



SILENT FALCON™

UAS TECHNOLOGIES

"FLY SILENT, FLY LONGER, SEE MORE"



The patent pending **Silent Falcon™** is a solar/electric, all composite, modular small Unmanned Aircraft System (sUAS) designed for commercial, civil, public safety and ISR applications. With Silent Falcon's™ solar electric propulsion system, rugged composite structure, and three interchangeable wing configurations, it is the first sUAS capable of meeting the long endurance mission profiles required by commercial, civil, public safety and military operators.

The Silent Falcon™ sUAS has the following qualities:

- Extraordinary flight endurance
- Long range
- Thin film photo voltaic (TFPV) solar energy collection and LiPo batteries for energy storage
- Payloads: Orion HD25 EO/IR, Discoverer MWIR, XCAM Photogrammetric, FalconVision™ EO/IR
- Other mission specific sensors available 2015 – Hyperspectral and Multispectral Imager, LIDAR
- Unified Ground Control System
- Silent and highly efficient propulsion system - undetectable at less than 200' AGL
- Lightweight carbon fiber composite structure
- 3 interchangeable wing sizes to easily adapt to mission endurance requirements
- Logistically autonomous



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The Silent Falcon™

sUAS is available with mission specific easily changed sensors, including the Trillium Orion HD25 EO IR, Discover MWIR, XCAM Photogrammetric and the patent pending FalconVision™ High Definition EO IR. **Silent Falcon™** provides superior imagery and data which combined with lengthy flight endurance, extended range mission capabilities, and its silent operation allows the operator to get much closer to the target—less than 200’ AGL—without being heard, for a “closer look” and exceptional ground situational awareness.

The **Silent Falcon™ sUAS** includes state of the art ground control and communication systems, and with its custom sensors and silent propulsion system, the **Silent Falcon™** is the sUAS that

***Flies Silent,
Flies Longer
and Sees More.***



Silent Falcon™ sUAS Standard Specifications	
Payload	Choice of payloads including Trillium Orion HD25 HD EO/IR sensor, Discoverer MWIR sensor, XCAM Photogrammetric sensor, FalconVision™ HD EO/IR sensor. Hyperspectral Imager sensor, Multispectral Imager sensor, Aeromagnetic and LIDAR sensors available later in 2015
Range	15 km can be extended to 100+ km with optional ground antenna
Endurance*	5 to 10+ hours depending on wing configuration
	<i>*Maximum endurance rating is based on optimal flight conditions and profiles. Weather, flight profile and environmental characteristics could adversely affect flight endurance ratings as much as 20 to 30%. Night ops endurance 3 - 5 hours depending on wing configuration.</i>
Speed	32-112 km/h, (17 knots - 45 knots), loiter speed ~ 20 knots
Operating Altitude	200 ft. (60 m) AGL to 20,000 ft. (6,100 m) MSL
Wingspan	SF-S - 2.7 meters, SF-M 4.3 meters, SF-L 5.1 meters
Length	2 meters including prop and spinner
Weight	12.3kg(s), 13 kg(m), 13.5kg(l)
Autopilot	MicroPilot MP 2128 g2
GCS	Horizon Unified Ground Control Station
Communications	Microhard Nano DDL 12 Mbps Multiple Frequencies Available
Antenna	Aircraft: Blade Ground: Omni Directional
Launch/Recovery	Catapult launch, parachute recovery
Fuel Source	Electric (Li-Ion Battery)/Solar (TFPV)
Production Status	Delivery within 4 months of contract signing

Options:

Transponder	Mode S with ADS-B Out
Comm Systems	Persistent Systems Gen 4 Wave Relay MANET
Ground Antennas:	Various Options of Ground Antennas to Extend Range
Launch/Recovery	Wheeled

