

# SEA OWL

Passive Identification Device



- Long range surveillance and identification
- Night and poor weather capability
- Automatic target acquisition and tracking
- Full IR sensor stabilisation and steering
- 1553B databus compatible
- Weapon system integration



# SEA OWL PASSIVE IDENTIFICATION DEVICE

The Passive Identification Device (PID) is a steerable, stabilised infrared sensor system, providing an exceptional stand-off viewing capability by night or day and in poor weather conditions.

The system uses dual field of view optics and advanced signal processing to provide both wide area surveillance and detection, and a very long range target recognition, identification and tracking capability. The imager employed is a high resolution configuration of the Sensors Division family of Modular Thermal Imaging Sensors (M-TIS).

The PID may be integrated into a variety of helicopters and fixed wing aircraft, communicating with tactical information or weapons systems via the 1553B databus. PID meets the most demanding requirements of maritime and border surveillance applications.

The advanced equipment design concept features high reliability, built-in test equipment (BITE), and ease of maintenance which enables GEC-Marconi Avionics to provide comprehensive whole life support with good spares availability and tailored training facilities.

The PID is in production for the UK Ministry of Defence SEA OWL programme to provide Royal Navy Lynx helicopters with an all weather, day or night, target detection, identification and tracking capability.

## Specification V5040

**Platform** *Normal operation* —  
Elevation +20° to -30°  
Azimuth +120° to -120°  
*Slew rate* —  
Variable up to a maximum of 60°/sec  
*Stability* —  
50µrad rms typical on both axes

**Optics** *Telescope* —  
Fixed focus x5 or x30 switched  
*Field of view* —  
625 line 50Hz    525 line 60Hz  
12° x 8°        9.7° x 6.5°  
2° x 1.33°      1.6° x 1.08°

**I.R. Sensor** M-TIS configuration  
8 parallel CMT 'TED' detector  
MRTD typically better than 0.1°C  
8-13µm spectral bandwidth cooling by mini compressor

**Electrical** *Control* —  
Via 1553B databus interface

*Video output* —  
CCIR System I-625 lines 50Hz  
*OR*  
EIA-RS 170-525 lines 60Hz

*Power supply* —  
28V dc nominal designed to meet voltage range 24 to 29V dc Typical input power 570VA to 857 (peak) VA  
115V 3 phase 400Hz 115VA

**Weight**

Turret	64kg
Signal Processor	17kg
Tracking Unit	13kg
Compressor	10kg



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## GEC-Marconi SENSORS



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