



# Invisible, Inaudible Stealth Platform for Cross-border Surveillance

## OVERVIEW

Drones are used by Military, Special Forces and Border Security Forces for ISTAR and several tactical operations worldwide. The increasing threat from Drones have resulted in the development of several drone detection and neutralising technologies in recent times.

Stealth UAVs are the next big thing in the Aerospace and defence industry. Introducing Mistral Stealth, an ultra-compact drone - *as light and undetectable as wind* - that offers unprecedented aerial surveillance capabilities and situational awareness in all weather conditions. The Mistral Stealth is capable of evading Radars and thwart human detection. With advanced technologies that reduce reflection and emission of Infrared, visible light, radio frequency spectrum, and audio waves, this ultra-compact aerial reconnaissance system gives field operators trusted eyes in the sky.

The Mistral Stealth is a rugged, secure, compact, foldable, easy to use ISR drone that fits comfortably into a backpack or military bag. The modular design and superior build quality make it ideal for a range of mission-critical operations.

The Mistral Stealth comes with advanced EO/IR Cameras with 3-axis stabilization, 48x combined zoom, 4K EO & 320p thermal, 0.01 lx low light capabilities. The Mistral Stealth offers exceptional flight capabilities of up to 50 minutes continuous flight and a flight range of up to 45 km.

The Ground Control System of Mistral Stealth provides field operators a secure, easily portable control solution. Built for rugged field performance, the GCS operates in all weather conditions. The system is secured using AES-256 data and communication encryption, NDAA compliant supply chain, and Air Force ATO certification.



## HIGHLIGHTS



Case to Launch  
in < 90 Seconds



Compact  
Foldable frame



Very low Radar and  
Noise signature



Indoor flying  
propeller cage



AES-256 communication  
encryption



Autonomous  
flight



State of the art  
Mapping software

## SPECIFICATIONS

- ▶ Flight time
  - Recon Rotor Set: 50 minutes
  - Shrouded Rotor Set: 32 minutes
- ▶ Stealth - <37 dB at 25m range
- ▶ Visibility - not visible beyond a distance of 100m
- ▶ Operational Range - 5 km
- ▶ Autonomous Flight range - 45 km
- ▶ Swappable rotor set options
- ▶ Drone route planning
- ▶ Auto mapping with geotags
- ▶ Position control sensors: Redundant GNS, GNSS, VIO, and Optical Flow for Position Control Indoors and Outdoors
- ▶ Collision Avoidance: Downward Facing Sonar, Front and Rear Avoidance
- ▶ GPS-denied flight: Capable with VIO and Optical Flow
- ▶ Flight / telemetry data recording
- ▶ AES-256 data and communications encryption
- ▶ Auto Return Home in case of link-loss & low battery
- ▶ All weather operation



## STEALTH DRONE: OPTICAL PAYLOAD

- ▶ **GIMBAL:** 3-axis stabilized
- ▶ **CAMERA:** Dual EO sensors + thermal
- ▶ **Daylight sensor:** Dual 4K sensor, 3840 x 2160 px 8 MP still images
- ▶ **Thermal sensor:** 320 x 240p un-cooled vanadium oxide with 65 mK
- ▶ **Low Light Capability:** <0.01 lx
- ▶ **Optical and Digital Zoom:** 48x combined zoom (72° - 1.5°HFOV)
- ▶ **Video Recording Format:** 1080 or 4K MPEG-4



## ABOUT MISTRAL

Mistral is a technology design and systems engineering company catering to customers in domains of Defense, Homeland Security and Product Engineering all over the world. **Mistral is a House of Special Purpose Drones.** Our Homeland Security division offers a variety of security and surveillance solutions for Command and Control, Mobile C4ISR, Drone Detection and Neutralizing, Video Analytics, Tactical Communication; designed for Special Forces, Police and Para-military for Emergency Response Management, Disaster Management and Border Surveillance.

Since 1997, Mistral has been aiding governments to upgrade and modernize Homeland Security systems with the latest technologies and equipment. Our Homeland Security solutions provide information in real-time, enabling quick decision making.



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