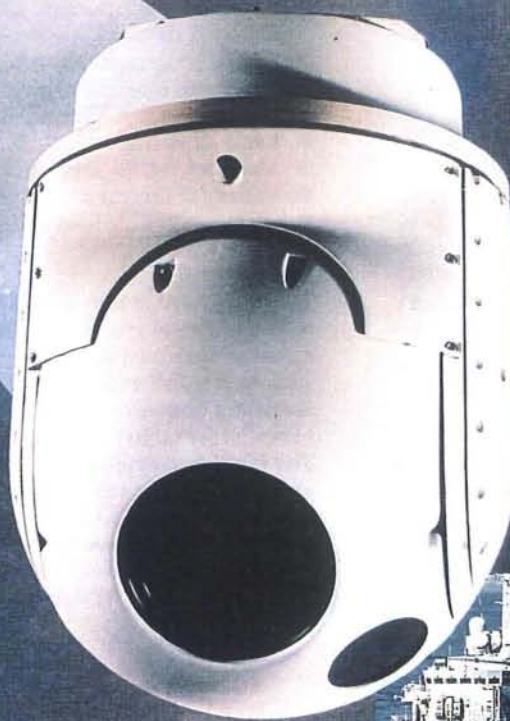


Multi Sensor Turret



- 24 hour all weather surveillance capability
- Radar slaved and fully hardened
- Simple installation and integration
- Simultaneous IR and visual sensor operation
- Auto target tracking
- Full 360° sensor steering with self contained gyro stabilisation

M-TIS



SENSORS DIVISION

The Multi Sensor Turret combines high resolution co-boresighted sensors for cost effective 24 hour all weather operation. The multispectral sensors penetrate total darkness, smoke, mist and haze to meet the most demanding requirements for long range target detection, identification and tracking.

This versatile, compact system is simple to install and easy to use. It is in production and in service worldwide on a variety of helicopters and high speed fixed wing aircraft. Typical applications include:- Nap of the earth flying and navigation, maritime patrol, law enforcement, search and rescue, economic exclusion zone, security and border surveillance.

The IR sensor employs the unique SPRITE detector with DC restoration, advanced image processing and automatic control to provide the sensitivity and image quality essential for these demanding roles. Advanced staring focal plane array IR sensors are available as an alternative to meet specific user requirements. The TV camera, which can be viewed simultaneously with the IR image, enhances the positive identification capabilities of the system during daylight hours.



Simple and proven integration of the Multi Sensor Turret with airborne radars and avionics management systems provides a powerful multi-mission capability for advanced tactical operations.

The modular configuration enables both current and future customer requirements to be met from an extensive inventory of options including:-

- Video auto tracker
- Radar designated pointing
- MIL-STD 1553; ARINC 429 & RS422 databus interfaces
- Screen programmable graphics
- Electronic magnification
- New generation Thermal imagers
- Laser illuminator
- Monitors; VCRs; Data links
- Variety of control units
- NVG compatible filters
- Wash wipe

The equipment is fully ruggedised and radar hardened to military standards for airborne environments. Each unit is subjected to full environmental stress screening to ensure the high reliability essential for today's demanding roles. The Multi Sensor Turret features extensive built-in test equipment for ease of maintenance. GEC-Marconi Avionics provides comprehensive whole life support with spares, service and training facilities available from international support depots.

Specification

IR camera:-

IR detector	: 8 element SPRITE
MRTD.	: Typically 0.05°C
Spectral band	: 8 - 13 μm
Detector cooling	: Split Stirling-cycle cooling engine
Cool down	: Typically 3.5 minutes
Telescope	: Continuous zoom
Electronic magnification	: x2
Fields of view	: 3° to 40° dependent on selected telescope

Colour camera:-

Luminance	: 10 Lux (fl.9)
Resolution	: 400 TV line (Horizontal)
Zoom range	: 10 : 1
Functions	: Auto iris, motorised zoom & focus

Monochrome camera:-

Luminance	: 2 Lux (fl.9)
Resolution	: 500 TV line (Horizontal)
Zoom range	: 10 : 1
Functions	: Auto iris motorised zoom & focus

System:-

Steering	: Continuous rotation in azimuth and elevation with third axis gyro stabilised look down
Stability	: 80μ radians
Slewing rate	: Up to 100°/second
Airspeed	: Full operation 300 Knots Carriage 400 Knots
Principal modes	: Cage; pointing; search & track; sector scan; heading hold; park
Video	: CCIR system I 625 lines 50 Hz or EIA-RS 170 525 lines 60 Hz
Power	: 28V dc nominal, 340W typical
Databus interface	: MIL-STD 1553B; ARINC 429; RS422
Built-in test	: Automatic fault detection and isolation

Typical weight & dimensions

Turret	: 385mm diameter x 525mm height; weight 43kg
Joystick Unit	: Variety of units available – Typical weight 2kg (Optional)
Electronic Unit	: 700mm x 200mm x 135mm; weight 12kg (Optional)

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GEC-Marconi SENSORS



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