

# TECHNICAL DATA SHEET

## MERLIN

### detect & deter

### Bird Control Radar Systems



#### SUMMARY SPECIFICATIONS

*subject to change without notice*

- Model:** MERLIN detect & deter Bird Control Radar Systems
- Application:** Real-time, automatic bird & wildlife control for industrial impoundments, oil & gas waste ponds, landfills & other large wildlife exclusion areas
- Configuration:** Single or multi-unit networked fixed, skid-mounted or mobile radar packages
- Sensors:** 200w Horizontal Surveillance Radar (HSR)  
Solid-state sensors (50,000 hour MTBF)  
All weather bird & wildlife detection
- Operation:** Automated detection & non-lethal hazing of birds & other wildlife. Deterrent device options include Acoustic Hazing Devices (AHD's), lasers & conventional devices (propane cannons, bioacoustics & effigies)
- Operating Range:** 360 degree continuous monitoring with unlimited programmable control zones for areas in size from under 1 acre to over 10 square miles and up
- Power:** 110/220 VAC, 60/30 amps service with UPS back-up & power conditioning (30 minutes) & optional auto-start single or dual 6 kW diesel generator & fuel tank to support 10-20 days 24-7 operation
- Network:** TCP/IP supports multi-user web remote real-time system display, control & data access via fiber optic, wireless or cellular



**ABOVE:** MERLIN detect & deter system installation at oil sands processing facility waste pond in northern Canada providing migratory bird control; networked system includes three self contained master radar trailers & over ten satellite deterrent unit trailers.

**BELOW:** MERLIN detect & deter hazing activation zones (14 total) for product evaporation ponds at potash mine in the southwestern U.S.; networked three trailer system.



- The most widely used & tested bird radar system with over 140 units operating worldwide in bird control & aviation safety.
- Fully self contained, networked units with the capability to custom define multiple, zoned control perimeters.
- Engineered & manufactured for dependable 24-7 operation with high reliability & low maintenance.



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[www.detect-inc.com](http://www.detect-inc.com)

DeTect's MERLIN detect & deter bird control radar system is an advanced radar system designed to monitor user-defined bird and wildlife control zones, automatically activating bird deterrent devices to deter and harass birds entering restricted areas. The system is based on DeTect's proven MERLIN Avian Radar System technology that is used by the USAF, NASA and airports worldwide to detect and monitor hazardous bird activity on and around airfields for bird-aircraft strike hazard management. MERLIN detect & deter applications include control of birds at industrial waste impoundments, oil & gas drilling frac ponds, landfills, stormwater retention basins, crop fields and any site from small to large that requires automated bird control.

The technology includes the capability to custom define multiple, zoned control perimeters within the MERLIN software. Any bird targets detected entering the control area will trigger activation of the deterrent devices. Systems are available as fully self-contained and powered fixed, skid mounted or mobile units and multi-unit networks can be provided for complete, zoned coverage of large areas. The system interfaces with a wide variety of non-lethal bird deterrent devices including bioacoustics and propane cannons as well as the Long Range Acoustic Device (LRAD) and DeTect's Programmable Bird Control Laser system. MERLIN detect & deter uses automated randomized deterrent selection that varies the specific deterrent and volume applied with each response to reduce habituation. The system also includes a complete library of standard recorded acoustic deterrent files or can use client-provided files (supports .wav,.mpg and other formats).

MERLIN detect & deter is a complete turnkey system that includes the bird control radar master unit (radar sensor, radar tower, processor equipment, software and equipment enclosure), deterrent devices, installation, start-up and support, or can be integrated with existing deterrent systems. Systems provide reliable bird detection and deterrent hazing in virtually any terrain, over water and weather conditions, including in fog, rain and snow. MERLIN detect & deter systems are fully remote controllable and networkable through TCP/IP, wide area wireless and other protocols. All equipment is industrial-grade and designed for use in outdoor and extreme environments with exceptionally high reliability.



**Skid-mounted** single MERLIN detect & deter system for small gas processing facility waste pond resident & migratory bird control (Colorado USA).

The MERLIN radar and processor equipment is housed in a NEMA outdoor rated environmentally controlled enclosure that is pad mountable. Each system includes an available full 1 year labor and parts warranty and is supported 24-7 by DeTect's Technical support team that includes applications support experts (biologists, radar ornithologists and engineers). MERLIN technology has been tested and proven at installations throughout the U.S., Canada, Europe and Africa and represents the most advanced avian radar and bird control technology on the market.

**Satellite** deterrent unit trailer with LRAD & laser units.

