

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 light aircraft, large and small unmanned aircraft systems (UAS), very small light and fast drones, ultralight aircraft, ships, boats, vehicles and persons on the ground.

HARRIER is an ideal, cost-effective solution for UAS operations to act as a remote visual observer



The HARRIER security and surveillance radar provides full surveillance coverage ground level to altitudes up to 20,000 feet with ranges out to 18+ miles and allows the system to function as a multi-purpose sensor for simultaneous detection, alerting and tracking of aircraft, vessels and other surface movement.

HARRIER functions include:

- 360° Airspace monitoring & surveillance
- Aircraft detection & tracking
- Drone & small UAS detection & defense
- Ultralight aircraft detection & interdiction
- Parachute activity
- Marine, coastal & shoreline security
- Ground-based sense-and-avoid
- Collision & obstruction avoidance
- Gap coverage and filler.



Model: S200 - BVLOS

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

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

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

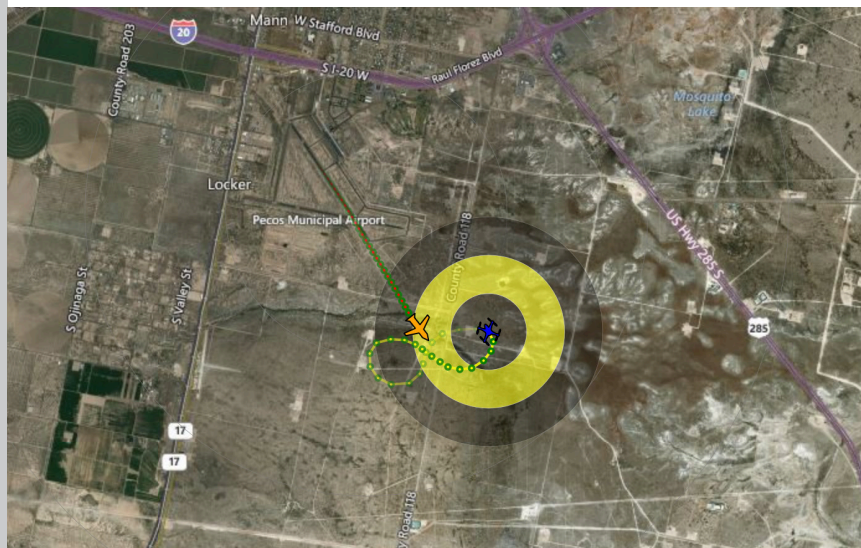
Sensors: Solid-state X-band and Doppler S-band radar with 50,000 hour MTBF and all weather detection.

Operating Range: Full 360° coverage with detection to 18nm.

Power: 110/220 VAC, 60/30 amps service, available in both 50Hz and 60Hz, 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 of **24-7 operation**.

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

Software: DeTect proprietary software that is able to provide probably definition of very small radar targets from 0.8 to 18NM.



Offices in: Panama City, Florida • Grand Forks, North Dakota • San Diego, California
Honolulu, Hawaii • Calgary, Alberta • London, England • Goleniow, Poland • Seoul, South Korea

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Model: Harrier S200 – BVLOS



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.

Technical Data Sheet

Systems are optimized for detection of very small targets that include low-profile manually propelled and small motorized high-speed watercraft, low flying aircraft, ultra-light aircraft, parachutes and very small, very fast drones.

Harrier is offered in fixed and mobile configurations and can be linearly networked to cover large areas such as borders, coastlines and large industrial site and secure facilities.

Applications:

HARRIER applications include an infinite 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
- Coastel areas and remote coastlines
- Prisons & Jails
- Border control areas
- High security facilities
- Stadiums, racetracks & other public venues
- Cities, campuses & shorelines
- Gap filler radars.

Interoperability:

HARRIER can operate as a stand-alone security/force protection radar system detecting and alerting perimeter or zone incursions via pager, text, cellular phone or direct to remote monitoring stations. HARRIER ASR systems can also be used as a coverage gap-filler radar to provide data or large-scale navigation and military surveillance radars in areas blocked by terrain or structures by linking multiple radars together while providing a single user interface.

It can be programmed to detect small surface vehicles, small vessels and intruders crossing a user-defined site perimeter, providing automated notifications to security forces. Alarm functionality can provide notification of security by text messaging, email or notifications to a users-choice means of communication (walkie-talkies, networked communications, etc.).

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 18+ miles
- Merged Automatic Dependent Surveillance– Broadcast (ADS-B) receiver data for aircraft detection and data acquisition
- Automatic target type classification using **DeTect's Intelligent Radar™ technology**
- Multi-functional for simultaneous detection of UASs, drones and conventional aircraft (ultralight aircraft, helicopters, parachutes, 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.
- Is compatible with all known radar, video, and thermal detection and acoustic deterrents through a single user.

Features Include:

- Proprietary, Windows-based, target-defining operating software
- 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.

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