

HARRIS

assuredcommunications

Falcon Watch™
RF-5400 Remote
Surveillance System



Heighten your *senses*.

Falcon Watch™

Remote Surveillance. All Day, All Night.

Harris knows the need for reliable surveillance systems.

Throughout the world, military and homeland security forces face an increasing need to provide safety and security to troops and high-value assets. The Harris Falcon Watch unattended ground sensors and imager are a force-multiplier solution with a network of easily deployed, remotely located products that detect the movement of personnel and vehicles.

The Harris RF-5400 Falcon Watch Remote Surveillance System is fully integrated with FALCON® II radios and are ideal for monitoring high-value assets such as troop encampments, airfields, base installations, supply routes, and depots. In larger networks, the Falcon Watch Sensor Systems can also be used to monitor and protect national borders, regional boundaries, and assets in homeland defense and peacekeeping operations.

The Falcon Watch wireless sensors are remote, battery-operated products that provide operators with critical surveillance data on a 24-hour basis. While most sensors and imagers have a battery life insufficient for remote emplacement, the Falcon Watch System's power-efficient architecture extends battery life. The Falcon Watch Remote Surveillance System is designed to minimize false alarms by filtering out naturally occurring phenomena, resulting in only valid intrusion events communicated to the command center and operators in the field.

We've integrated our sensors with FALCON® II radios.

The RF-5400 family of Sensor System products has been developed to operate seamlessly with the Harris FALCON II family of tactical radios. Alarm data from the RF-5400 sensors is communicated directly to each of the FALCON II multiband or VHF handheld radios in the network. The soldier is alerted to a sensor event via audible message or on-screen display. Other tactical and land mobile radios can also act as sensor monitors, reducing the equipment required. Larger-scale sensor systems also have the option of displaying the sensor event data on the RF-6910 FALCON II Situational Awareness system (C2PC-CNR), FBCB2, or other applications, through the RF-5410 Sensor Management Application, thereby integrating the sensor data for complete situational awareness.



System Components

Covert. Flexible. Rapid Deployment.



- Seismic
- Magnetic
- Passive infrared
- Acoustic

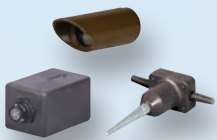
- Low-power, long-life
- Data fusion
- Low false alarms

- Secure (RF-5400V-SR)
- Synthesized voice
- GPS location data

- Audible alerts
- Position display
- Interface to SA

Detectors

The Falcon Watch family of sensor products uses robust, interchangeable modules (seismic, magnetic, passive IR) designed to detect nearby movement of vehicles or personnel. The data from multiple detectors, when used together (with RF-5400VH-MS and RF-5400V-SR sensors) can be fused at the sensor to minimize false alarms.



Sensors

RF-5400VH-SS Mini-Sensor

High-band VHF transmitter sends voice and/or data alarm from one detector (seismic, magnetic, or passive IR) in the smallest form factor to VHF receivers.



RF-5400VH-MS Multi-Sensor

High-band VHF transmitter sends combined and qualified reports from up to three detectors (seismic, magnetic, and passive IR).



RF-5400VH-AS Acoustic Sensor

High-band VHF transmitter sends acoustic array information such as vehicle or aircraft type and bearing. Sectoring reduces false alarms from ambient noise sources.



RF-5400V-SR FALCON® II Sensor/Relay

Low-band VHF transceiver sends combined and qualified reports from up to four detectors (seismic, magnetic, and passive IR). The sensor configuration can be changed after deployment. Encrypted communications provide security against spoofing and eavesdropping. The same unit can be configured as a relay.



Imagers

RF-5408 Remote Imager

The Falcon Watch RF-5408 Remote Imager provides an all-weather remote imaging capability to aid in classifying intrusions that is effective 24 hours a day, by utilizing both a Low Light Level (LLL) visible imager and an Infra-Red (IR) imager.



Long-Haul Communications

RF-5400VH-RU Relay

High-band VHF transceiver with independent transmit and receive frequencies. The relay works in conjunction with Falcon Watch mini-sensor or multi-sensor nodes to extend reach-back to command center.



RF-5405VH-GW Intelligent Gateway

The Harris Falcon Watch Intelligent Gateway provides wireless long-haul connectivity between forward-deployed Falcon Watch sensors and imagers and backend command and control (C2) centers using the Iridium Satellite constellation. The Intelligent Gateway integrates information received from tripped alarms and interprets them to provide an accurate view of the region. This accurate intelligence leads to more precise reaction.



Monitors

FALCON II Handheld Radios

The Falcon Watch family of sensor products is integrated into the FALCON II family of tactical radios to monitor the detected intrusion event via audible alerts or on-screen data messages.



RF-5410 Sensor Management Application

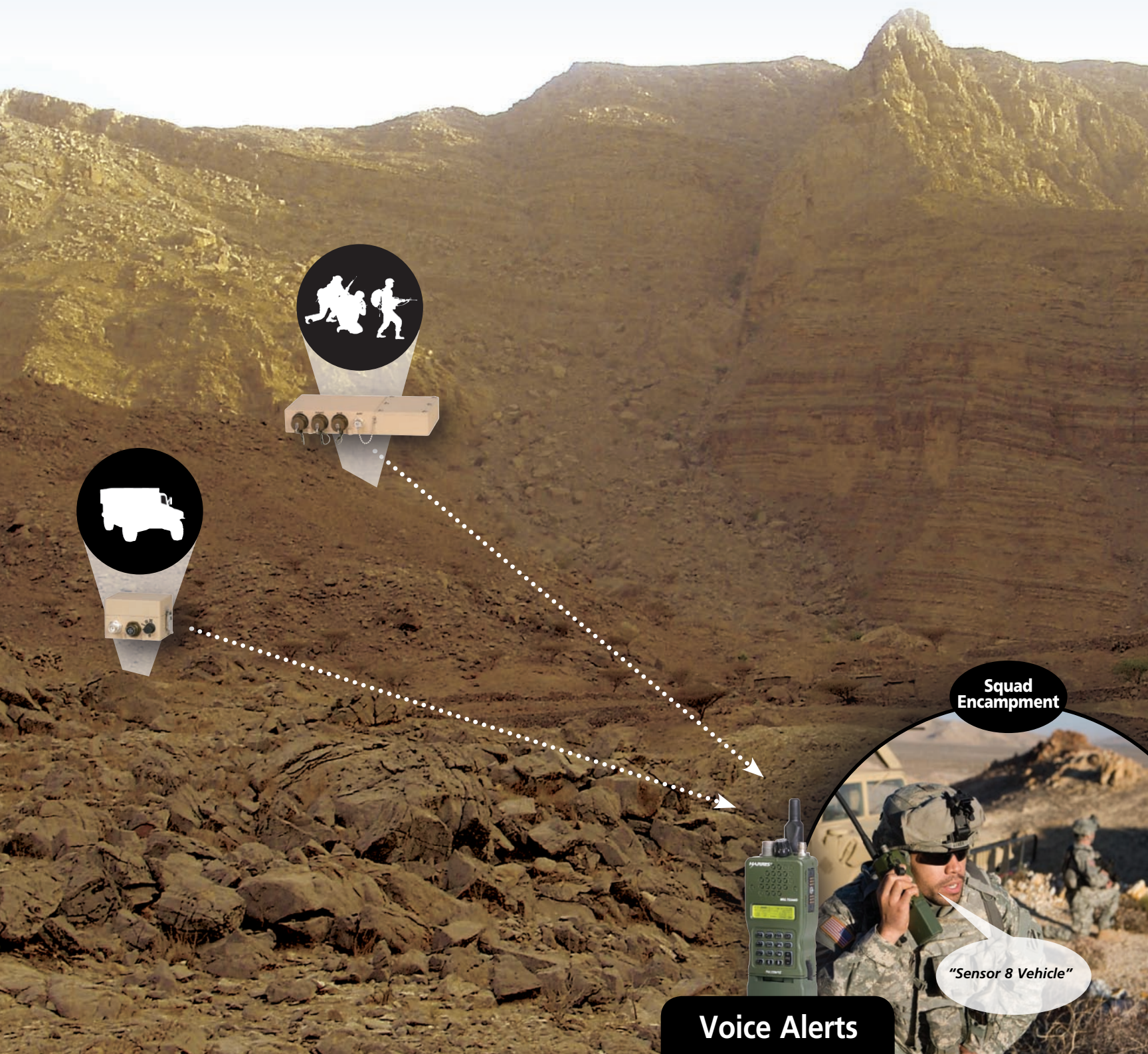
The Harris Falcon Watch Sensor Management Application software provides display of sensor alarms and imagery reported from Falcon Watch Sensors, as well as reconfiguration of these sensors after deployment. The Sensor Management Application can pass this information to situational awareness applications, such as the RF-6910 FALCON II Situational Awareness Application (C2PC-CNR).



Force Protection

Early warning at stand-off distances.

Falcon Watch™ sensors are easily and rapidly deployable, allowing for unattended protection and early warning of intrusion for teams in the field. Vigilant around the clock, the sensor nodes are deployed at choke points or specific areas of interest, such as fields, forested areas, roadways, streams, and mountain passes.



Squad Encampment

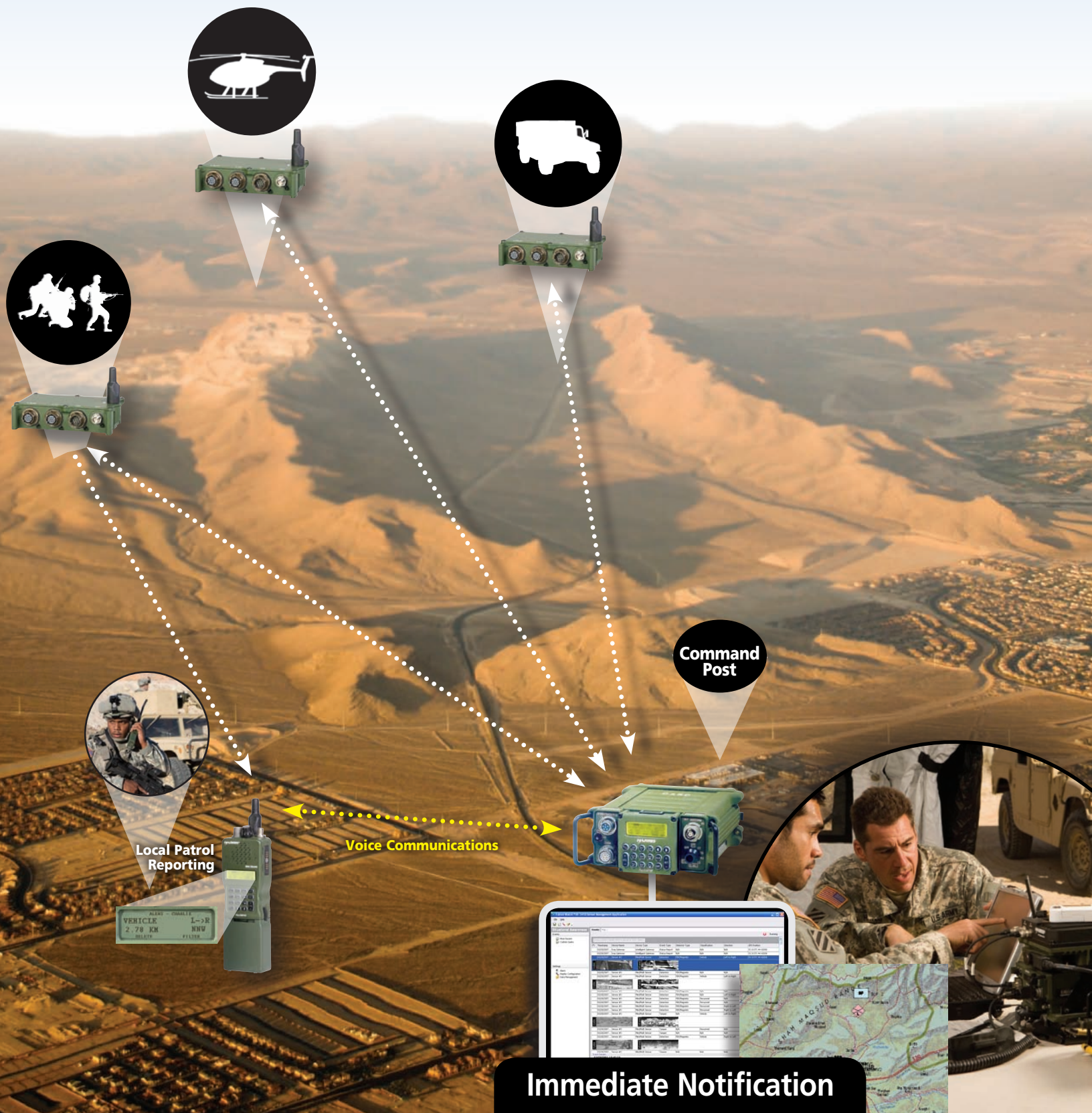
"Sensor 8 Vehicle"

Voice Alerts

Perimeter Surveillance

Real-time intrusion reporting integrated with installation security system.

Falcon Watch™ sensors can be extended to provide surveillance coverage as the first line of intrusion defense for protection of depots, airfields, operations centers, and all critical infrastructures.



Remote Monitoring

Reliable and persistent. Your eyes and ears on the ground.

The Falcon Watch™ sensor and imager products are fully scalable to create a wide area, unattended, long-life monitoring solution for remote areas such as a border, pipeline, or airstrip. Each sensor can be custom-equipped with the proper detector for the type of threat (personnel or vehicle), and the sensors are networked via RF relays or SATCOM long-haul gateways. Data and location of sensor events along with images for event classification are transmitted to command headquarters in real-time for responsive action.





RF Communications

Government

Broadcast

Wireless Transmission
Network Solutions



Communications solutions for today and beyond.

Harris RF Communications Division is a leading supplier of secure voice and data communications products, systems, and networks to military, government, and commercial organizations worldwide. Harris Corporation is an international communications and information technology company serving government and commercial markets in more than 150 countries. Headquartered in Melbourne, Florida, the company has annual revenue of about \$4 billion and more than 16,000 employees — including more than 7,000 engineers and scientists. Harris is dedicated to developing best-in-class assured communications™ products, systems, and services. Additional information about Harris Corporation is available at www.harris.com.



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