

Falcon Shield

Counter Uncrewed Aerial Systems (C-UAS)

Falcon Shield is a rapidly deployable, scalable and modular system designed to address the threat from low, slow and small 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)	Ease of use, low user fatigue and training needs
Automated threat detection and tracking	Minimises operator workload
	Maximises situational awareness with low false alarm rates
Open-standards IP based control interfaces	Easy interface with existing customer infrastructure
Geospatial Information Systems	Enables accurate geo-location of threat for hand-off to effector, counter-measure or external actor

Radar

Open-standards IP and ASTERIX radar interfaces	Enables radar selection appropriate to deployment
Continuous 360° or sector coverage	Enable panoramic or sectors surveillance and alerting
Federated or integrated radar solutions	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	Operation on ground or mast/tower mounted to minimise blind arcs and inter-visibility constraints
Family of EO payloads	Solution for both close-in, e.g. urban canyons and long-range surveillance and threat identification
High-resolution thermal and visible band cameras	Enables threat evaluation and confirmation at beyond effective threat range
Eyesafe laser range finder	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	Configurable as a fixed, relocatable or deployable system
Multiple EO and RF sensors capability	Ability to optimise sensor locations and coverage
Rugged design	Enables deployment in a broad range of operational requirements across a global environment

For more information:
 infomarketing@leonardo.com

Leonardo Electronics
 Sigma House - Christopher Martin Road - Basildon - Essex SS14 3EL - United Kingdom
 T +44 (0) 1268 522822

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