

TECHNICAL DATA SHEET

HARRIER Security Radars

Border Surveillance Radar Systems

- Model number:** SS200 BSR (Border Security Radar)
- Functionality:** Supports single- or multi-function real-time airspace, coastal &/or ground surveillance with user-definable perimeter & zone intrusion alerting
- Configuration:** Available in fixed or fully self-contained mobile (trailer, truck or towered) configurations as single units or linear networks
- Radar sensor:** 200 w solid-state S- or X-band radar sensors options with 50,000 hour MTBF & all weather detection; dual X-S band systems available; 2D & 3D surveillance designs with Frequency diversity & Doppler signal processing
- Features:** Target-of-interest options include size class, speed & actual/predictive headings with target trails
- Multi-function capable for simultaneous airspace, marine & ground surveillance from a single radar sensor
- Ancillary equipment integration with FLIR, video, thermal & acoustic sensors with HARRIER SDK for third party interfaces & displays
- Supports multi-unit linear networks
- Applications:** Detection of airborne, marine or ground-based intruders*:
- Aircraft to 30 nm (55 km)
 - Ultralights to 14 nm (26 km)
 - UAVs to 5 nm (9 km)
 - Micro UAVs to 2 nm (3.7 km)
 - Small vessels to 5 nm (9 km)
 - Ground vehicles to 8 nm (14.8 km)
 - Pedestrians to 5 nm (10 km)
- Network:** TCP/IP supports multi-user remote system display and control via fiber optic, wireless or cellular links



Upper photo: Mobile HARRIER BSR dual ground-air surveillance radar system installation in western US desert; includes radar directed slew-to-track long range day-night camera unit.

Lower photo: Mobile off-road HARRIER BSR 3D ultralight surveillance unit with Satcom remote data display & control..



Custom configurations available; specifications subject to change without notice; detection ranges are general and vary by site based on conditions.

DeTect's radar processing technology developed specifically for detection and tracking of small, low radar-cross section, non-linearly moving targets make it one of the most sensitive, affordable security radar technologies on the market today for locating and monitoring a wide range of targets including aircraft, UAVs, ultralights, ships, boats, vehicles and pedestrians. The HARRIER security and surveillance radar provides full surveillance coverage ground level to altitudes up to 20,000 feet with ranges out to 30+ miles and allows the system to function as a multi-purpose sensor for simultaneous detection, alerting and tracking of aircraft, vessels and ground targets. HARRIER is an ideal, cost-effective solution for many force protection and homeland security applications. HARRIER functions include:

- 3D Airspace monitoring & surveillance
- Aircraft detection & tracking
- Marine and coastal surveillance
- Airspace see-and-avoid
- Intrusion detection
- Collision & obstruction avoidance
- Perimeter & shoreline security

Applications:

HARRIER applications include a wide range of sites, types, sizes and configurations from single facilities to large-area or linear radar networks for force protection and facility security, including:

- Commercial airports, civil aviation airports & military airfields & ranges
- Unmanned aerial vehicle (UAV) operations support
- Government installations
- Industrial plants, refineries & power plants
- Ports, waterways & coastlines
- Border control areas
- High security facilities
- Gap filler radars

Interoperability:

HARRIER systems can operate as a standalone security/force protection radar system detecting and alerting perimeter intrusions on land, by air and on water. The system can be programmed to detect intruders crossing a user-defined site perimeter, providing automated notifications to security forces. Alarm functionality can provide notification of security events via pager or cellular

phone or direct to remote monitoring stations. HARRIER ASR systems can also be used as coverage gap filler radars to provide data for large-scale navigation and military surveillance radars in areas blocked by terrain or structures including wind turbine farms.



Integrated Technology:

HARRIER systems use electronically variable high speed scanning (up to 48 rpm) for enhanced small target detection in high clutter environments such as developed areas, terrain and high sea states. Systems are optimized for detection of small targets that includes low-profile manually propelled watercraft, small motorized high-speed watercraft, low flying aircraft and ultralights. Automatic detection and tracking includes user-defined monitoring and alarm zones. Systems are offered in fixed and mobile configurations and can be linearly networked to cover large areas such as border crossings, coastlines and large facilities. DeTect's HARRIER technology is highly customizable providing radar, video, and thermal detection and acoustic deterrent through a single user interface display with advanced alerting and response features all controllable remotely.

Features include:

- Microsoft Windows-based operating software
- Integrated radar, thermal, video, acoustic, sonar & deterrents
- Display activated "point-and-click" video zoom & deterrent activation
- Compatible with other security & display systems
- Site-specific underlay maps includes mobile mapping technology
- Identifies & tracks each target by size, position, speed & heading
- Audible & visual intrusion alarms with optional notification by email & radio pager