

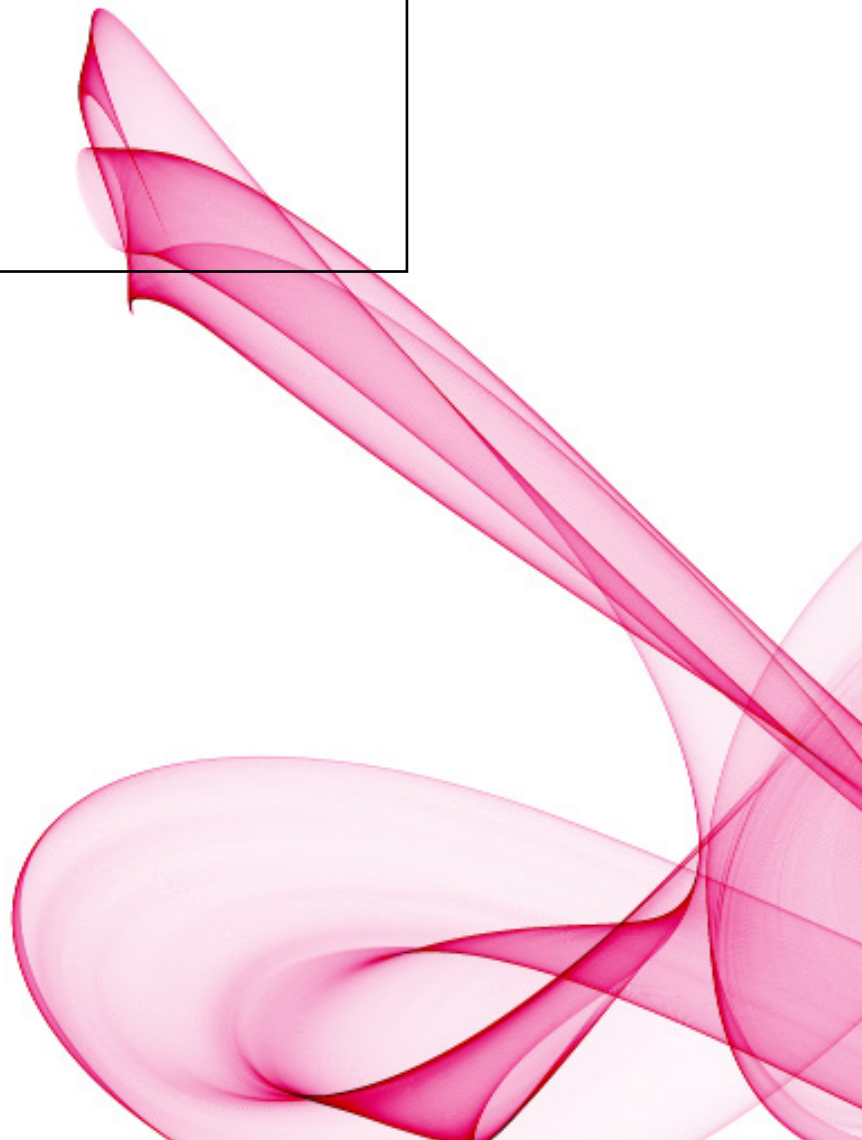


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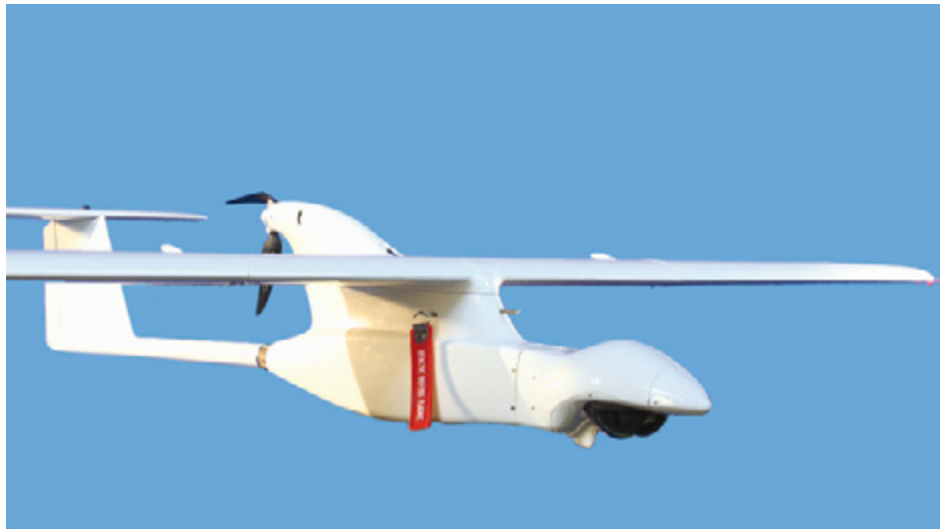
DEFENSE AND SECURITY

**MANTIS**  
**MINI UNMANNED**  
**AERIAL VEHICLES**  
**INTELLIGENCE SYSTEM**

[indracompany.com](http://indracompany.com)



# MINI UNMANNED AERIAL VEHICLES INTELLIGENCE SYSTEM



An advanced low cost solution for intelligence, surveillance, target acquisition and reconnaissance (ISTAR) missions in short range tactical operations

## MANTIS

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MANTIS is an advanced low cost solution for intelligence, surveillance, target acquisition and reconnaissance (ISTAR) missions in short range tactical operations, both day and night, requiring a rapid deployment.

MANTIS is a robust, modular and very light system, portable. The recovery is done by means of gliding at low speed. The system has automatic take-off and landing (ATOL) capacity.

MANTIS is mounting state of the art avionics and precision navigation equipment (GPS/INS), allowing manual override, with Flight Director assisted or full automatic navigation. Its capacity to control on forward and lateral motions allows Mini UAV to perform coordinated turns, being able to fix targets easily. It has a Line-Of-Sight (LOS) of 25 Km and 1 hour and a half endurance.

MANTIS transmits color images or infrared in real time to Ground Control Station (GCS) using a gyro stabilized camera. MANTIS has interfaces for integration with Command and Control Systems of operative Armed Forces.



## MAIN CHARACTERISTICS

### MISSIONS

Intelligence, Surveillance, Target Acquisition and Reconnaissance (ISTAR).

Examples:

- Air Surveillance for Armed Forces protection
- Military Operations on Urban Terrain (MOUT)
- Zone Surveillance / Convoy Security
- Law Enforcement and Civilian Support
- Patrol for Base perimeter, landing/ take-off runways...
- Target Acquisition Support

### STANDARD (RPAS) SYSTEM

- Three (3) aircrafts
- Payload: gyro stabilized camera with electro-optical and infrared sensors (EO/IR)
- Ground Control Station (GCS)
- Communications System (Data Link) with frequency hopping and STANAG 4586 compliant
- Remote Video Terminal (RVT)
- Batteries of high capacity and field charger with universal supply (AC/DC)
- Spares, Supplies, Maintenance set, Manuals
- Boxes to transport a complete UAS System

### LENGTH / WINGSPAN

- 1.48 / 2.10 m

### MAX. WEIGHT (MTOW)

- 6.3 kg

### OPERATIVE RANGE

- To 25 Km (LOS)

### ENDURANCE

- 75-90 min  
(rechargeable battery)

### VELOCITY

- 50-110 Km/h  
(observation velocity: 60 Km/h)

### NAVIGATION

- Manual override, Flight Director assisted or fully automatic (programmed and using spline navigation). GPS/INS

### LAUNCHING / RECOVERY

- Automatic Take-Off and Landing (ATOL) with bungees

### GROUND CONTROL STATION (GCS)

- Compact, ruggedized and dust and waterproof
- Intuitive Interface
- UAS Operation by one operator
- Simultaneous operation capacity of 2 RPAs
- Flight Simulator
- Video Digital Recording and screenshot capture both in GCS and RVTs
- Large autonomy (6 hours) and screen Information visible under high luminosity conditions or direct solar radiation
- Interface for Command & Control Systems Integration
- Capacity of operation on board of moving vehicles
- Possibility of RPA Command & Control Interchange from one GCS to another GCS

### PAYLOAD

- Interchangeable heads with different payloads: daylight (EO) with optical zoom x10 and nightlight (IR) with digital zoom x8 cameras

### DATA LINK C2 AND PAYLOAD

- Digital several frequencies available depending on the operation

### GROUND DATALINK TERMINAL GDT

- Version for fix configuration or for mounting on a moving vehicle, with directional antennas. Maximum range, of 25 km
- Version with low weight (5 kg) for short range operation, including directional antennas with a range of 20 km and omnidirectional antennas with a range of 10 km.
- Powered by GCS

### PORTABILITY AND DEPLOYMENT

- Complete System transportable in light waterproof and dust resistant boxes
- Mounting/Dismounting in 5-10 min

### REMOTE VIDEO TERMINAL (RVT)

- Very light (4 kg) and compact for easy transport in backpacks



ISO 9001:2000



**indra**

Avda. de Bruselas, 35.  
28108 Alcobendas.  
Madrid (Spain)  
T +34 91 627 14 50  
F +34 91 627 10 07  
infodefense@indracompany.com  
indracompany.es

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