

LEONARDO ELECTRONICS

7500E V2

SEASPRAY 7500E V2 AESA SURVEILLANCE RADAR



The 7500E V2 radar is the new variant of the highly successful Seaspray Active Electronically Scanned Array (AESA) radar family, featuring updated processor and receiver technology to meet the evolving demands of the ISR mission set.

7500E V2 is the largest and most capable Seaspray AESA radar and enhances the operationally proven 7500E. A comprehensive suite of air, sea and land surveillance and imaging modes equips platforms with enhanced multi-domain capabilities.

The ability to rapidly interleave modes enables effective operation in the most complex environments including littoral scenarios. The AESA radar equipped platform is becoming the Force Commander's ISR asset of choice, bringing a huge step change in both capability and reliability.

KEY BENEFITS

- True multi-mode operation
- Mode interleaving
- Highly reliable
- Low cost of ownership
- Easy to install
- Software driven
- End user mode customisation

AESA technology and flexible waveform generation enables delivery of peak performance in all modes. Using multiple low power, solid state Transmit/Receive Modules (TRM) the Seaspray 7500E V2 is inherently more reliable than legacy mechanically-scanned radar systems.

Reliability improvements manifest themselves in greater availability, fewer spares holdings, simpler maintenance and through-life support; increasing probability of mission success. This operationally demonstrated increased availability and time between failures suits surveillance missions demanding a long persistence capability in high tempo environments.

The improved Seaspray 7500E V2 radar modes are implemented in software within the enhanced V2 radar processor. New developments to GMTI, Spot/Strip SAR, ISAR and Air-Surveillance modes provide true multi-domain capability, including exceptional detection performance of small maritime targets in high clutter environments. Processor enhancements allow for a significant increase in the number of targets tracked over previous variants, whilst supporting both automatic and manual track initiation.

Leonardo has 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. 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.

TECHNICAL SPECIFICATION

Characteristics

Frequency:	X Band
Scan coverage:	360°
Maximum range:	320 NM
Mean Time Between Failure (MTBF):	2,000 hours
Interfaces:	Ethernet, ARINC 429 and 708
Positioning:	IMU, GPS, AIS built-in
Standards:	NITF 2.1, STANAG 4607

SWAP

Scanner:	22" height
Swept volume:	45" diameter, 12" height
Cooling:	Unconditioned air
Weight:	230lbs

Functions

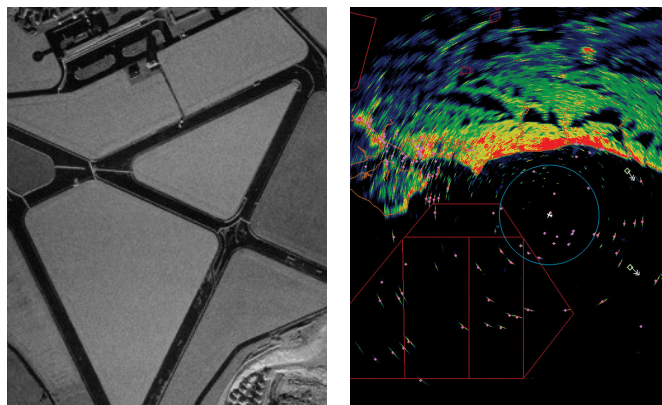
Track While Scan:	Automatic
Mode Interleaving:	Simultaneous dual-mode operation

Capabilities

Surface surveillance:	Maritime Surveillance , Small Target Mode
Navigation:	Real Beam Ground Map, Weather Detection, Turbulence Detection
Transponder Detection:	Search and Rescue Transponder
Target Imaging/Classification:	ISAR, Range Profiling

Ground Mapping

Spot SAR:	High resolution ground mapping
Strip SAR:	High resolution large image ground mapping, Oil Slick detection
Moving Target Detection:	GMTI, Air Surveillance



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