

Team G-WASP (Ground-Wide Area Surveillance Platform)

A rapidly deployable trailer-based force protection system providing advanced warning for potential threats. G-WASP enables combat forces to identify, decide, then dominate.



THALES





Ground-Wide Area Surveillance Platform (G-WASP)

Advance warning of threats is critical to increase survivability and improve mission success. The Ground-Wide Area Surveillance Platform (G-WASP) provides a rapidly deployable, scalable, trailer-based force protection system that can be towed by a wide range of vehicles or transported by helicopter.

- Operational within 25 minutes with no prior ground preparation
- Automatic detect and alert mode cuts patrol manpower
- Fully self-sustainable for up to 25 days

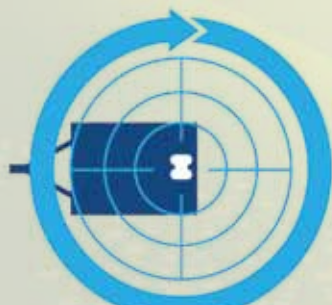
G-WASP is a fully developed, off-the-shelf solution that is available now to meet urgent operational needs. G-WASP provides the key to identify threats, communicate their position and initiate a rapid response to dominate the area.



Radar Configuration Options



Networked



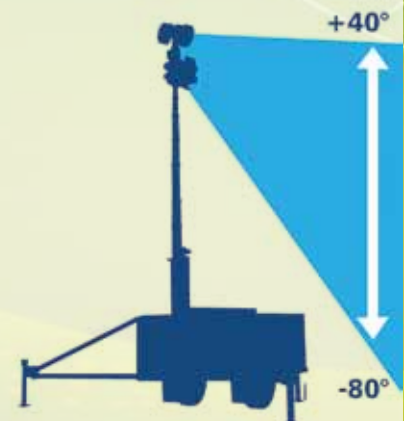
360° coverage

Double



180° coverage

Single



Range Coverage

Border Surveillance

Networked, autonomous platforms with excellent range performance and day/night capability provide reliable surveillance and monitoring of complex borders. A number of G-WASP platforms can be networked together to create a “virtual fence”.

Security of Forward Operating Bases and Key Installations

360° mast mounted optical head provides uninterrupted coverage 24 hours a day and in all weather conditions. Automatic Geographic Information System (GIS) target information and integrated laser pointer highlights threats and allows prioritisation of response.

Improvised Explosive Device (IED) Clearance Support

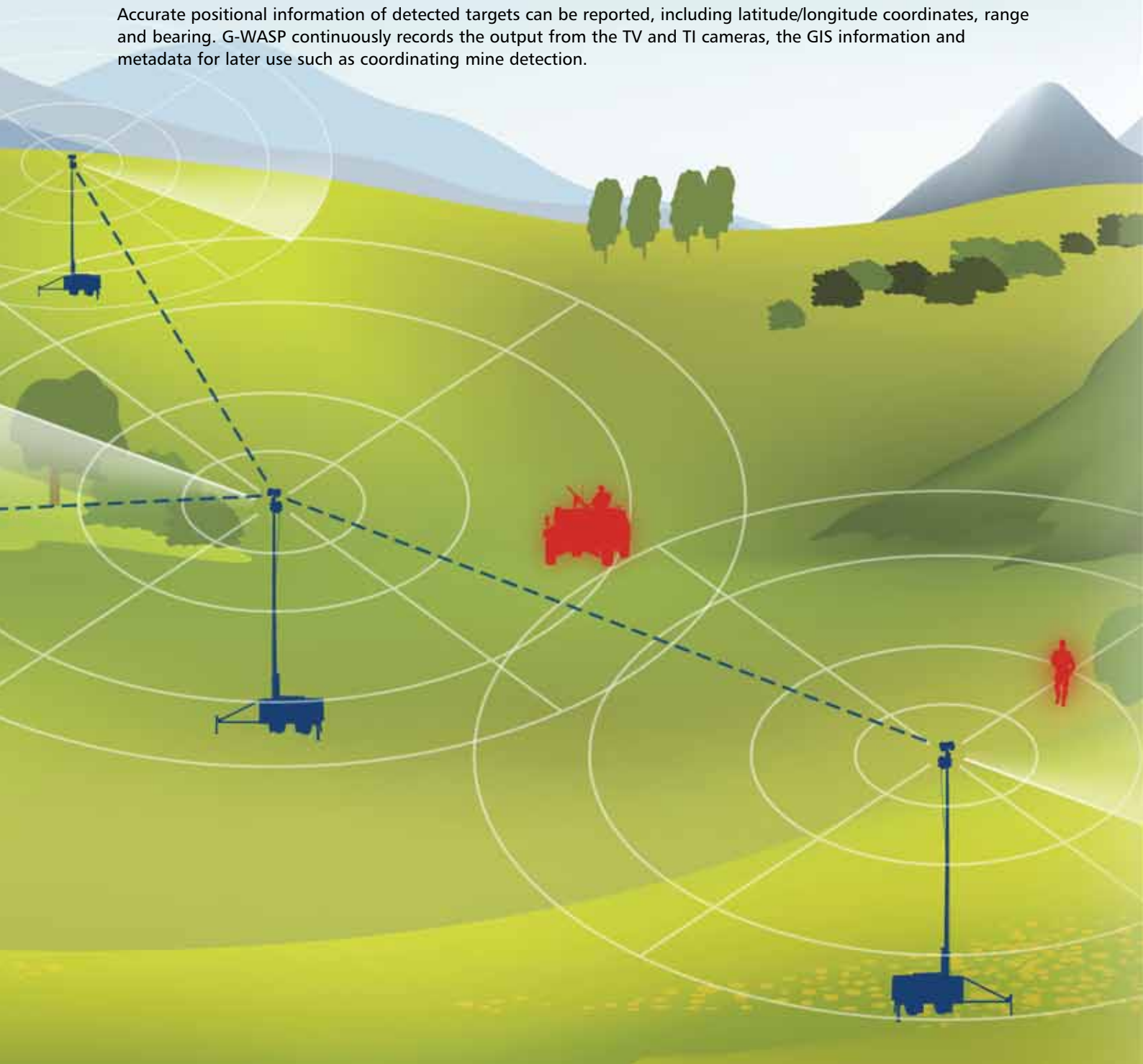
Operational Commanders benefit from an increased vantage point with high definition TV colour zoom camera while the Thermal Imager (TI) increases the probability of detecting recent ground disturbance. Electronic scanning radar detects moving people in the clearance area.

Route Denial

Self-contained, autonomous day and night system that can be deployed for over 25 days without re-supply. GWASP allows strategic routes and ground to be monitored and protected from potential threats.

Coastal Protection

Accurate positional information of detected targets can be reported, including latitude/longitude coordinates, range and bearing. G-WASP continuously records the output from the TV and TI cameras, the GIS information and metadata for later use such as coordinating mine detection.



Radar

Lightweight, low cost electronic scanning radar detects moving people and vehicles over a wide area. Day/night operation with superior ground clutter suppression results in a low false alarm rate.



Optical Head

High definition thermal imager, colour CCD TV camera and eye safe laser range finder provides 24/7 all weather surveillance capability. High elevation and depression angles allow uninterrupted visual coverage.



Situational Awareness (SA) and Sensor Management System

Fusion of Sensor Data allows automatic tracking of several hundred individual targets at rapid update rates and allows camera/thermal imager to automatically track specific threats identified by the system. Integrated GIS allows sharing of SA and Common Operating Picture (COP) between networked systems.



Communications and C2

High bandwidth, low latency, fully secure data transfer platforms provides rapid transfer of SA information between platforms and remote Command location. Self-healing, self-forming ad hoc network continuously monitors connectivity to ensure optimum network performance.



Platform

Self-contained, compact trailer that can be rapidly deployed by towing vehicle, aircraft or helicopter. 2 man, 15 minute physical deployment, fully operational within 25 minutes. Self-contained power management for 25 days without re-supply.



TECHNICAL SPECIFICATIONS

Radar

- E-scan Frequency Modulate Continuous Wave (FMCW) doppler ground radar
 - Ku-band
 - 1 W transmit power
 - 5 km maximum range, 10m minimum range
 - 700 targets per scan maximum
 - 1 false alarm per day
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Optical Head

- High definition TI 1280x1024 SXGA, CCIR or digital video output
 - TI detection range: vehicle 20 km, person 10 km
 - TI recognition range: vehicle 7.5 km, person 3.5 km
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Situational Awareness (SA) and Sensor Management System

- Automatic tracking of individual targets
 - Robust and flexible core architecture for addition of new sensors
 - Tactical or strategic tracking display
 - Multi sensor management and data fusion
 - Vehicle and personnel tracking capability
 - Blue Force Tracking (BFT)
 - Point of fire indication
 - Networked scalable solutions - observation posts to forward operational bases
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Communications and C2

- Sensor backbone supported high bandwidth data system
 - Localised IP voice and data network
 - AES 256-bit encryption with unique country code
 - Self-healing, self-organising, multi-hop tactical LAN
 - Remote integrated control and monitoring suite
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Platform

- NATO compatible road trailers, fully compatible with all standard lighting and power connectors
- Weight - 2 to 2.5 metric tonne depending upon configuration options
- Military standard 12V (paired to 24 V) batteries and diesel generator
- 10 m pneumatic mast with locking rings
- Harness points underneath the trailer for sling loaded delivery
- Anchor and guy points for stabilisation in extreme weather conditions
- Designed and built to military environmental specifications



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