SENSOR TECHNOLOGIES & SYSTEMS, INC.

PSRS

Perimeter Surveillance Radar System

PURPOSE/ OBJECTIVES

The purpose of the Perimeter Surveillance Radar System is to provide automated perimeter security for encampments, installations, equipment, and other high value permanent and temporary sites. The PSRS is designed for deployment in multiple arrays with continuous overlapping coverage to monitor or secure a designated area.

DESCRIPTION

The perimeter Surveillance Radar System (PSRS) is a portable, low cost system consisting of one or more remotely stationed radar sensors networked to a central control and display unit. The PSRS has all weather, all light-level capability and can detect either moving or stationary targets. It is a low power continuous scan microwave radar sensor. Due to its small size and lightweight nature, it is easily transported and set up. The PSRS can be configured for either temporary or permanent installations.

Features of the PSRS system:

- Portable low cost radar surveillance system
- Light weight for one-man carry (Sensor Unit 40 lbs., Battery Unit & Support Assembly 44 lbs.)
- Rapid deployment (20 minutes from unpack to operation)
- Millimeter wave high resolution radar technology with 360º coverage in azimuth
- Low effective radiated power, poses no threat to human exposure and reduces potential interference with other systems
- High azimuth angular resolution for improved intrusion recognition
- High range resolution for improved intrusion recognition (0.5 meters)
- Scan rates up to one revolution per second
- Field configurable masking zones, both in angle (0º - 360º) and range (10-320 meters)
- Multiple range zone coverage; insert can be varied to eliminate warnings from non-secure areas – roads, irregular shaped areas, etc.
- Battery backup for 6-8 hours operation (depending on temperature)
- Capable of detecting a walking person out to 300 meters
- Capable of detecting vehicles out to 300 meters
- Simple, easy to understand presentation of sensor data (visual and/or audio)
- Can be deployed in temporary or permanent locations
- GPS for automatic sensor placement reporting
- Optional solar recharging system

Call your STS Representative today to find out more about this product and others.
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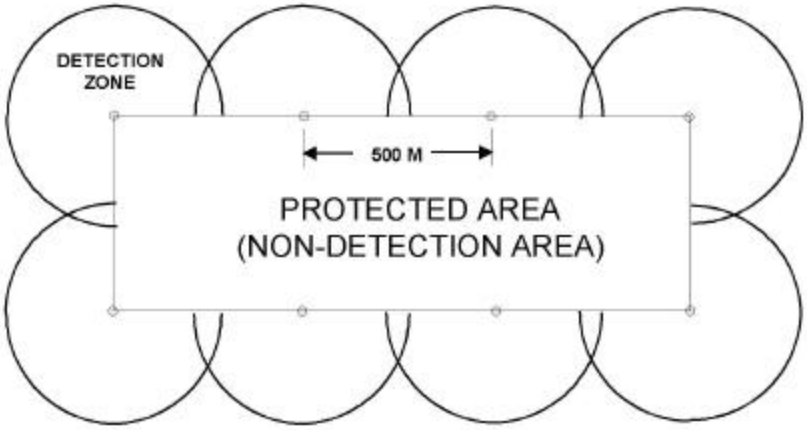

Typical System Implementation

PSRS SPECIFICATIONS AND CHARACTERISTICS

Target types	Moving/stationary; vehicles/personnel
Detection Zone, Personnel Running	10 - 250 meters
Detection Zone, Personnel Walking	10 - 300 meters
Detection Zone, Personnel Crawling (hands & knees)	10 - 125 meters
Detection Zone, Personnel Crawling (low profile)	10 - 100 meters for short grass
Detection Zone, Vehicles	10 - 250 meters
Maximum Operating Range	360 meters
Minimum Range, Personnel and Vehicles	10 meters
Masking Zone	0º to 360º and 0 to 350 meters operator selectable
False Alarm Rate Goal	Less than 3 per 24 hours
Scan Rate	1 revolution per second
Weight Sensor Unit	18 kg (40 pounds)
Battery Unit (1 internal battery)	15 kg (32 pounds)
Support Assembly	5.6 kg (12 pounds)
Size of Sensor, Battery and Support Assembly	15w x 15d x 35h inches
Input Power of Sensor Module	11 to 18 VDC, 30 watts
Outputs	Direction / location of intruder
Communications	Dedicated short range (RS-485 or wireless)
ENVIRONMENTAL	
Temperature	-30º to +60º C operating, -40º to +100ºC storage
Humidity (%)	0% to 90% non-condensing (60º C max)
Altitude (feet above sea level)	-500 to +14,000 operating, –500 to +40,000 storage
Vibration (grms)	Shaped random, 10 to 1000 Hz One hour in each axis (aprox. 4.3 grms)
Shock (g)	20 g peak for 20 ms, half sine
Wind (mph)	60 max
Container seal	Sealed against precipitation, mud, etc.

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