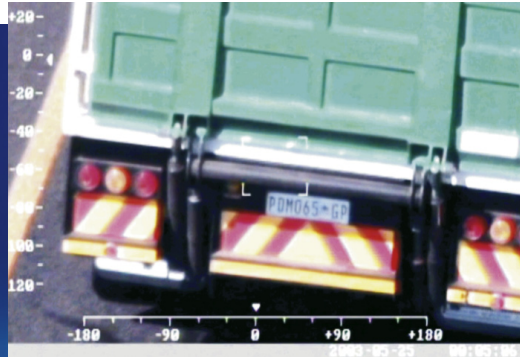


LEO-II-A5

Airborne Observation System



Features

- High-sensitivity, 320 x 240, 3rd generation, long-wave, 3 FOV thermal imager
- Simultaneous three-sensor capability
- Wide-spectrum spotter TV camera (colour and B/W)
- Video autotracker (optional)
- MAPS geo-pointing capability (optional)
- Searchlight slaving interface
- Communication interfaces for ARINC 429 (optional), RS422, RS232 to moving map, GPS, searchlight
- NVG compatible



We make it visible.

LEO-II-A5

High-reliability composite turret

Superior image quality is achieved in a low-mass, optimal turret in the 410 mm diameter category. It is the first turret in its class to be manufactured using composite materials. The low-mass, high-rigidity turret structure provides the foundation for superior line-of-sight stabilisation and superb environmental survivability.

Modular system

Selectable options for turret sensors and functionalities. The Control Electronics Unit (CEU) enables excellent modularity with an auto-tracker card and/or an ARINC 429 interface card that can be fitted

inside the CEU. Various communication channels (RS 232, RS 422, ARINC 429) and video outputs with selectable levels of symbology overlay from the CEU ensure easy and effective interfacing to other equipment such as moving map displays, GPS, searchlights, real-time video downlinks and video displays.

Applications

- Law enforcement
- Search and Rescue (SAR)
- Paramilitary reconnaissance
- Border/coastal patrol
- Public safety (fire & rescue)
- Covert long-range/high-altitude surveillance
- Disaster response

Technical Data

System specifications and dimensions

Stabilised turret unit	49 cm (H) x 42 cm (dia) < 42 kg (full suite of sensors)
Control Electronics Unit	13 x 33 x 20 cm (W x L x H) < 8.5 kg
Laptop Control Unit	21 x 35 x 11 cm (W x L x H) < 1.8 kg
Power	28 VDC nominal 280 W nominal
Environmental	-20°C to +55°C (operating) -40°C to +60°C (storage)

Thermal imager

Camera type	Triple QWIP 320 3rd generation focal plane array (FPA), three FOV optical system
Spectral band	8–9 µm
Detector	GaAs QWIP FPA 320 H x 240 V
Fields of view	Wide 25° H x 19° V Medium 6° H x 4.5° V Narrow 0.99° H x 0.74° V
Electronic zoom	2x & 4x
Video format	PAL video format
Cooling	Integral long-life stirling cooler
Additional features	Isotherms, pseudo colours, auto focus

Colour zoom TV camera

Camera type	SONY DXC-390P exwave-HAD
Sensor format	1/3 inch type 3-CCD
Resolution	800 TV lines
Fields of view	1.6° H to 25° H continuous zoom
Zoom ratio	16x effective
Video format	PAL video format

Stabilised turret unit

Turret type	6 axes (4 active, 2 passive)
Stabilisation	< 10 µ rad rms
AZ look angles	n x 360°
EL look angles	+20° to -120°

Wide-spectrum spotter TV (450 nm – 950 nm) (optional)

Camera type	Colour CCD and B/W CCD dual sensor
Sensor format	1/3 inch 1-CCD
Resolution	480 TV lines colour CCD 570 TV lines B/W CCD near IR capability
Field of view	0.35° H x 0.26° V
Video format	PAL video format

Laser Range Finder (optional)

Measuring range	80 m to 20,000 m
Range resolution	5 m
Standard measuring rate	1 measurement every 6 seconds
Laser type	Erbium glass, 1.54 µm
Safety class	Class 1 according to ANSI Z136. 1–2000 Class 1M according to IEC 60825-1 Ed 1.2 of 2001-08

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