

# MERLIN 7360s True3D™ BDR

## Stabilized Bird Detection Radar for Offshore Survey & Monitoring

True3D, full 360-degree stabilized bird detection radar system for offshore bird survey, monitoring and research. Engineered & manufactured in the USA for dependable 24-7 operation on an offshore buoy or vessel with high reliability & low maintenance with hardware and operating software developed specifically for bird detection, tracking and species identification



**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 800 installations worldwide since 2003
- Full parts & labor warranty & performance guarantee
- Designed & manufactured in the USA; meets Buy American Act (2018 & 2021 amendment)
- Supported by US & global network of offices and technicians.

**The Right Radar for the Job™**



**Model:**  
MERLIN 7360s True3D BDR for offshore bird & bat survey & monitoring

### Technology Features

- Classification intelligence (target-of-Interest & false positive minimization; includes Artificial Intelligence species identification)
- Fast update rates (1-5 Hz) for improved target tracking
- Bird/small drone detection up to 5+ km (3+ 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.

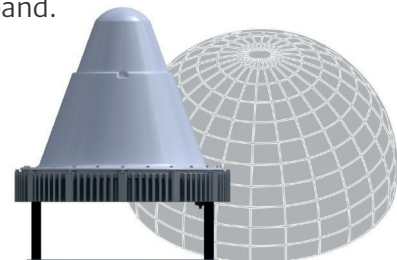
### Sensors:

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

**Operating Range:** 5 km (2.5 nm) range for bird & bat detection, 360-degree; wave motion-stabilized.

**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.



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

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## Specifications

Unlike traditional 3D & quasi-3D radars that scan only one sector at a time and leads to undersampling, 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.

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): 2.25km (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 - 1 mph

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:

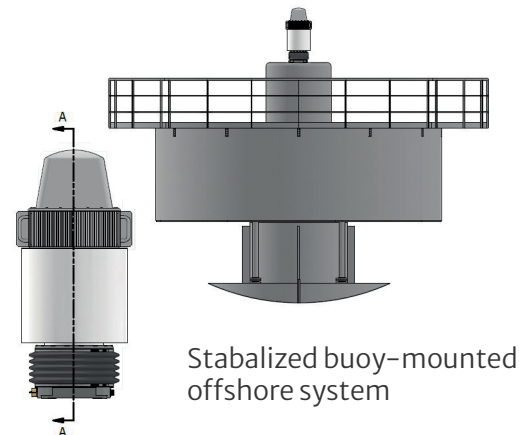
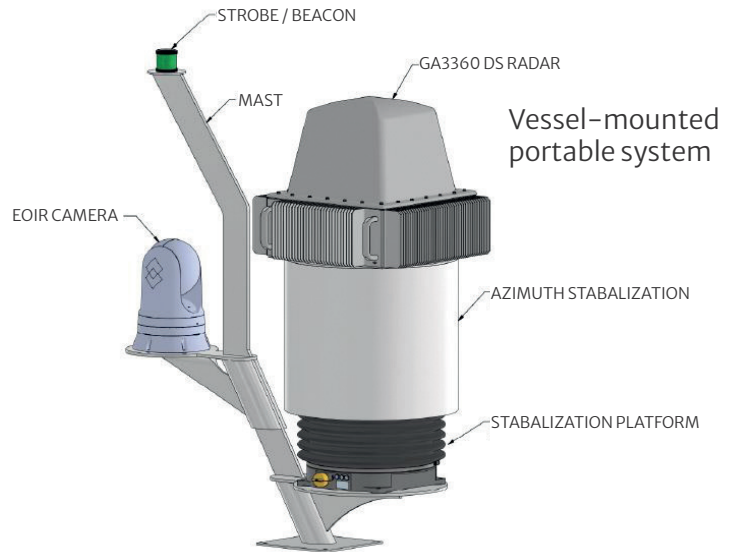
- Achieving maximum detection ranges requires sufficient mounting height and line of sight
- Specifications subject to change as design is completed.



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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



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