BHE UAV Family

Ground Control Software



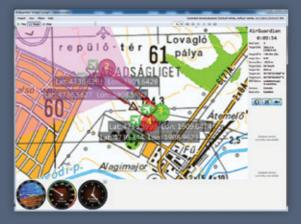
- User friendly GUI with displayed main flight parameters such as speed, altitude, horizon, status of battery, wind map, navigation data and video
- Easy to use
- Easy route planning up to 500 waypoints
 User defined chart or satellite photo for mission tracking
- Capability of real time mission modification
- Video capturing and flight route and data logging, storing, playback
- » Further analysis of mission data

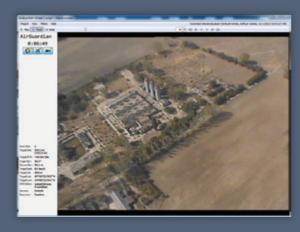
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BHE UAV Family Unmanned Aerial Vehicle System



BHE's Unmanned Aerial Vehicle System (UAV) is a Reconnaissance system, that can follow a preprogrammed route while sending real time video signal and position information back to the ground control station.

The system can be effectively used by companies to patrol their distant premises or any type of network could it be electric wires, oil pipe-lines or towers. Due to the compact size (length: 1,7 m / wing span: 3,7 m) and intelligent software different government organizations and emergency services can also take advantage of this new innovation.

Main application areas:

- Security and maintenance control for companies
- » Combat reconnaissance
- Natural disaster monitoring such as earthquakes, flood and forest fire
- Precision agriculture
- » Wild life monitoring
- Border control
- Geodesy

The airplane is made using the latest fiber composite technology and equipped with reliable onboard electronics. Several features such as flexible route planning, adaptive communications and control mechanism are built in the system. And it has been designed to allow easy installation and operation keeping the operational cost down.





BHE UAV Family BXAP15 UAV features & specifications

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BXAP15 UAV features

- » 3D CAD design
- Composite construction
- » Easily transportable
- » Ease of assembly and operation
- » Recovery without special equipment
- » Encrypted radio communication
- » Realtime video stream downlink
- » Robust communication at C band
- Onboard flight data logging
- » Catapult launch
- » Optionally retractable payload
- » Optional emergency parachute landing

Specifications

- » Speed: 60-100 km/h
- » Ceiling: min. 4000 m depending on configuration
- » Wing span: 3.7 m
- » Length: 1.7 m
- » Take-off weight: 17 kg
- » Endurance: up to 100 minutes
- » Propulsion: electric brushless engine (1200W peak power)
- » Payload weight: up to 3 kg
- » Real time video & telemetry transmission range: 15 km

Ground Control Station

- Whole system can be operated by the control station
- » Dual operator configuration (navigator and scout)
- » Additional operator workstations can be connected to the control station via network interface



Onboard electronics system

- » Rack construction
- » Autopilot
- » Communication unit
- » Video processing unit
- » Data and video logger

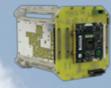
Communication

Rotating high gain

GPS controlled ante

- Onboard Galileo-ready GPS module
- Accurate, high speed 3D inertial navigation sensor
- MEMS pressure sensors for airspeed and barometric altitude measurement





Autopilot features

- 32 bit ARM core processor
- » Flight route programming, up to 500 waypoints
- Real time route/flight parameter modification via communication link
- Autonomous onboard navigation
- Preset flight maneuvers in case of special flight events
- 3D flight control
- Onboard flight data logging (black box function)



2-way adaptive

Payload

Default payload:

- » High resolution color camera head
- » Gyro stabilized pan-tilt platform
- More than 35x optical zoom
- Digital picture stabilization

Optional:

Thermal camera:

- » 8-12 μm range
- » 384x288 pixel
- » 16 bit digital data
- » Up to 25 fps

User defined:

Other equipment up to 3 kg (net weight)





More workstations can be connected to the Ground Control Station via the built-in ethernet interface *



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