



OBSERVER 100 GROUND-BASED SITUATIONAL AWARENESS SYSTEM

SELEX Galileo has a broad range of technologies within operationally deployed systems and the capability to integrate sensors to deliver persistent situational awareness.

Utilising its experience and expertise SELEX Galileo has developed OBSERVER 100, a trailer-borne situational awareness system. OBSERVER 100 delivers 360 degree day and night surveillance which is quick to deploy and recover providing surveillance to mobile patrols as well as fixed installations.

OBSERVER 100 is Military Off-The-Shelf and ITAR free, comprising of an integrated radar and Electro-Optic sensor head, a 10 metre mast, processor unit, power management unit and batteries mounted in a sub-frame with an integrated generator. Accepting power from a range of external sources, it is self sufficient for over 30 days and has a plug and play sensor suite to meet a range of user needs and tasks.

OBSERVER 100's control suite can be remoted from the sensor system by up to 100 metres via cable or further via an IP radio. It provides two displays, a map with the radar targets and tracks overlaid and video from the thermal or colour camera. There is also a joystick for intuitive control of the EO sensors and simple push button icons for all other functions.

OBSERVER 100 KEY BENEFITS

- Open architecture allowing simple integration with other sensors and systems
- Deployable in under 10 minutes providing reduced vulnerability on arrival at a temporary location
- Reduced logistics burden through low power consumption combined with flexible power management to provide operation in excess of 30 days without refuelling
- Reduced operator workload and fatigue through automatic potential threat detection and location from the Ground Surveillance Radar (Triggers and Cues)
- Low training burden due to the rugged and intuitive icon driven user interface
- Operates effectively in extremes of terrain and climate.

KEY APPLICATIONS

- Border Management
- Critical National Infrastructure
- Forward operating/ patrol bases
- Major/ high profile events
- Oil and gas exploration.

OBSERVER 100 Ground-Based Situational Awareness System



VANTAGE map display



TECHNICAL SPECIFICATIONS

Weight

On trailer	Less than 1750kg
Off trailer	Less than 1060kg

Sensor Height

11m
Taller solutions available within the OBSERVER family

Time into action

Less than 10 minutes (two man team)

Deployment time without re-supply

In excess of 30 days



The SLX HAWK 2:24cz high performance thermal imaging camera can be integrated into the OBSERVER 100 system

A range of sensors can be fitted on to the OBSERVER 100 system to meet the individual needs of the Customer.

Thermal Camera

Sensor type	Cadmium Mercury Telluride (CMT) 3rd Gen
Array size	640 x 512 pixels
Spectral band	3.7µm to 5µm
Lens:	Continuous zoom
Field of view narrow	1.8° hoz x 1.44° degrees vert
Field of view wide	24° hoz x 19.2° degrees vert

Thermal camera detection range

Man	10.2km
Vehicle	18.33km

Thermal camera recognition range

Man	3.42km
Vehicle	6.1km

Colour Camera

Imaging Device	¼" HAD CCD
Optical zoom	x36
Focus	Auto-focus
Field of view:	1.7° to 57.8°
Aperture	F/1.6 to F/4.5
Shutter speed	1sec to 1/10000 sec (in 22 steps)

Colour camera detection range

Man	9km
Vehicle	16km

Colour camera recognition range

Man	3km
Vehicle	5.36km

Radar Detection range

Man	< 2.7km
Light vehicle	< 4.8km

Pan and Tilt Head

Accuracy	0.056° 1 sigma
Elevation range	±45°
Mean velocity between	0.0056 and 60°/second

Laser Range Finder (Optional)

OBSERVER 100 can support an eye-safe (1.5µm wavelength) Laser Range Finder. Typical range performance for this device is 20km.