

Unattended Ground Sensor Network

UGSN



BATS's UGSN is a state-of-the-art, all-weather intelligent Unattended Ground Sensor Network (UGSN) for continuous tactical area monitoring missions.

BATS's UGSN is deployed for continuous and reliable monitoring of the movements and deployments of forces in the theater under surveillance.

The UGSN is a modular and robust network of autonomous distributed sensors, including seismic/acoustic, magnetic and electro-optical sensors. Additional sensors can be added to the network with minimal effort.

The sensors employ advanced human and vehicle target detection and classification algorithms, providing high probability of detection and ensuring a very low false alarm rate.

BATS's UGSN forms an ad-hoc intelligent, bi-directional, low-power mesh communication network which transfers each event of interest to the Ground Command & Control (GCC) Station. The networking synergy algorithms enhance the lifetime of the entire network, utilizing sensor-to-sensor triggering techniques.

Specifications

- Continuous 24/7, non-line-of sight area monitoring
- High probability of detection
- Very low false alarm rate
- Very low power consumption
- Advanced and robust low-power detection and classification algorithms
- Mesh network operation
- Automatic designation to E/O UGS
- Designed for operation in harsh environments rapid and easy deployment by non-skilled personnel
- Applicable to military and homeland security scenarios
- Weight: typical 0.5 kg

Technical characteristics

Seismic & acoustic UGS operation:

- Standard 30-60 day battery life (according to event frequency), modular and extendable
- Built-in GPS and anti-tamper capability

Detection ranges

- Pedestrian: 30m (nominal)
- Heavy Vehicle: 500m (nominal)

Magnetic UGS detection range

- Pedestrian: 3m (nominal)
- Vehicle: 10-20m (nominal)