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Radar & Advanced Targeting

SEASPRAY 7500E
MULTI-MODE SURVEILLANCE RADAR

The Seaspray 7500E multi-mode radar combines a state-of-the-art Active Electronically Scanned Array (AESA) with a Commercial Off-The-Shelf (COTS) processor. Seaspray 7500E offers leading edge capabilities covering both air-to-air and air-to-surface environments. Meeting the customer's evolving requirements, Seaspray 7500E is one of the latest members to the successful Seaspray family of surveillance radars. More than 500 Seaspray radars have been delivered to operators around the world on a variety of platforms ranging from helicopters and fixed wing aircraft, to fast patrol boats.

KEY FEATURES

AESA technology and flexible waveform generation capability enables Seaspray 7500E to deliver peak performance in all modes.

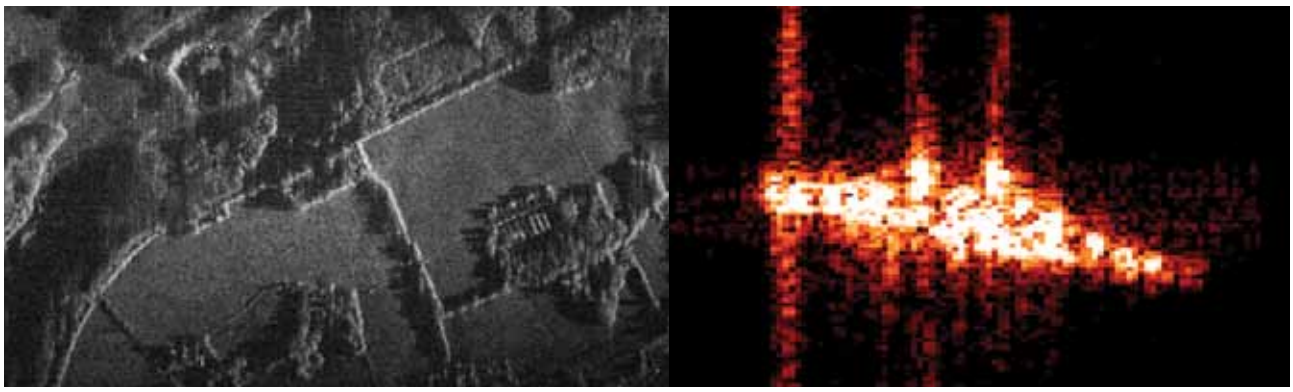
Using multiple low power, solid state Transmit/Receive Modules (TRM) makes the Seaspray 7500E radar more reliable than conventional radar systems. This results in a significant cost benefit over the life of the system. Superior performance in detecting small targets, such as Fast Inshore Attack Craft (FIAC) in high sea states, through use of Composite Electronic and Mechanical Scanning (CEMS).

Interleaved modes by virtue of its ability to change waveforms pulse-to-pulse. For instance, surface surveillance and weather detection can be provided simultaneously. Effectively two radars within one system.

Comprising just two primary air cooled Line Replaceable Units and requiring no waveguide, Seaspray 7500E is easy to install. It can be provided as a turnkey solution with embedded navigation sensors and Human Machine Interface or as a sensor solution to integrate with a platform mission system using industry standard interfaces.

KEY BENEFITS

- Excellent performance
- Low cost of ownership
- True multi-mode operation
- Software driven
- Highly reliable
- Easy to install
- Easy to use
- Mode interleaving.



TECHNICAL SPECIFICATION

Characteristics

Frequency	X Band
Scan coverage	360°
Maximum range	320 NM
Mean Time Between Failure (MTBF)	2,000 hours
Cooling	Unconditioned air
Weight	110kg

Dimensions

Scanner	565 mm height
Swept volume	1154 mm diameter
	306 mm height
Interfaces	Ethernet plus Mil Std 1553B, ARINC 419, RS422, RS232,USB and Synchro
Video outputs	RGB Stanag 3350, VGA, Digital Video

Functions

Track While Scan	Automatic
Track Identification	AIS integration
Mode Interleaving	Simultaneous dual-mode operation

Capabilities

Surface surveillance	Long Range Search Priority Track Small Target Mode
Navigation	Real Beam Ground Map Weather Detection Turbulence Detection
Beacon Detection	Search and Rescue Transponder (SART)
Target Imaging / Classification	ISAR Range Profiling

Ground Mapping

Spot SAR	High resolution ground mapping
Strip SAR	Medium resolution wide area ground mapping Oil Slick detection Iceberg detection
Moving Target Detection	GMTI Air-to-Air MTI

SUPERIOR OPERATIONAL AVAILABILITY

Seaspray 7500E removes the impact of single point transmitter failure inherent within conventional systems. The high power, low MTBF single transmitter is replaced by multiple low power, high MTBF TRMs within the array. Any TRM failures result in graceful performance degradation rather than complete system failure. Consequently, Seaspray 7500E delivers high operational availability.

We have stood at the forefront of the airborne radar market since the 1950s when the AI23 radar became the world's first high power monopulse radar to enter squadron service. Maintaining its leading position in the market, we have been developing AESA technology since the early 1990s and now have a range of AESA radar products available to meet the airborne radar market requirements.

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