

The APS-143C(V)3/OceanEye™ system is Telephonics Corporation's high performing maritime surveillance radar that operates 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).

### Mission Diversity

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

- Anti-Surface Warfare (ASuW)
- Small Target Detection
- Search and Rescue
- Search and Rescue Transponders (SART) Beacon Detection
- Long-Range Maritime Surveillance and Classification
- Fisheries Protection
- Coastal Surveillance
- Contraband Control and Drug Interdiction
- Border Surveillance



### 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 and Inverse Synthetic Aperture Radar imaging modes
- Scan-to-Scan integration
- Internally integrated IFF Interrogation available
- Internally integrated Automatic Identification System (AIS) Receivers

## System Specifications:

- System Weight: 190 lb./84.4 kg (with mounting trays)
- Box Size: R/T - 1.5 long ATR; S/P 1.0 long ATR; various antenna-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, Stripmap SAR
  - Optional: IFF Interrogator, AIS
  - Planned: Ground Moving Target Indicator
- Control Configurations: 1553B data bus or standalone  
Tactical Display Management System (TDMS)
- Other Features: Sector blanking, PRF jitter, frequency agility, low sidelobe antenna

## Performance:

- Maximum Range: 200 NM
- Display Range Resolution: 0.01 NM (1 meter for imaging option)
- Azimuth Accuracy: 0.5 degrees 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 degree scan
- Sector Scan: Operator selectable 45 degrees to 350 degrees
- Stabilization: Standard +10 degrees/-25 degrees pitch-and-roll (using antenna tilt)
- Flexible Mounting: Belly, nose, top

## 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