans a full 360 degrees across the entire designated area monitoring stationary and moving targets from 10 metres up to a range of 800 metres from each sensor, in all weather and light conditions.

If objects are detected in the pre-programmed alarm zones, the system will command the CCTV to focus on those threats. The system is capable of detecting multiple intruders in different areas simultaneously and can be configured to trigger audible alarms or activate other security equipment. With fully automated detection capability, the system removes any possibility of human error.

WG Site Security System Key Benefits

- Activates alarms or other security equipment
- Continuous tracking of target allows intelligent assessment of intruder threat
- Detects multiple intruders in different areas simultaneously
- Effective in all light and weather conditions
- Enhanced site security
- Indispensable where other security systems are not practical e.g. over water
- Installation is rapid and low cost and can be used for temporary or permanent applications
- Manned patrols can be reduced or eliminated
- Reduced manpower costs as only one person is required to supervise operations
- Simple and easy to understand display of all detection data can be overlaid onto the site map
- Very difficult to evade



WG Site Security System Features

- Able to calculate heading, position and velocity of intruders and plots their track
- Assignment of detection zones, providing different levels of alarm in sensitive areas
- Assignment of non-critical zones to allow for normal site operation
- Automatically compensates for background changes to the environment e.g. moving trees, grass
- Configurable to identify objects above a given size so that irrelevant background movements are filtered out
- Detects small objects including a walking, crouching or crawling person
- Directs a CCTV camera to a detected threat and automatically controls the camera to follow the threat in head/shoulders or wide area settings
- Discriminates between threats and background clutter based on heading, speed and geographical area
- Overlays a detected intruder position on a background map or aerial photograph of the area
- Provides a record of movements over time across the entire survey area, or it can focus on specific areas, for example the walkways between buildings
- Records AVI files and raw data sets or screen shot bitmaps
- Selectable zones of interest to display in the field of view

Technical Specifications

Max range	800m	800m
Range resolution	0.25m	0.25m
Measurement rate	850 per second	850 per second
Target false alarm rate	1 per 24 hours	1 per 24 hours
Detect/track man walking	10-500 meters line-of-sight	0-700 meters line-of-sight
Detect/track man running	10-450 meters	10-600 meters
Detect person crawling (hands and knees)	10-300 meters	10-400 meters
Detect person crawling (low profile)	10-175m	10-250m
Scanner field of view	360 degrees	360 degrees
Scan speed	1.0 Hz	1.0 Hz
Interfaces	100 MB Ethernet	100 MB Ethernet
Supply voltage	+24V nominal (12-36v)	+24V nominal (12-36v)
Power consumption	22W	22W
Environmental	IP66, NEMA-4X	IP66, NEMA-4X
Temperature	-20 to 60 degrees C	-20 to 60 degrees C