

HARRIER

Beyond Visual Line of Sight (BVLOS)

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 and surveillance radar technologies on the market today for locating and monitoring a wide range of targets including aircraft, UAVs, drones, ultralights, ships, and boats.

HARRIER is an ideal, cost-effective solution for many force protection and homeland security applications.



Model: S200 - GBDA

Application: UAS ground-based detect and avoid and situational awareness

Functionality: Real-time airspace and surveillance with user-definable risk alerting

Configuration: Available in fixed or mobile (trailer, truck, vehicle) configurations in standard and custom designs

Sensors: Solid-state Doppler S-band radar sensor with 50,000 hour MTBF and all weather detection *X-band systems also available

Operating Range: Full 360 degree coverage with detection to 18nm

Power: 110/220 VAC, 60/30 amps service with UPS back-up & power conditioning (30 minutes) & optional auto-start single or dual 6 kW propane or diesel generator & fuel tank to support 10-20 days **24-7 operation**

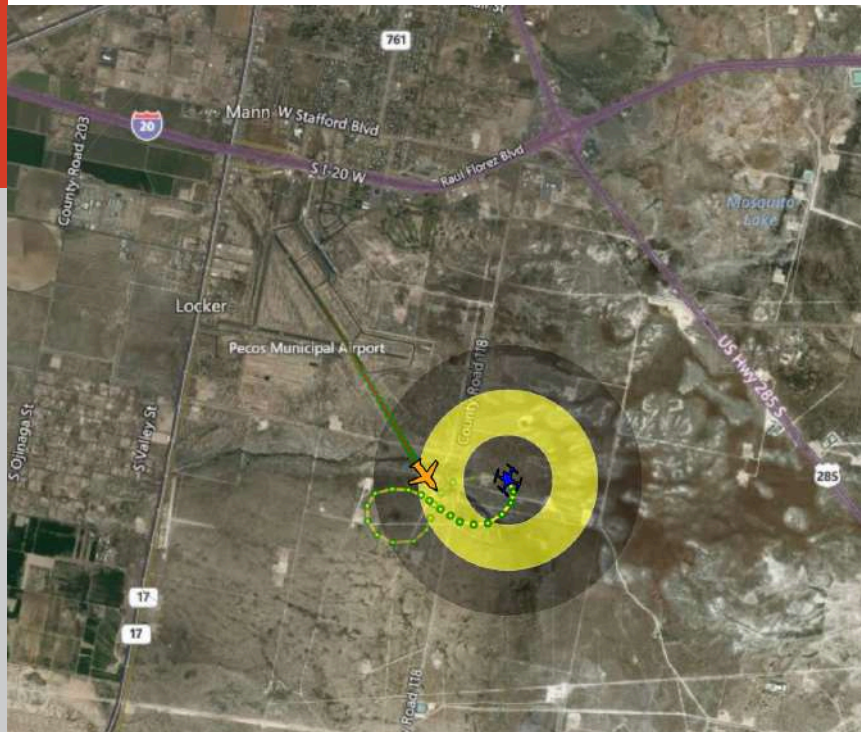
Network: TCP/IP connection supports multi-user web remote real-time system display, control & data access via fiber optic.



The HARRIER security and surveillance radar provides full surveillance coverage ground level to altitudes up to 20,000 feet with ranges out to 20+ miles and allows the system to function as a multi-purpose sensor for simultaneous detection, alerting and tracking of aircraft and vessels.

HARRIER functions include:

- Airspace monitoring & surveillance
- Aircraft detection & tracking
- Drone & small UAV detection & defense
- Ultralight (ULAD) detection & interdiction
- Marine, coastal & shoreline security
- Ground-based sense-and-avoid
- Collision & obstruction avoidance
- Gap coverage and filler



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Model: Harrier S200 – GBDA



Technical Data Sheet

Systems are optimized for detection of small targets that includes low-profile manually propelled watercraft, small motorized high-speed watercraft, low flying aircraft, ultralights and drones. 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.

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 & military airfields & ranges
- Unmanned aerial vehicle (UAV) operations support
- Government installations
- Industrial plants, refineries & power plants
- Ports, waterways & coastlines
- Prisons & Jails
- Border control areas
- High security facilities
- Stadiums, racetracks & other public venues
- Cities, campuses & shorelines
- Gap filler radars

Interoperability:

HARRIER systems can operate as a standalone security/force protection radar system detecting and alerting perimeter or zone incursions by air and on 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 or large-scale navigation and military surveillance radars in areas blocked by terrain or structures including wind turbine farms.

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 by text messaging or email. Integrated Technology: HARRIER systems use electronically variable high-speed scanning for enhanced small target detection in high clutter environments such as developed areas, terrain and high sea states.

Advantages of the HARRIER BVLOS

- Solid-state Doppler S or X-band radar with 50,000 hour MTBF
- Detection of cooperative (transponder equipped) and non-cooperative aircraft to 20+ miles
- Secondary Traffic Advisory System (TAS) and Automatic Dependent Surveillance-Broadcast (ADS-B) interrogators for cooperative aircraft detection and data acquisition
- Automatic target type classification using **DeTect's Intelligent Radar™ technology**
- Multi-functional for simultaneous detection of UAVs, drones and conventional aircraft (ultralights, helicopters, small-to-large aircraft)
- Optional slew-to-cue camera integration
- Automatic operation with user-definable risk alert zones and intrusion perimeters
- Full remote control and real-time information display (radar and video) to multiple users through secure network and web displays
- Includes real-time display to wireless and cellular devices (smart phones, tablets) alerts.

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 with mobile mapping technology
- Identifies & tracks each target by size, position, speed & heading
- Audible & visual intrusion alarms with optional notification by email & text.