



ELECTRONICS DIVISION

FALCO FAMILY OF UAS

GLOBAL SURVEILLANCE
ENHANCED AWARENESS



OUR HERITAGE IS OUR FUTURE

Leonardo is the only European manufacturer and one of the few in the world that can deliver full end-to-end solutions for tactical ISTAR, from platform to mission system and ground control as well as a full range of in-house advanced sensors that have been selected for over twelve remotely piloted aircraft types.

With 70 years of experience in the field, our RPAS are highly reliable and operationally proven with five international customers.

The Falco XN, medium-altitude, medium-endurance surveillance platform, is the forerunner of a complete family of systems designed to perform persistent and multipayload ISR missions in difficult areas, integrating any national C4I network.



FALCO, A FAMILY OF SOLUTIONS

Falco is a family of RPAS specifically designed to offer a flexible, customised, ISTAR asset, easy to deploy, transport and maintain.

It includes two platforms:

- Falco Evo, for Heavy Tactical ISTAR missions
- Falco Xplorer for Strategic ISTAR missions

For customers that choose not to own and operate an unmanned ISTAR system, Leonardo offers a Turnkey Falco Service, where Leonardo handles all aspects of operation, flying the RPAS directly and providing the customer with the actionable intelligence they require.

A Falco system typically includes a Ground Control Station (GCS), a Ground Data Terminal (GDT) and a Ground Support Equipment (GSE).



Falco Evo



Falco Xplorer



ISR Services

BASIC DATA

	Endurance	Ceiling	Payload
Falco Evo	>20 Hours	6.000 m	150 Kg
Falco Xplorer	>24 Hours	8.000 m	>350 Kg

MISSION EQUIPMENT

Link Range	E/O max	SAR	ESM
LOS & BLOS (Satcom)	16"	Multimode SAR Gabbiano T20 Ultra Light GMTI	Sigint/Comint Suite
LOS & BLOS (Satcom)	25"	Multimode SAR Gabbiano T80 Ultra Light GMTI	Sigint/Comint Suite



FALCO EVO

The Falco Evo Remotely Piloted Aircraft System (RPAS) is an unmanned surveillance asset that can carry a wide selection of multispectral sensors to give reliable real-time stand-off target detection, classification, identification and shadowing, acting as a valuable information and intelligence node integral with any national C4I network.

The Falco Evo is designed for both military and dual-use requirements and provides 24/7, all-weather regional heavy tactical surveillance, covering a wide range of missions and complementing typical military roles (theatre multispectral surveillance) with government/commercial missions such as border patrol, coastal watch, law enforcement, power lines and pipelines surveillance, illegal fishery prevention and environmental monitoring.

To relieve crew workload, Falco Evo features assisted and automatic flight management, including automatic take-off and landing, and automatic area surveillance modes with associated near real time target data processing and exploitation.

The system has a very limited logistic footprint, the GCS is contained into an easily deployable shelter ISO-STD 20 ft. Falco Evo couples Higher-tier performance at lower life cycle cost and is completely ITAR free.

PAYLOADS

- Gabbiano T20 Ultra Light SAR Radar.
- Ground Moving Target Indication
- EO turret up to 16"
- Laser Marker; Laser designator (LD)
- AIS (Automatic Identification System)
- ESM: COMINT SIGINT
- SATCOM





FALCO Xplorer

The Falco Xplorer RPAS is the latest addition to the Falco family, designed for persistent multi-sensor strategic surveillance.

Falco Xplorer is a new, state of the art system, that provides Customers with persistent actionable Intelligence Surveillance and Reconnaissance (ISR).

The large payload volume, the highest in its segment, can accommodate a broad multispectral sensor suite. The basic suite includes a multifunction Synthetic Aperture Radar, an electro-optical multi-sensor gyro-stabilised turret and a Signal Intelligence Suite.

Customers benefit therefore from an unparalleled situation awareness capability for maritime and overland ISR missions, easy to adapt and customise.

The Falco Xplorer system is aimed at military and dual-use requirements providing 24/7, all-weather persistent regional surveillance. It is ideally suited for military missions like theatre persistent multispectral surveillance, and for governmental missions such as border patrolling, coastal watch, law enforcement, critical infrastructures surveillance, EEZ surveillance and environmental monitoring.

The Ground Control Station enables mission planning and rehearsal, pre-flight system check, mission management, flight plan re-tasking, mission playback and simulation for crew mission training.

It provides command and control in real time via a secure satellite data link, allowing operational ranges spanning far over the usual line-of-sight.

PAYLOADS

- Gabbiano T80 Ultra Light Multimode SAR Radar. Mapping, Ground Moving Target Indication
- EO turret up to 25"
- Vis/IR/Laser Rangefinder; Laser Marker and Laser designator (LD)
- AIS (Automatic Identification System)
- › ESM: COMINT ELINT
- › SATCOM





FALCO ISR SERVICE

Today, both military and civil organisations rely heavily on accurate, timely information to take actionable decisions. Information superiority is the operational advantage in this fast-changing environment.

However, performing ISTAR/ISR missions requires significant infrastructure, logistics and personnel resources, that need to be used constantly to be economically viable. For those customers who choose not to own and operate a fleet, Leonardo offers, through its fleet of Falco RPAS – Remotely Piloted Aircraft Systems, a fully turn-key service where customers receive data and information as required.

Leonardo owns the platforms and operates them following customer's indications. The customer will bear no initial investment and will not need to provide dedicated personnel. Operations management, logistics, maintenance, are all carried out by Leonardo.

Customers can select between two different Falco platforms, depending on their needs:

- Falco Evo, for Heavy Tactical Surveillance
- Falco Xplorer, for Strategic Surveillance

Payloads are defined according to the requirements of the Customer and Missions are planned according to the operational needs. Leonardo guarantees an agreed amount of flight hours.

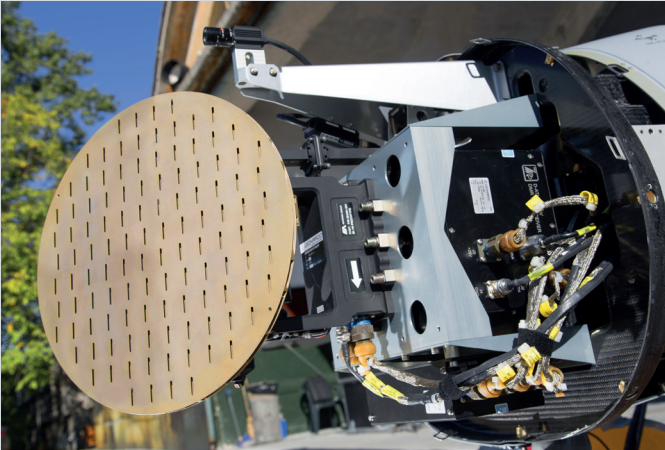
With the Leonardo Turnkey Falco Service, Customers can focus on the exploitation of the information provided and on making tactical and strategic decisions accordingly.

The multi-sensor information gathered by the Falco RPAS is combined to offer a highly detailed picture that can be shared in real time with other players in the operational scenario to build a common picture.

Leonardo has a proven track record of turnkey services with international organisations worldwide. Whatever the requirement, Leonardo is available to offer a Service that can be integrated into the civil airspace and is immediately ready to work in collaboration with military and law enforcement organisations.



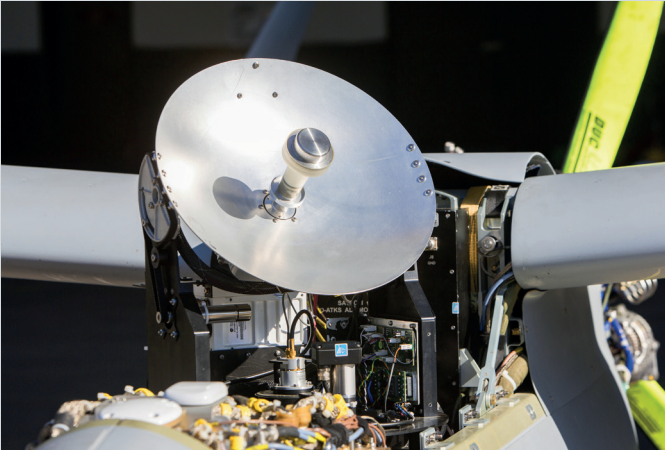
MAIN SENSOR OPTIONS



Surveillance Radar



Electro-Optic System



SATCOM



SAGE ESM



Spider COMINT



AIS - Automatic Identification System

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MM09053 01-20
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