

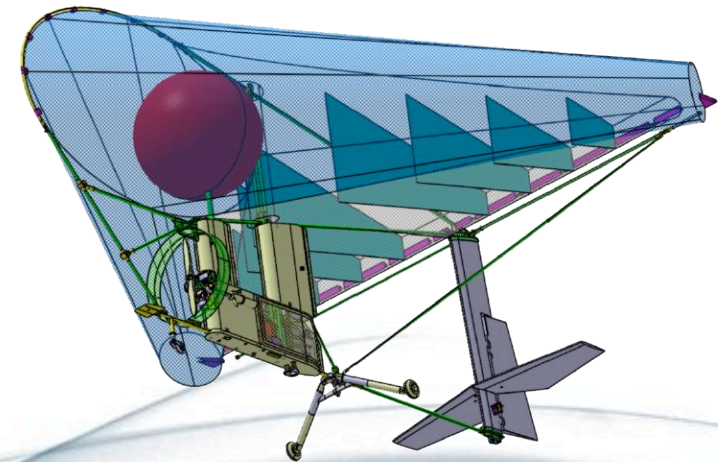
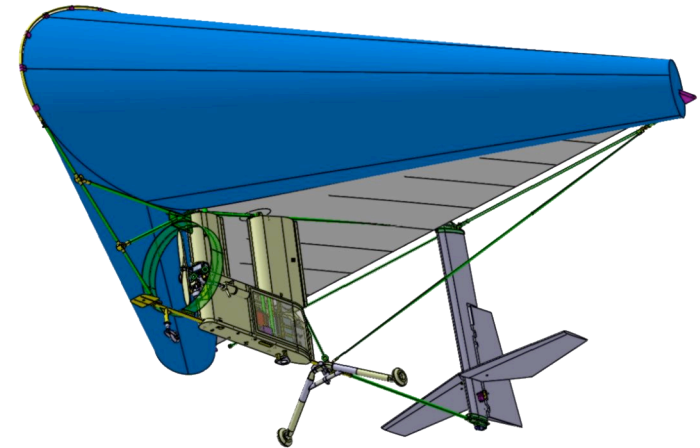
NIMBUS

*New Airborne System
for Surveillance and Advertising*

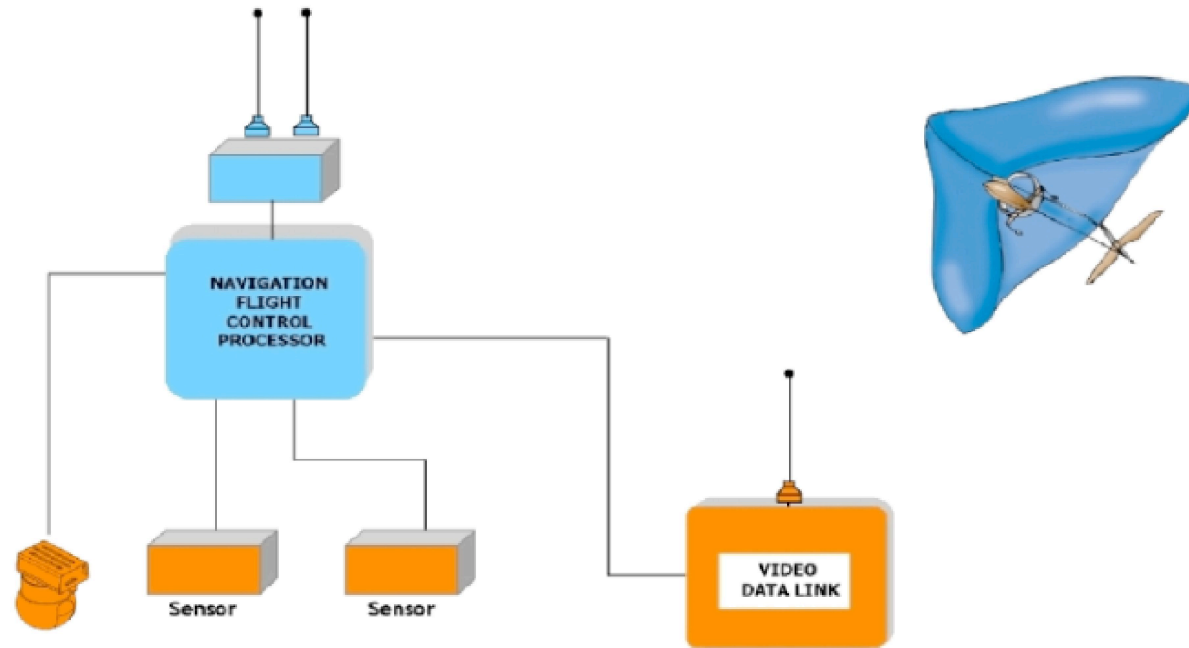


A new way of flying

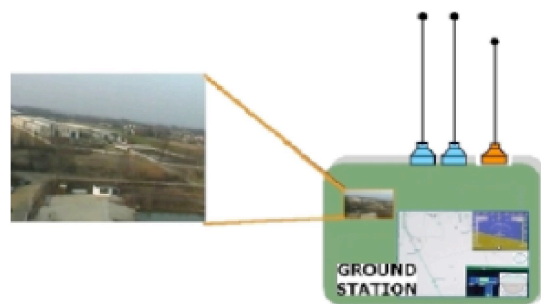
- New aerodynamics
- Hybrid solution between a conventional aircraft and an airship
- Unconventional flight dynamics
- Low speed flight capabilities
- Long endurance
- Huge amount of payload: video cameras, daylight and infrared, sensors
- Remotely piloted tool for aerial surveillance, critical infrastructures protection, fire prevention, chemical analysis and radiation detection
- Nimbus platform fills a gap in the market in terms of Endurance, Payload and speed



Nimbus UAS system



Air



Ground



GROUND EQUIPMENT

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Nimbus UAS System - Vehicle



- Total Weight: 40 kg
- Wingspan: 6,3 m
- Speed range: 5 - 50 km/h
- Altitude: 50 - 300 m
- Endurance: 1 hr
- Take off/Landing: < 8 m
- On-board avionic system



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Nimbus UAS System - Ground Control Station

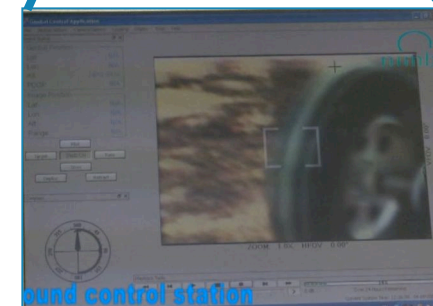
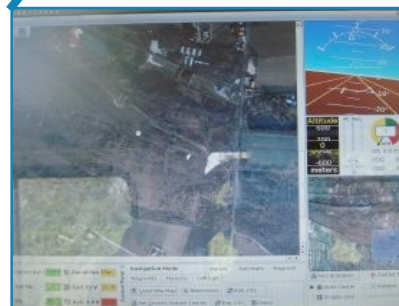
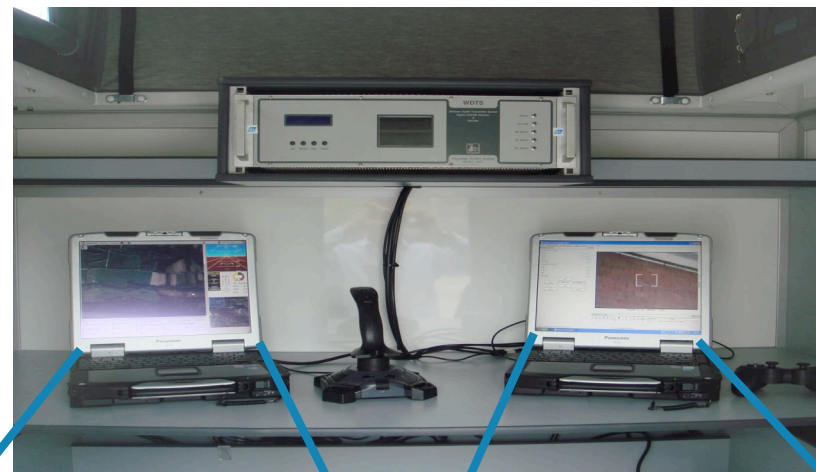
Control Ground Station

Air vehicle Control Station

- Rugged notebook
- Positioning information coming from GPS
- Continuous up and down data link
- UAV real time telemetry and on line diagnostic
- GUI solution
- Unlimited number of waypoints
- Fail-safe procedure

Payload Control Station

- Rugged notebook
- Video telemetry
- Real time recording and playback
- GUI solution
- Ground based object tracking (POI) and video stabilization



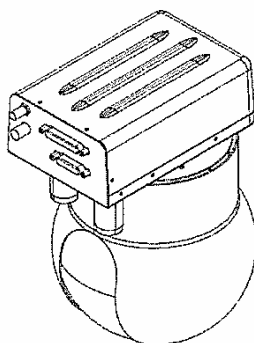
Nimbus UAS System - Payload

T GIMBAL

A very small inertially stabilized gimbal ideally suited for airborne applications.

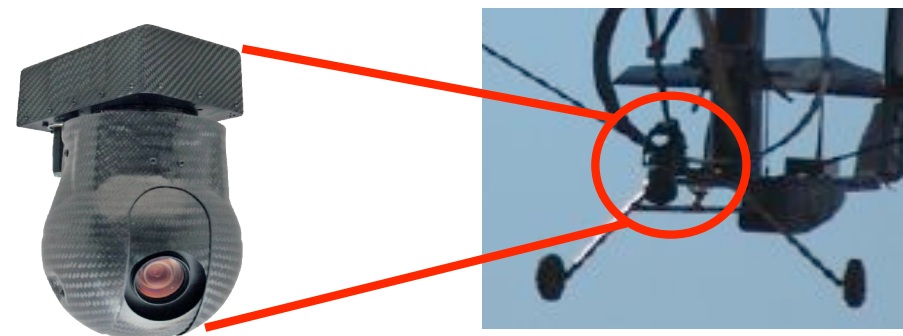
Key Features:

- Novel design minimizes the rotating mass and turret size
 - 112 mm diameter turret.
- Payload bay environmentally sealed
- Includes inertial sensors and GPS receiver for standalone operation.
- Operational temperatures -20°C to +70°C
- Three operation modes:
 - Pilot
 - Stabilized
 - Lat/Long/Altitude



Gimbal performances:

- Rotation:
 - Continuous pan
 - Tilt: + 23° / -203°
- 200°/sec slew rate
- 0.05° pointing resolution



Cameras specifications	Image resolution (Pixels)	Lens Optical	HFOV (deg)
<i>Day-light cameras</i>	380K	18x	48.0°-2.8°
	380K	36x	47.8°-1.7°

If required, the Gimbal system can be equipped with different types of IR cameras

COFDM radio data link

The radio data link transmit to a ground station or to a lightweight man portable station the MPEG encoded video signals.



Radio data link features

- ASI input/output
- Frequency bands: 1.9 to 2,4 GHz
- Video encoding:
 - MPEG2 - H264 (HD) - DVB/T-H
- Power output: +30 dBm
- L.O.S Range
 - 3-10 km options
- 6 Mbit/s



Key Competitive Features

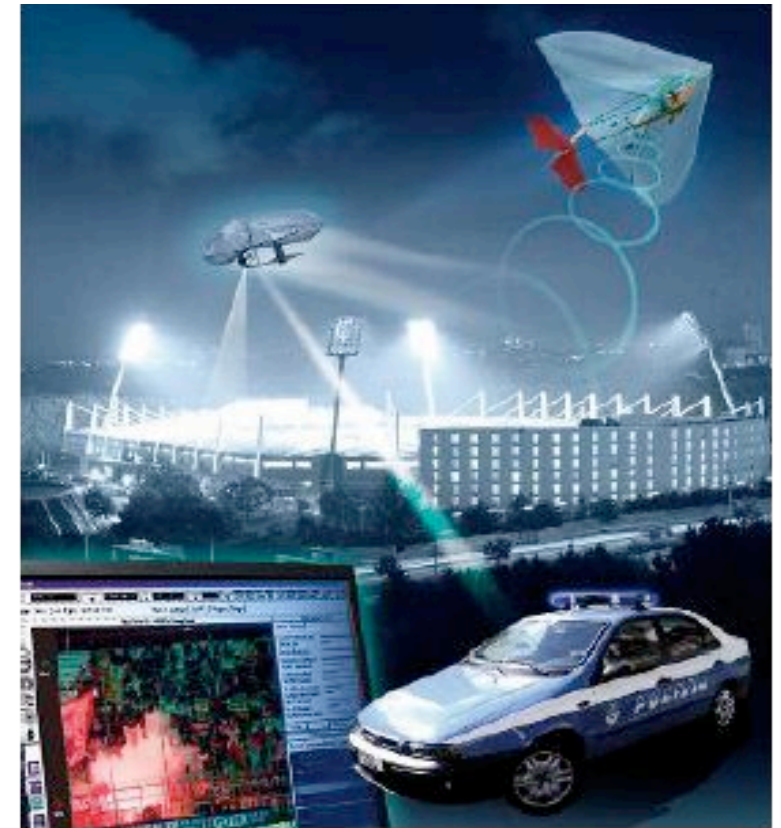
- Stable and Easy to Pilot
- Safe and Easy to Use
- Wide Range of Employable Payloads
- Extremely Short Take Off and Landing Capabilities
- No Runaway required
- High Endurance
- Low Operating Costs
- Operating readiness
- Suitable for dirty, dull and dangerous missions
- Worldwide International Patent



Missions

Aerial Survey, Agriculture and Advertising

- Aerial Publicity, Promotion and Advertising
- Topographical and Cadastral monitoring
- Architectonic
- Archaeological
- Pesticide and Crops monitoring
- Silviculture
- Livestock management

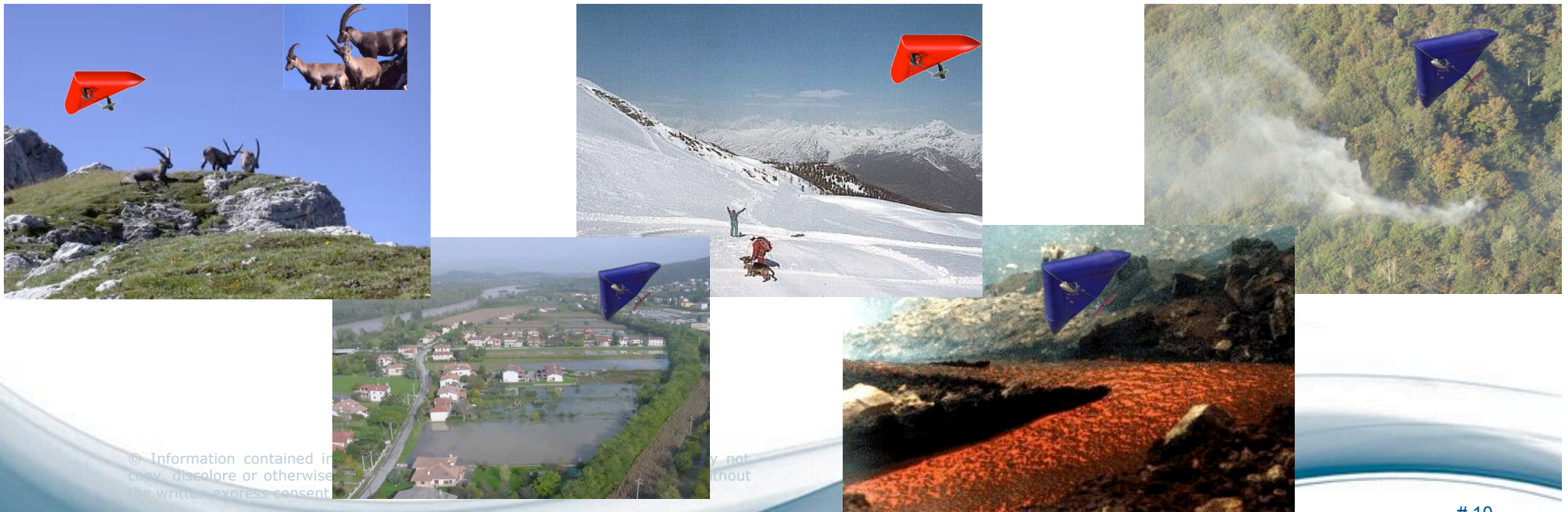


Source :SELEX COMMUNICATIONS

Missions

Environment Resources Monitoring

- Water quality analysis and monitoring
- Urban Pollution Detection
- Contaminating substances analysis
- Floods, Heartquakes and other Natural Risks management



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Missions

Critical Infrastructure Protection

- Powerlines and Pipelines
- Dams & dikes
- Bridges and flyovers
- Industrial areas
- Harbours



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