



The APS-143C(V)3/OceanEye™ is TTM's high performance maritime surveillance radar found onboard a wide array of fixed- and rotary-wing aircraft worldwide. OceanEye is lightweight and reliable, incorporating successful mission-critical features of earlier APS-143 versions with an integrated Identification Friend or Foe (IFF) interrogator.

Open-Architecture Design

OceanEye's open-architecture design facilitates software and firmware updates and is the best choice for maritime tactical missions now and well into the future. OceanEye features a three-box system comprised of a Receiver/Transmitter (R/T), Signal Processor (SP) and Antenna/Pedestal (A/P).



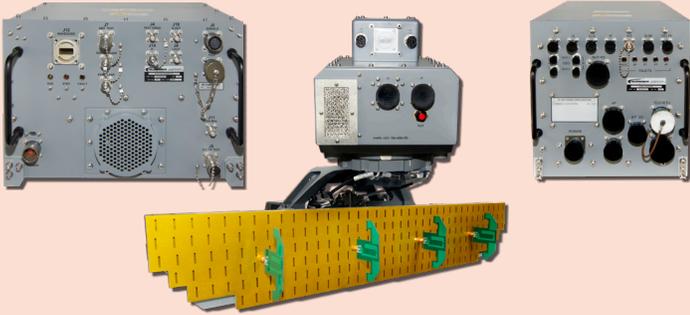
Sikorsky S-70

Mission Diversity

OceanEye's diverse mission areas make it a cost-effective radar for the following operational missions:

- Anti-Surface Warfare (ASuW)
- Small target detection
- Search and Rescue (SAR)
- Search and Rescue Transponder (SART) beacon detection
- Long-range maritime surveillance and classification
- Fisheries protection
- Coastal surveillance
- Contraband control and drug interdiction
- Border surveillance

Maritime Surveillance, Imaging and Tracking Radar System



System Specifications

System Weight:	190 lb./84.4 kg (with mounting trays)	
Box Size:	R/T - 1.5 long ATR; SP 1.0 long ATR; various A/P pedestal options	
Power Required:	115 V, 400 Hz, 3-phase AC power, 1.8 kVA typical, and 28 V, 12 A	
Operating Modes:	Standard:	Search, weather, SART beacon, Small target detect, ISAR, range profiling and stripmap SAR
	Optional:	IFF interrogator, AIS
	Planned:	Ground Moving Target Indicator (GMTI)
Control Configurations:	1553B data bus or standalone Tactical Display Management System (TDMS)	
Other Features:	Sector blanking, PRF jitter, frequency agility, low sidelobe antenna	

Display and Processing

Display Scales:	2, 4, 8, 16, 32, 64, 128, 256 NM	
Clutter Processing:	Scan-to-Scan integration	
Radar Monitor:	Wide variety of options available to meet platform requirements	
Standard Interfaces available to allow integration/operation with onboard display and control systems		
MIL-STD-1553, ARINC 429/571/575, IEEE-802 Ethernet, RS-232/422 Serial I/O		
Standalone consoles available using Telephonics' TDMS		

Performance

Maximum Range:	200 NM
Display Range Resolution:	0.01 NM (1 meter for imaging option)
Azimuth Accuracy:	0.5° or better
Mean Time Before Failure:	800 hours for helicopters; 1,400 hours for fixed-wing A/P
Bandwidth:	460 MHz
Gain:	31 to 35 dB (antenna/platform dependent)
Integrated IFF dipoles available	
360° scan	
Sector Scan:	Operator selectable 45° to 350°
Stabilization:	Standard +10°/-25° pitch-and-roll (using antenna tilt)
Flexible Mounting:	Belly, nose, top

Advanced Radar Techniques

- Automatic detection and tracking with built-in global land mass rejection capability reduces operator workload in blue water and the littorals with low false alarm rates
- Frequency agile waveforms covering 460 MHz bandwidth enhances detection and reduces false returns
- High-range resolution with duty cycle pulse compression waveforms
- Synthetic Aperture Radar (SAR) and Inverse Synthetic Aperture Radar (ISAR) imaging modes
- Scan-to-scan integration
- Internally integrated IFF available
- Internally integrated Automatic Identification System (AIS) receivers



Indian Navy P-8I long-range, multi-mission maritime patrol aircraft.

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