

FALCO XPLORER

RPAS - REMOTELY PILOTED AIRCRAFT SYSTEM



FALCO Xplorer Remotely Piloted Aircraft System (RPAS) is the new Leonardo solution for persistent multisensor strategic surveillance.

FALCO Xplorer is a new, state-of-the-art system, able to provide Customers with persistent actionable Intelligence Surveillance and Reconnaissance (ISR).

A broad multispectral sensor suite can be installed thanks to its payload capability. The suite is natively composed by a multifunction Synthetic Aperture Radar (SAR), an electro-optical multisensor gyrostabilized turret and a Signal Intelligence Suite. Customers benefit therefore from unparalleled, customizable situational awareness.

Powered by a conventional aviation engine and with endurance over 24 hours, the FALCO Xplorer gathers informations far over the horizon, relayed in real time via secure satellite connection to C4I centers.

Typical system configuration includes a Ground Control Station (GCS) connected to a Ground Data Terminal (GDT), a Ground Support Equipment (GSE) and two Aircraft.

The system is designed in accordance with NATO STANAG 4671 and is undergoing military type certification.

Relocation of the FALCO Xplorer system is not an issue for our Customers, the logistic footprint is in fact kept to minimum: the whole system can be relocated via ISO-668 air transportable containers in matter of hours.

Legacy from the proven FALCO EVO and other major RPAS programs, the FALCO Xplorer system is aimed at dual-use requirements providing 24/7, all-weather persistent regional surveillance, covering a wide range of missions and complementing typical military roles (theatre persistent multispectral surveillance) with governmental missions such as border patrolling, coastal watch, illegal immigration prevention, law enforcement, critical infrastructures surveillance, EEZ surveillance and environmental monitoring.

KEY FEATURES

- Maritime and Overland, long range, ISR missions
- Operates for over 24h, up to 30,000 ft
- Low Overall Life Cycle Costs
- Undergoing Military Type Certification according to STANAG 4671
- Payload capability at the top of its segment: 350Kg

THE AIR SEGMENT

The FALCO Xplorer presents superior performances together with a flexible configuration able to accommodate several sensors and payloads.

To relieve crew workload, the system features:

- ›assisted and automatic flight management, including automatic take-off and landing,
- ›automatic area surveillance modes with real time target data processing, dissemination and exploitation.

The System can be easily adapted to meet Customer's needs and to integrate specific payloads.

Seamless airport and airspace operations integration and reduced logistic foot-print are also key features of the FALCO Xplorer, thus delivering Higher-tier performances at lower LCC compared to similar class systems.

GROUND CONTROL SEGMENT

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.

The surveillance flight plan is typically flown automatically along the preprogrammed route including the take-off and landing phases, with the possibility to perform manual override any time during the flight.

The Ground Control Station is also capable of off-line data evaluation and processing, for further diffusion through the C4I network in STANAG format.

Real-time data can also be received by small front line units via Remote Video Terminals (RVT).

TECHNICAL SPECIFICATIONS

DIMENSIONS

| | |
|------------------|--------|
| Length: | 9m |
| Wingspan: | 18.5m |
| Height: | 3.8m |
| MTOW: | 1300kg |

PERFORMANCE (ISA)

| | |
|---------------------|----------------------|
| Endurance: | >24h |
| Max Payload: | >350Kg |
| Ceiling: | >30.000ft |
| Link Range: | RLOS & BLOS (SATCOM) |

SENSORS

- Gabbiano T80UL: Multimode SAR Radar Mapping, Ground Moving Target Indication, SAR up to 20"
- EO turret: Vis/IR/Laser Rangefinder; Laser Marker and Laser designator (LD) upon request
- SIGINT: ELINT or COMINT suite
- Automatic Identification System: (AIS)

For more information:
nicola.gambini@leonardo.com

Via M. Stoppani, 21 - 34077 Ronchi dei Legionari (GO) - Italy
T +39 0481 478111



leonardo.com

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