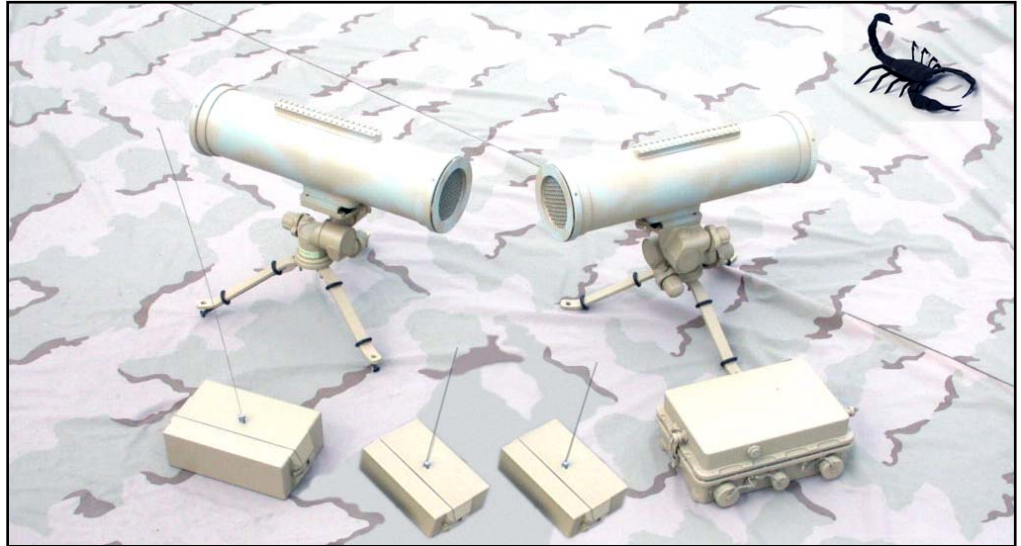
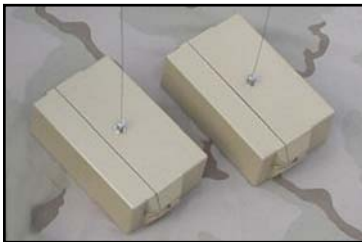


SCORPION

Unattended Target Recognition Systems



Overview

Northrop Grumman's SCORPION Long & Short Range Target Recognition Systems provide critical worldwide data and imagery for long or short duration military and intelligence gathering operations.

This fully autonomous Unattended Ground Sensor (UGS) system is comprised of day and night vision Electro-optic (EO), seismic, and magnetic sensors; wireless local RF communications; and a remote communications gateway. The remote gateway provides secure two-way, beyond line-of-sight, communications for around the clock global surveillance of time critical targets.

Multiple, geographically separate SCORPION systems can transmit imagery and data to a single remote or local mission support site. Imagery and data from separate sensor systems are combined to form a common operational picture (COP).

The robust and expandable, open interface, architecture system is built from commercial-off-the-shelf (COTS) components, and SCORPION is adaptable to sensors from most vendors.

SCORPION is designed to use minimal operating power while maximizing battery life, enabling missions of six months or more without changing batteries.

Operators may add an optical pan / tilt device for collecting short and long range day or night imagery (zoom capable). The device eliminates the need for mechanical movement, eases concealment, and reduces the probability of system detection.

Mission Areas

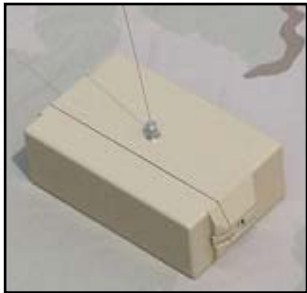
- Situational awareness
- Border and perimeter security
- Persistent surveillance
- Target recognition
- Urban operations
- Counter IED/sniper

Key Features

- Modular, open extensible architecture
- Greater than 95% probability of detection/recognition when optimized for less than 5% false alarm rate
- Day and night target detection and recognition up to 800 meters
- Adaptive seismic/magnetic activity sensors - No user calibration required
- Wireless activity sensor to gateway connections

SCORPION

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CAST Sensors



EO/IR Sensors



Comms Gateway

- Embedded GPS capability
- Intuitive graphical user interface (GUI) supports mission planning, information tracking, and remote sensor control
- Man-portable, lightweight, easy to deploy and transport in two rucksacks
- Low operating power/long battery life extends mission life up to six months
- Interoperable with legacy acoustic, passive IR, seismic, and optical sensors
- Rugged and environmentally qualified
- Over 800 systems fielded

Combined Adaptive Sensor Transceiver (CAST)

- Combines seismic and magnetic activity sensors with a two-way line-of-sight transceiver in a buried package
- Detects/classifies vehicles from 100 meters away
- Detects personnel from 30 meters away
- Cues EO and IR sensors up to 2 km away

Electro-optic (EO) and Infrared (IR) Sensors

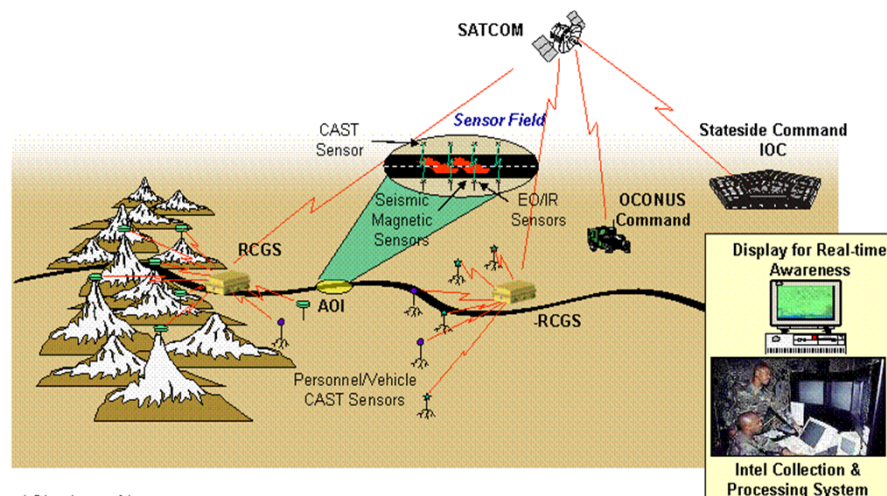
- EO and IR sensors provide persistent data and imagery to enable target classification, identification, GPS location, and actionable intelligence for targets up to 800 meters away
- Optional optical pan / tilt device (zoom capable) negates the need for large swept volume, while easing concealment and reducing system detection vulnerability

Communications Gateway

- Bi-directional secure gateway provides encrypted long haul and local RF communications to capture, process, and relay sensor data and enable remote command and control of the sensors

Ancillary Items

- Cables, antennas, concealment kits, and other items support emplacement for long duration, unattended, concealed missions.



AOI = Area of Interest
 CAST = Combined Adaptive Sensor/Transceiver
 EO/IR = Electro Optic / Infrared
 IOC = Information Operations Center
 RCGS = Remote Comms Gateway System

For more information, please contact:

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Specifications and features subject to change without notice.

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