



COAST WATCHER 100

Long Range Coastal Surveillance radars

Air and surface fully solid-state surveillance radar. Designed to answer new coastal surveillance needs including round the clock, long range surface and low altitude targets detection.

Key Missions / Applications

- Medium range detection of very small threats
- Long range detection (line of sight) of medium and big targets
- Detection of low flying threats
- All weather detection capability
- SAR missions
- Helicopter guidance



Operational Benefits

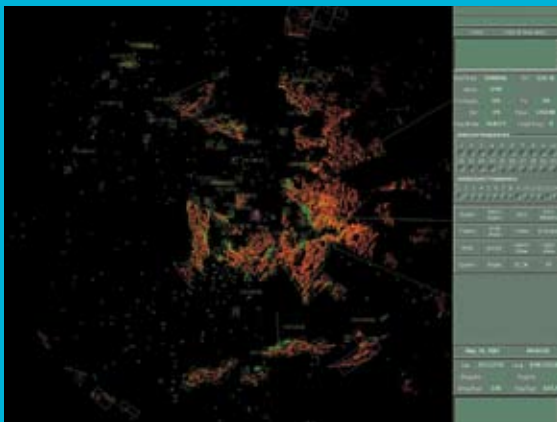
- Very high MTBF and MTBCF (1 year) thanks to transmitter graceful degradation and processing reconfiguration: reduced Life Cycle Cost
- High sea and rain clutter rejection thanks to frequency agility, circular polarization, high resolution and Doppler processing
- Can be installed at high altitude (up to 1000m)
- Very small target detection and long range detection
- Operated locally and remotely allowing the radar site to be unmanned
- Processing open architecture based on COTS
- IP connectivity for easy network integration (Eurocontrol ASTERIX protocol)

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Main Characteristics

- **Surface channel**
- **Frequency**
 - Operation in X band for better surface detection
 - Agility bandwidth: 300MHz
 - Number of frequencies: 8
- **Transmitter**
 - Technology: Solid-state, graceful degradation
 - Peak Power: modular: up to 1000W
 - Duty cycle: up to 15%



- **Antenna**
 - Rotation speed: 6-10rpm
 - Azimuth resolution: 0.6°
 - Polarization: linear and circular
- **Range**
 - Instrumented range: up to 100NM
 - Range resolution: down to 4m
- **Processing**
 - Open architecture based on COTS (PC Pentium™) allowing reconfiguration
 - False alarm regulation
 - Doppler processing for both surface and air targets
 - Scan to scan processing
 - Environment analysis
 - ATE (Adaptation To Environment)
 - Surface tracking with automatic initiation
 - Air tracking with automatic initiation
 - Use of electronic chart
 - AIS connection
- **Typical surface detection range:**
 - Radar altitude = 85m
 - RCS = 1 m², 1 m ASL: 15NM
 - RCS = 100m², 5m ASL: 22NM
 - Radar altitude = 1000m
 - RCS = 20m², 1 m ASL: 45NM
 - RCS = 100m², 5m ASL: 65NM
- **Typical air detection range:**
 - Ceiling = 3500feet
 - RCS = 3 m²,
500 feet ASL : 35NM

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