



# TECHNICAL DATA SHEET

## MERLIN *detect & deter* Bird Control Radar Systems

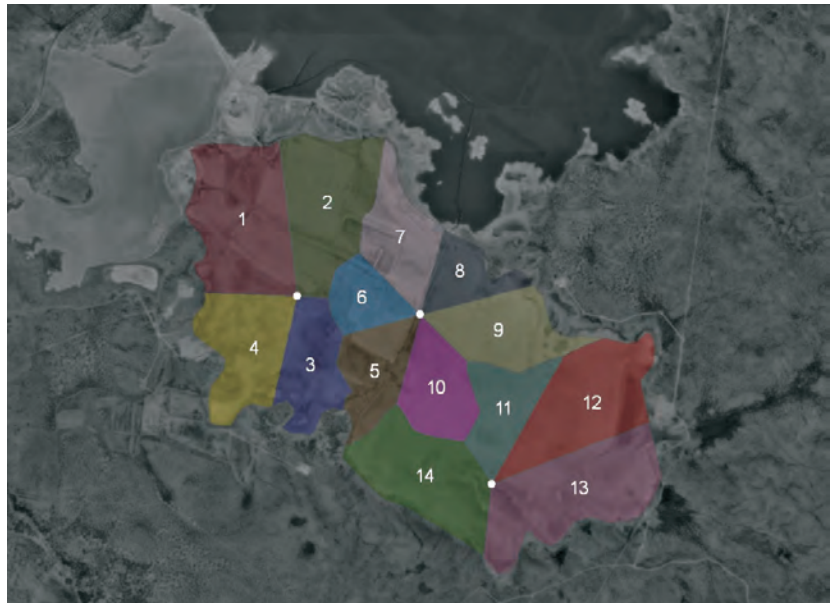


- System:** MERLIN *detect & deter* Bird Control Radar Systems
- Application:** Real-time, automatic bird & wildlife control for industrial impoundments, oil & gas waste ponds, landfills, & other large wildlife exclusion areas
- Configuration:** Single or multi-unit networked fixed, skid-mounted or mobile radar packages
- Radar 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 Long Range Acoustic Devices (LRADs), lasers & conventional devices (propane cannons, bioacoustics & effigies)
- Parameters:** 360 degree continuous monitoring with up to 256 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 per package unit with UPS back-up and power conditioning and optional on-board, dual 6 kW diesel generator and fuel tank to support 20 days unattended operation
- Network:** TCP/IP supports multi-user remote system display and control via fiber optic, wireless or cellular networks



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

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



*specifications subject to change without notice*



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 the multiple, zoned control perimeters within the MERLIN software and 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 & wildlife 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.



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

All equipment is industrial-grade and designed for use in outdoor and extreme environments with exceptionally high reliability. 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 3 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.*

