AT PSR Perimeter Security Radar

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AT PSR Features

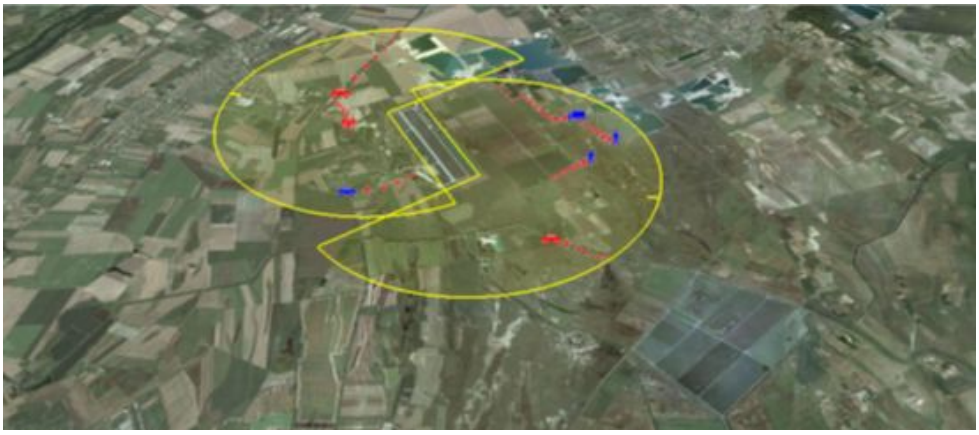
- Intercepting, Detecting and Following targets
- Classify and Differentiate targets on digital map
- Clutter Map
- Spot Window
- Doppler Audio Channel
- Manual Target Filter Setting
- Automatic Alarm by Zone
- Two level BITE
- Built in GPS and Compass
- Continuous recording of all measurements
- Networkable sensors
- Local or remote control
- Rapid training to proficiency
- Low probability of intercept
- Extremely reliable

AT PSR Applications

- Industrial facilities
- Strategic Depots
- Airports
- Refineries
- Military Compounds
- Power Stations
- Ports & Harbours
- Mine Sites
- Secure storage facilities

AT Communication ©

The AT PSR is predominantly applied in – but not restricted to – perimeter control and facility protection as standalone un or in a system of more radars around the object to be protected.



Continuous wide area surveillance of industrial facilities, strategic depots, airports, refineries and other sensitive areas rank among today’s major challenges. While performing these tasks, AT PSR detects and classifies moving targets whether they are moving in a usual open manner or with the adverse intention of remaining hidden and undetected – like e.g. crawling persons. Due to its high resolution, AT PSR's performance in separating slow moving targets from tationary surroundings is much better than with common-use radars.

The AT PSR can be deployed as fixed installation on walls, towers, buildings, etc. distanced even many kilometres away from the operator, and can be fully remote-controlled from the command centre.

In mobile platform applications AT PSR is assembled on a vehicle alone or together with an electro-optical head consistin of daylight camera, infrared camera and laser range finder.

Due its low power consumption and compact design AT PSR also can be used as man-portable radar to cover areas hardly approachable by vehicles. Low-level radiated power does not jam the communication of other devices and poses r health hazard.

Integration of AT PSR into complex security systems via its control software reduces the cost and amount of manpower needed, and minimises the negative impact of human factors such as fatigue and negligence. AT PSR is very efficient in sorting and highlighting potential threats - e.g. by means of controlling slew-to-cue tasks of camera systems.

The radar can be easily connected to any existing security system, increasing its effectiveness and reducing its response time. All data processed by the radar - in addition to being displayed locally can be forwarded to a control station for remote use.

AT PSR fits excellently into AT FMCW radar series. The AT PSR looks identical to the AT PGSR. During operation they can be easily distinguished; the AT PSR is rotating and scanning at high speed - as required by its scope of duties. This high scan rate yields higher level of situational awareness that is a key requirement when securing wide and near-field areas.

Signal processing algorithms and graphical user interface applications of the AT PSR provide information as combination of text, video and audio signals in an easily understandable format. This results also in very short training time for operators and in requiring no specific previous knowledge in radar technology or electronics.

Integrated GPS unit and Compass provide accurate reference data for determining target position and direction. AT PSR handles different coordinate systems and displays digital maps of the surveillance area. Data of detected targets, includin geo-position, velocity, direction of moving, etc. as well as target trajectories are continuously updated and displayed. Detected targets are automatically classified into different target classes according to their physical and radar characteristics. Classified targets are displayed as icons referring to target type, providing an at-a-glance visual report on the surveillance area. If required, the operator can switch from automatic to manual target classification.

AT PSR Perimeter Security Radar - Specifications

Typical Detection Range	Crawling persons: 650 m (RCS 0.1 m²) Walking persons: 1 500 m (RCS 0.5 m²) Vehicles: 3000 m (RCS 5 m²)
Scanning Modes	Azimuth sector scan (6° − 346°) Continuous rotation (n x 360°)
Scan Rate	30°/sec
Target Location Accuracy	Range: 2 m Azimuth: ≤ 0.5°
Minimum Detectable Radial Velocity	0.3 m/s
Target Classification	Automatic
Operating principle	FMCW Doppler
Max. Transmitted Power	200 mW
Data/Control Interface	RS-485, WIFI, Ethernet
Radar Power Supply	22 − 33 V DC, 40 W
Weight of Radar Unit	12.5 kg
Radar Unit Size	69 x 47 x 13 cm
Temperature Ranges	Operation: -32°C to +50°C Storage: -40°C to +60°C
MTBF	> 10 000 hrs

AT PSR Perimeter Security Radar - Surveillance Radar