

FALCON SHIELD

ELECTRONICS DIVISION

COUNTER UNMANNED AIR SYSTEM (C-UAS)



Falcon Shield is a rapidly deployable, scalable and modular system designed to address the threat from low, slow and small unmanned air systems (UAS).

Falcon Shield's flexible configurable system enables highly accurate detection, tracking, identification, geo-location and mitigation of UAS threats through a complimentary, fully integrated suite of sensors and effectors.

Falcon Shield's software Command, Control and Situational Awareness (C2SA) environment provides a modular integration framework and intuitive user interface enabling comprehensive monitoring of the UAS threat environment and delivery of effective threat mitigation. Customer specified and third party equipment can be readily integrated into the system.

The framework enables the Falcon Shield system to be tailored and optimised to meet the demands of varied locations, threats and end-user concepts of operation.

Utilising specialised radar and Electronic Surveillance Measures (ESM) covering 360°, UAS threats are rapidly detected, tracked and prioritised. Falcon Shield exploits the company's range of high-performance Electro Optical (EO) sensors and advanced Radio Frequency (RF) effector technology enabling threats to be confirmed and neutralised at range and providing a shield around the area being secured.

APPLICATIONS

- › Security and protection of military forces and bases
- › Protection of critical infrastructure and facilities
- › Safety at public, national and government events
- › Fixed, relocatable or deployable configurations
- › Sector, zonal or wide area security and surveillance

OPTIONS

- › Fixed installation with a central C2SA station with distributed fixed or relocatable sensor and effectors
- › Flexible, deployable systems with C2SA dismountable form or integrated into Mobile Surveillance Vehicle (MSV) with ground or trailer based mast systems for extended range sensor and effector capability
- › Deployable systems with man portable C2SA with round or mast mounted sensors for agile and rapid deployment
- › Combination of electro-optics, electronic surveillance and radar sensors to enable an optimised solution for specific installations or deployments
- › Advanced electronic attack capability to deny, disrupt or defeat UAS command, control, navigation and UAS data downlinks
- › Open architecture enables through-life capability enhancement and supportability
- › Training and support packages

KEY FEATURES AND USER BENEFITS

COMMAND, CONTROL AND SITUATIONAL AWARENESS (C2SA)

Intuitive Human Machine Interface (HMI)
Automated threat detection and tracking

Open-standards IP based control interfaces
Geospatial Information Systems

Ease of use, low user fatigue and training needs
Minimises operator workload
Maximises situational awareness with low false alarm rates
Easy interface with existing customer infrastructure
Enables accurate geo-location of threat for hand-off to effector, counter-measure or external actor

RADAR

Open-standards IP and ASTERIX radar interfaces
Continuous 360° or sector coverage
Federated or integrated radar solutions

Enables radar selection appropriate to deployment
Enable panoramic or sectors surveillance and alerting
Enables integration with existing air defence radar installations or as a stand-alone system

HIGH PERFORMANCE ELECTRO OPTICAL (EO) SYSTEM

NERIO-ULR Gyro-stabilised EO payload with 360° coverage

Family of EO payloads

High-resolution thermal and visible band cameras

Eyesafe laser range finder

Operation on ground or mast/tower mounted to minimise blind arcs and inter-visibility constraints
Solution for both close-in, e.g. urban canyons and long-range surveillance and threat identification
Enables threat evaluation and confirmation at beyond effective threat range
Aids accurate geolocation of UAV controller location when identified via EO sensors

RF MANAGEMENT

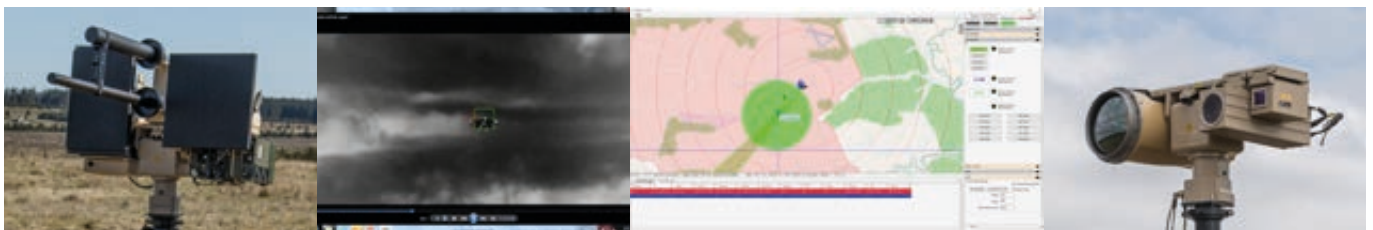
Electronic surveillance and attack

Electronic Surveillance to provide detection and tracking of threat elements
Integration of a low collateral Electronic Attack capability to provide a multi-layered threat response through command link control intervention

FLEXIBLE DEPLOYMENT SOLUTIONS

Modular and scalable system architecture
Multiple EO and RF sensors capability
Rugged design

Configurable as a fixed, relocatable or deployable system
Ability to optimise sensor locations and coverage
Enables deployment in a broad range of operational requirements across a global environment



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