

Scout B1-100 UAV

Product Brochure Scout B1-100 UAV Helicopter



Our UAV Product



The Scout B1-100 UAV helicopter

has been recognized as one of the leading autonomous helicopter systems (UAV) for various applications and has shown its outstanding capabilities in multiple countries and many projects such as high-accuracy 3D aerial laser mapping⁽¹⁾, autonomous 3D aerial magnetic scanning⁽²⁾, and aerial inspection.

The Scout B1-100 UAV system consists of an industrial-grade autonomously flying helicopter with a customer payload⁽³⁾ up to 18 kg and a flight endurance⁽⁴⁾ up to 90 min.



The complete flight mission can be pre-programmed from lift-off, hovering, cruising to landing with high positioning accuracy.

Various safety features such as autonomous homing and automatic landing in case of link-loss as well as redundant backup links are part of the standard UAV helicopter system.



(1) as documented in the EU research project at ETH Zurich 2006-2010, www.bacs.ethz.ch

(2) as shown in joint projects with Mobile Geophysical Technologies (MGT), www.mgt-geo.com

(3) Total payload = equipment + electronics + fuel = 30kg.

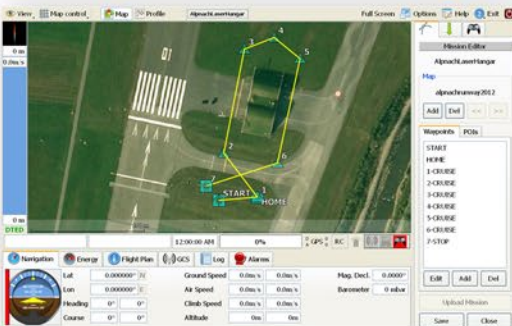
(4) The flight endurance has been tested at 500m AMSL in hover flight out of ground effect

Key Features



Some major features of the Scout B1-100 UAV helicopter are:

- Long-term flight endurance up to 90min non-stop (demonstration altitude 500m AMSL)
- 18kg free payload capacity
- Autonomous take-off and landing
- Integrated, autonomous flight control system (FCS) for automatic, assisted, or manual operation
- Air-cooled gasoline aircraft engine with electric starter onboard, tested in hot and cold areas worldwide
- Easy transportability and maintainability through modularity
- Insensitive to typical wind gusts

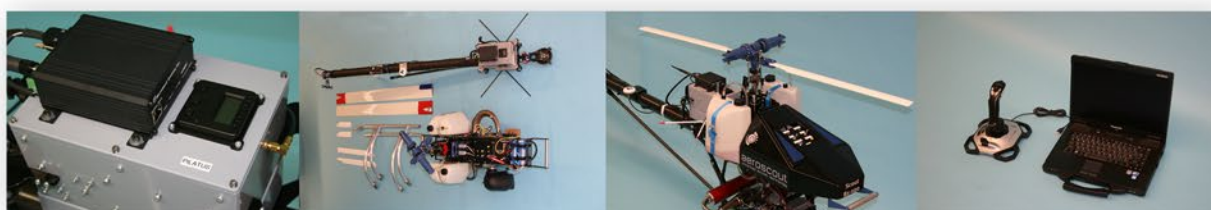


Your direct benefits using the Scout B1-100 UAV helicopter are:

- Highly reliable mechanical design
- Flexible payload options
- High maneuverability
- Smoothly running engine and optimal vibration isolation of the payload
- Sealed gear boxes and electronics
- Certificate of the Swiss Civil Aviation Authority (BAZL) of Switzerland
- Optional differential GPS/INS integrated navigation system with centimeter accuracy



Specifications



Technical Data

Main rotor diameter	3.2 m
Tail rotor diameter	0.65 m
Main rotor speed	860 rpm
Empty weight (inc. FCS, no fuel, no payload)	50 kg
Gasoline engine	100 ccm, 2-stroke
Engine power (approx.)	18 PS
Electric starter (onboard included)	16V
Fuel tank volume (standard)	2 x 5.0 l
Material of rotor blades	carbon
Material of main body	aluminum
Engine cooling system	air-cooled
Length	3.3 m
Width	1.0 m
Height (approx.)	1.3 m
Landing gear	skids

Payload Data

Standard fuel tank (approx.)	10l (approx. 90min endurance)
Free payload capacity (at 500m AMSL)	18.0 kg