

AIRCRAFT DIVISION

FALCO EVO

UAS System



The FALCO EVO UAV system is a persistent unmanned surveillance asset able to carry a wide selection of multispectral sensors suites allowing reliable real-time stand-off target detection, classification, identification and shadowing, becoming a valuable information and intelligence node integral with any national C4I network.

It leverages directly on the FALCO System's proven mission reliability record, delivering superior performance (multipayload capability, endurance and mission range) that matches higher end UAS's.

Typical system configuration includes a Ground Control Station (GCS) connected to a Ground Data Terminal (GDT), a Ground Support Equipment (GSE) and typically three air vehicles with associated mission payload suites tailored to customer's needs.

The FALCO EVO's specific characteristics of deployability, multi-mission capability, mission endurance and reduced logistic footprint represent a true and effective system solution, providing valuable LOS/BLOS targets detection, tracking and identification in ground, littoral and maritime environments.

Alongside the operationally proven FALCO, the FALCO EVO UAV 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 government/ commercial missions such as border patrol, coastal watch, immigration prevention, law enforcement, power and pipelines surveillance, illegal fishery prevention and environmental monitoring.

The platform is able to carry a wide selection of mission payloads including Electro-Optical (EO)/Infrared (IR)/Laser Range Finder (LRF)/Laser Designator (LD), Synthetic Aperture Radar (SAR), passive and active Electronic Warfare (EW) equipment with the ability to carry combined payload suites function of the mission task, including SATCOM operations.

FEATURES

- The FALCO EVO presents significant performance enhancements guaranteeing the same FALCO System reliability reliance by adopting the same established fault tolerant architecture along EASA Airworthiness guidelines
- To relieve crew workload, the system 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
- Wide selection of multi-payload configurations for multitask and BLOS operations
- The System can be easily adapted to meet customer's requirements and mission payloads
- System mobility, seamless airport operations integration and reduced logistic foot-print
- Higher-tier performances at lower LCC
- ITAR free.

GROUND CONTROL STATION

The common FALCO/FALCO EVO Ground Control Station enables mission planning and rehearsal, pre-flight system check, mission management, flight plan re-tasking, mission playback and simulation for operator training. 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 capable of off-line target data evaluation and processing, for further data diffusion through the C4I net in STANAG 4609 format. Real-time data can also be received by small front line units via Remote Video Terminals (RVT).

The Ground Data Terminal provides a real-time data link range in excess of 200Km between the Ground Control Station and the in-flight FALCO EVO air vehicle, via a redundant C&C data link and jamresistant (option) data/images transmission in real time. If required, a SATCOM equipment (option) allows BLOS surveillance.

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TECHNICAL SPECIFICATION

PHYSICAL

Air vehicle length	6.2m
Wing span	12.5m
Height	2.5m
MTOW	650Kg

PERFORMANCE (ISA CONDITIONS)

Endurance	20+ hours
Max payload weight	in excess of 100Kg
Ceiling	6000m
Link range	200+ Km (extendable with relay capability, GCS handover function or SATCOM)

PAYLOAD

• EO/IR/LRF
• Laser Marker
• Laser designator (LD)
• SAR (Synthetic Aperture Radar)/GMTI
• Multimode Surveillance Radar
• AIS (Automatic Identification System)
• ESM
• COMINT
• Relay Package
• Hyperspectral sensor
• SATCOM.



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MM07818 01-17