

NT 150

The NT 150 is a flexible, highly capable tactical unmanned aircraft system, for military and homeland security applications. The NT 150 unmanned aircraft system is designed to support 'Intelligence, Surveillance, Target Acquisition and Reconnaissance' (ISTAR). The system is based on an open architecture modular design, able to carry multiple payloads. Its configuration can be easily adjusted to suite any operational requirement.

The UAV is constructed out of composite materials, providing the highest load per empty weight ratio.

The UAV is equipped with an emergency parachute which is activated in case of flight safety violations as well as special landing tactics if required during a regular flight.



unmanned aircraft systems

NT 150

GCC, MENA and Asia



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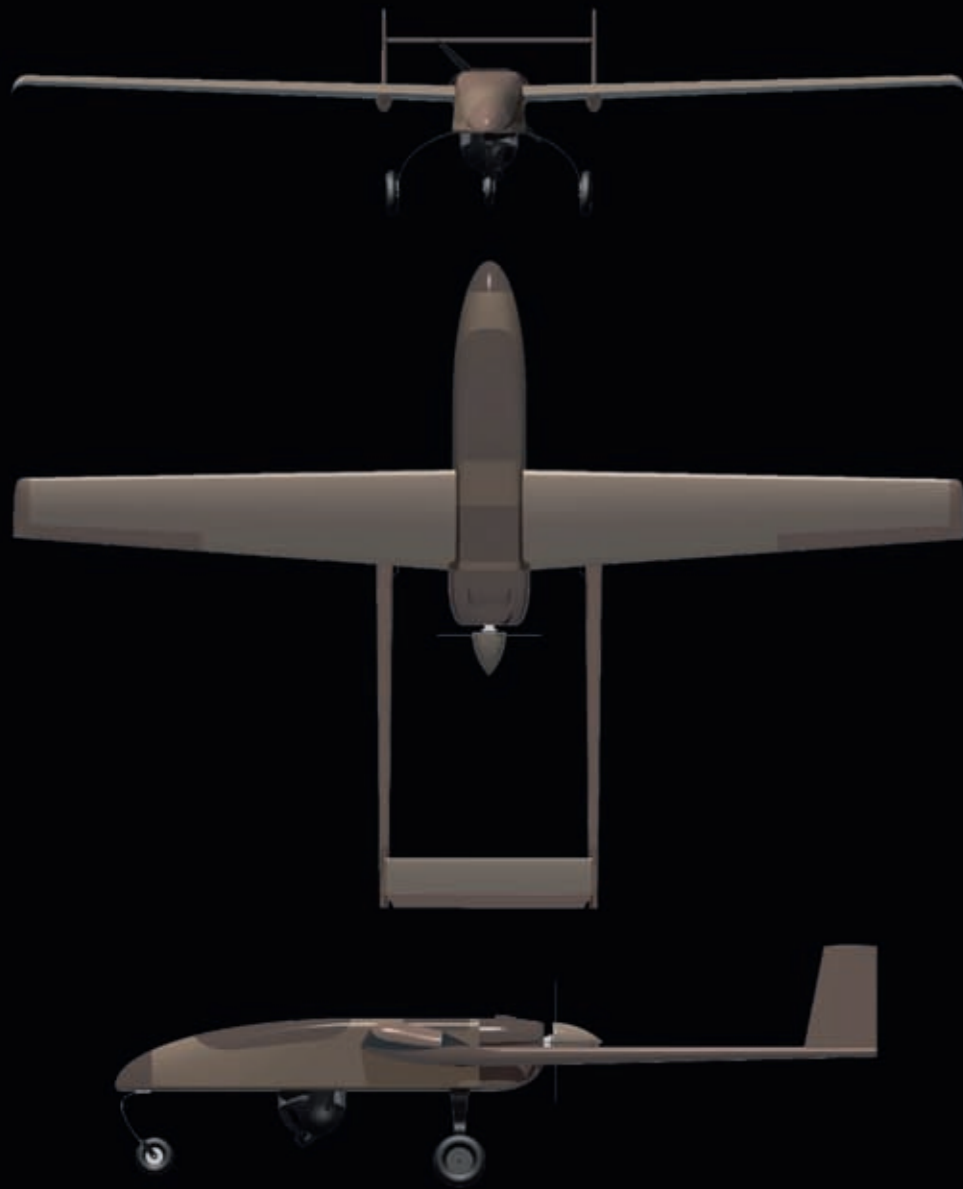


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The Future Is Here

Tactical UASystems



Technical Specifications

Performance

Service ceiling	3500 m
Operational endurance	>5 hours
LOS Datalink range	>100 km
Cruising speed	120 km/h
Maximum speed	200 km/h
Engine	20 HP

Technical data

Wingspan	450 cm
Length	310 cm
Height	100 cm
MTOW	95 kg
Max payload	40 kg
All-composite airframe	

The Future Is Here



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Remote Control (1)

The concept of the remote 'virtual cockpit' features a headset tracking system, which displays live images from the UAV and allows the 'pilot' to react instantly. The communication link has a low latency key – less than 40 ms – enabling this sort of remote piloting system to work. The pilot can switch between sign-on (autopilot) and sign-off mode (remote control) at any time.

- Pilot's helmet controls camera in UAV
- Unique, real-time remote control system (less than 40 ms delay)
- Steering from fixed base cockpit
- View out flying object
- Real-time, no-delay steering response
- Flexible head and eye adjustment

Joystick (2)

- Axes (Roll, Nick, Yaw)
- Ergonomic control stick
- High durability
- Many trims and set up buttons
- Up to 6 optional micro switches

Autopilot

The autopilot is capable of fully automatic takeoff and landing procedures, as well as following a preset flight plan. Each flight stage can be configured, e. g. adapting flaps, locking nose, parachute or taking off and landing on standard runways.

The integrated radio link allows data communication ranges in excess of

100 kilometres. Once a flight plan is loaded no ground communication is needed, this, consequently extends the range of operation beyond radio reach. However, with the manual override mechanism, the pilot has full control with a joystick over the UAV at any time. Furthermore, the autopilot can interface with the engine management / control system, in order to take full advantage of the ECU features and to supply real-time engine performance data to the ground station.

The autopilot can control up to 16 servos or peripherals. Its interface signals can be reconfigured as inputs to develop advanced features such as constant-RPM engine control or payload report signals.

COFDM Modulator / Demodulator

Despite the compact size, highest signal quality is achieved with an absolute signal delay maximum of 40 ms.

- Low system delay of up to 40 ms
- Compact size
- High performance FFT-MRC diversity
- Interchangeable RF head for other military bands
- 2.4–2.6 GHz band
- High robustness (COFDM modulation)
- High bit rate
- Programmable channel bandwidth between 5 and 16 MHz
- ASI output

Stabilized Camera System (3)

A stabilized, ultra-light miniature camera for surveillance and reconnaissance.

- Designed for small UAV's for over-the-hill applications
- Light weight (650 gr.)
- Line of sight control by the operator
- Gyro stabilized pictures independent of A/C maneuvers and vibrations
- High resolution color CCD camera with 10× optical zoom lens for day observations
- Night observation capability (optional)
- RS-232 communication link
- Highly cost effective

Optional Equipment (4)

A wide variety of cameras from FLIR payloads can be supplied to fulfil numerous mission requirements like:

- Border control
- Surveillance
- Homeland security
- Police force
- Geological mapping
- Crop spraying
- Infrastructure survey
- Pipeline patrol
- Military application

This is only a small excerpt of a comprehensive application portfolio.

UAVision (5)

UAVision is a geospatially enabled software solution to facilitate all phases of monitoring and surveillance missions. It combines state-of-the-art collaborative virtual globe technology with advanced geospatial imaging techniques and new wireless data link, supporting the combined, highly reliable transmission of digital video, high-resolution still imagery and mission control data over extended operational ranges. UAVision aids planning, simulation, monitoring and rapid mapping of any UAV mission.

Transponder

The transponder opens ATC controlled airspace by making the UAV visible to ATC controllers. The UAV operator will be able to enter an ID code which is assigned by the ATC to the transponder that in return makes the UAV identifiable. The transponder will make the UAV visible to TCAS operators under high commercial security and replies to all mode A and mode C interrogations.

