

# MERLIN 7360p True3D™ BDR

Bird Detection Radar (portable)

Highly portable, True3D, full 360 degree bird detection radar system for environmental survey, monitoring and research.

Engineered & manufactured in the USA for dependable 24-7 operation with high reliability & low maintenance with hardware and operating software developed specifically for bird detection and tracking.

*The Right Radar for the Job™*



DeTect

**Proven bird radar technology tested, validated & used operationally by commercial airports, the US Fish & Wildlife Service, Air Force, Navy & NASA**

Developed by the world leader in avian radar technologies  
Incorporates technologies proven at over 600 installations worldwide since 2003  
Full parts & labor warranty & performance guarantee  
Designed & manufactured in the USA; meets Buy American Act (2018 & 2021 amendment)  
Supported by global network of offices and technicians.

*The Right Radar for the Job™*



DeTect™

**Model: MERLIN True3D BDR for bird & bat survey & monitoring**

## Technology Features

Classification intelligence (target-of-Interest & false positive minimization)  
Fast update rates (1-5 Hz) for improved target tracking  
Bird/small drone detection up to 5+km (2.7+nm)  
All weather situational awareness  
Low wattage power for low interference risk  
US FCC, US DOD & foreign frequency licensed/registered.

**Application:** Real-time bird & bat survey and monitoring; highly portable for tower, vehicle and stabilized offshore use

**Configuration:** Fixed & mobile designs, self-contained with all system hardware, software & integration included

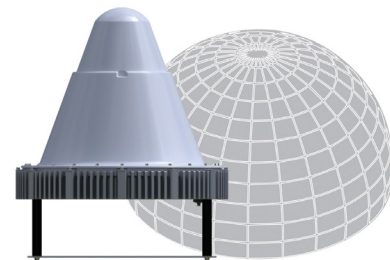
## Sensors:

Solid-state S-band Pulsed Doppler 3D radar, full 360 degree surveillance with high update rates (4x per second)  
Sealed radome enclosure for all environmental conditions  
Optional EOIR integration (visible & night camera) for real-time target classification & identification with advanced AI.

**Operating Range:** 1-3km (0.5-1.6nm) range for bird & bat detection, 360-degree True3D

**Power:** Single phase 110/240VAC, with UPS back-up, power conditioning (foreign power configurations available)

**Network:** TCP/IP supports multi-user web remote real-time system display, control & data access via fiber optic, wireless or mobile broadband



**20 YEARS** | DeTect™  
Celebrating 20 years of excellence 2003-2023



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

**www.detect-inc.com**

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## Specifications

Unlike traditional 3D & quasi-3D radars that scan only one sector at a time and leads to under-sampling, fewer tracks & low accuracy altitude estimates, DeTect's dynamic multibeam True3D radar scans & updates target data across the entire 3D volume continually, providing precise (x-y-z) data and no target or track error.

### TECHNICAL SPECIFICATIONS

**Architecture:** Simultaneous multiple beams

**Processing Type:** Pulsed Doppler

**Frequency Band:** S

**Range Resolution:** 10 or 20 m (adjustable)

**Selectable Frequency Bands:** 6 calibrated

**Instrumented Range:** 8km (4.3nm)

**Detection Ranges:**

Medium-sized Bird/Drone (DJI Phantom): 2.25 km (1.2nm) 360°

Large Aircraft: 7 km (3.8nm)

**Azimuth FOV:** 360°

**Elevation FOV:** 45°

**Software Defined Update Rate:** 1-5 Hz

**Minimum Detectable Velocity:** 0.25 - 1mph (0.4 - 4.5km)

**Weight:** 22.7 kg / 100 lbs.

**Dimensions:** 62.2 cm x 62.2 cm x 52.7 cm (24.5" x 24.5" x 20.75")

**Power Draw:** 80W

**Operating Temperature:** -20°C to +50°C (-4°F to +122°F)

**Component Temperature:** -40°C to +85°C (-40°F to +185°F)

**Heating/Cooling:** Passive

**Notes:**

Achieving maximum detection ranges requires sufficient mounting height and line of sight. Specifications subject to change as design is completed.



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### DETECT TRUE3D™ RADAR ADVANTAGES

Full 3D Radar

S-Band, Pulsed Doppler

3D digital multibeam dynamic (scans full 3D volume in single scan)

High update rates (4x per second)

Available in fixed, mobile & stabilized offshore configurations.

