



The MI-1 is a portable short-range recon (SRR) drone, ideal for monitoring high-risk situations where decisions need to be made quickly. The system is designed to make minimal noise for covert day and night observation.

The frame and propellers of the Martlet MI-1 are all built with aviation-grade

carbon composite, kevlar, and glass fiber materials - because every 1% counts..

AIRCRAFT OPERATING ENVELOPE

FORM FACTOR	L	W	Н	
Frame size	40	40	15	cm
Frame size folded	28	20	15	cm
Proppeller size		13		inch
Empty weight		1000		grams
Weight with battery		1450		grams
Max take-off weight		1600		grams

ENVIRONMENT

Operational temperature	-20 - +50	°C
Precipitation	IP54	



SPEED

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Max wind speed	25	knots
Max airspeed	35	knots
Max speed	18	m/s
Cruising speed	9	m/s
Ascent speed	4	m/s
Descent speed	3.5	m/s

ENDURANCE MAX & WITH PAYLOADS

Max flight time	45	min
DragonEye [3X]	40	min
X80	40	min

PERFORMANCE

Covert distance (sound)	120*	meter
Typical deployment time	<1	min
Typical radio range (RLoS)	5	km
Theoretical range	45	km
* At 120m AGI		

ALTITUDE LIMITS

AMSL	2000	meter
AGL	500	meter

MARTLET GROUND CONTROL STATION

GENERAL SPECIFICATIONS

System	 Intel® Tiger Lake i5-1145G7E 8GB LPDDR4x RAM 64 to 512GB M.2 2242 SSD storage USB 3.1 type C ports (x2)
Durablity	IP65, MIL-STD-810H and MIL-STD-461G certified
Display	8"(1280 x 800) TFT LCD 1000 nits Stealth and night mode Glove touch Gorilla Glass 3
Battery	10.8V, 4800mAh (51.8Wh)Support fast charging3 hours endurance
Charger	USB-C adapter 65W, 100-240V AC, 50/60Hz

MARTLET GCS

The ground control station (GCS) is a portable unit equipped with MIL-STD components, built for one person operations in all weather conditions. The Martlet GCS is designed for maximum comfort, durability and effectiveness and is interoperable on all Martlet UAV systems. All flight critical functions are reachable by MIL-STD joysticks, switches and buttons. Named Areas of Interest, waypoints and search & rescue flight patterns are easily created during flight.

DATALINK SPECIFICATIONS

Encryption	AES256 / AES128	bit
Frequency range	2025 – 2500 (+5000 – 5200)	MHz
Max transmitting power	500	mW
Max transmitting distance	15	km
Latency	0.1	sec

HT-SDR DATALINK MODILLE

As standard, the Martlet sUAS are equipped with the in-house developed software defined digital datalink has the ability to use a predefined custom encryption-key, to automatically "hop" between frequencies and to operate in a wide range of user-definable NATO harmonized frequency ranges:

2.0 - 2.5 GHz + 5.0 - 5.2 GHz (OPTIONAL)



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MARTLET SOFTWARE CAPABILITIES

TARGET ACQUISITION / POINTS OF INTEREST

The software shows the real-time camera footprint on the map, calculates the location of the CAM-footprint and POI in UTM, MGRS and GEO coordinates and can measure various distances that could be valuable to the men on the ground. It enables operators and first responders to maximise situational awareness through advanced aerial intelligence. The Martlet GCS software can load multiple custom (military) maps, giving operators better access to more actionable intelligence when interpreting their live video feed with one of their preloaded maps.

GNSS-DENIED FLIGHTS / DEAD RECKONING

In case of loss of GNSS/GPS or during a jamming or spoofing attack, the system automatically initiates Dead Reckoning Mode, enabling it to fly in GNSS-denied areas.



BINGO FOR MAXIMAL FOCUS

The pilot has a perfect overview of all important indicators for a safe flight. The Bingo parameter calculated the remaining mission time (time remaining before the UAV needs to go back to the home-point). This allows the pilot to fully focus on the mission. The system always ensures a timely flight back to the desired landing location.



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MI-1 PAYLOAD OPTIONS

MICRO STABILIZED GIMBALLED CAMERAS

The DragonEye and X80 are part of our family of dual EO/IR sensors, leaders in micro-stabilised gimbal mounted cameras. Built for long-range observation, the dual EO/IR and EO-only payloads offer HD image quality and unmatched X40- or X80-fold zoom to capture detailed images such as number plates and faces.

GEOLOCATION

The POI function captures the position of the camera, and its line of sight, and extracts the location of observed objects with < 10 meter accuracy to enhance real-time intelligence.





DRAGONEYE

EO resolution	1280 x 720 px
EO zoom	x20 + x2 (total x40) continious
EO HFOV	60° WFOV – 3° NFOV – 1.5° DFOV
LWIR resolution	640 x 480 px
LWIR zoom	x4 continious
LWIR HFOV	32° W.FOV – 8° DFOV



X80

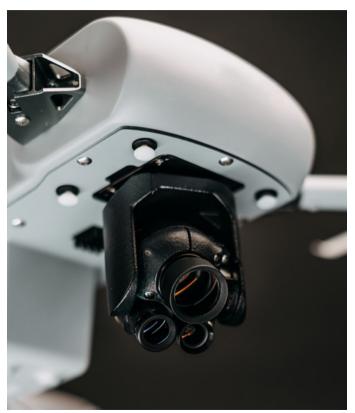
EO resolution	1280 x 720 px
EO zoom	x40 + x2 (total x80) continious
EO HFOV	60° WFOV – 1.5° NFOV – 0.75° DFOV

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DRAGONEYE



X80



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MARTLET MI-1 | SYSTEM CONTENT

RUGGED BACKPACK / UN3840 CERTIFIED TRANSPORT CASE



IN THE CASE / BACKPACK

- Martlet MI-1 UAV system
- Martlet Ground Control Station
- 3x Flight batteries (7200 mAh | 14.8 V)
- Flight battery charger
- GCS charger
- Spare props set
- Toolset







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SEE WITHOUT BEING SEEN



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