



**ALPHA**  
UNMANNED SYSTEMS

**A900**

# RELIABLE, ROBUST, MULTI-PURPOSE UAV HELICOPTER

The A900 can be used for many missions, from ISR and border control to infrastructure inspections, communications relays, advance observation and as aerial targets.

The A900 has an onboard generator that provides up to 150W of power for power-intensive payloads, a radar altimeter, navigation lights and technology designed to enable navigation in GPS denied environments.



A small, white, autonomous VTOL aircraft is shown on the deck of a ship. The aircraft has a boxy, compact design with a large, rounded nose and a small, dark, circular sensor or camera mounted on the front. It has a single main rotor and a tail rotor. The aircraft is positioned on a dark, textured surface, likely the deck of a ship, with a white railing visible in the background.

# CAPABILITIES

- Autonomous VTOL from moving vessels
- 4H flight time
- +2'5h autonomous hovering
- Heavy-fuel powered
- GPS denied navigation
- Minimal logistical footprint
- 4 payload bays with 4kg total payload capacity
- Redundant critical systems
- Autorotation
- MTOW <25 KG
- Cruise Speed: 60 – 100 Km/h (32–54 knots)
- Emergency flotation devices
- Boxer low vibration engine

# APPLICATIONS

## MARITIME SURVEILLANCE

Alpha UAV helicopters are the ideal support tool for the Coast Guard and Navies. Heavy fuel powered, STANAG compliant, day and night operations.

## BORDER CONTROL

Alpha technology complements other fixed and mobile surveillance systems. Real time target tracking, EO/IR sensors, 100km range. Alpha's platforms can cover large distances and hover for significant times.

## ISR MISSIONS

The ability to obtain data immediately from the field can be critical to your mission. Our technology is designed to provide the very best in unmanned surveillance, whether of borders, infrastructure, or subjects/objects of interest.







## SAR OPERATIONS

Provide your operatives with a reliable and highly autonomous tool to conduct search and rescue operations quickly and safely in any environment.

## TARGET SYSTEMS

Current and evolving threats require target simulation of manned helicopters. Alpha's platforms are effective and efficient VTOL targets.

## INFRASTRUCTURE INSPECTION & MAPPING

Electric Transmission lines, Bridges, Critical facilities, Railways... require visual inspections. Alpha's platforms fly the most advanced sensors available including LiDAR and others.



**WEATHER PROOF**

# TOP SPECS



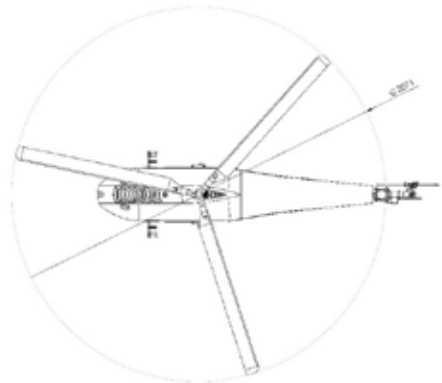
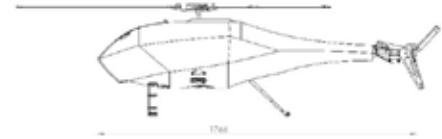
- Sea State 5 (Beaufort Scale)
- Landing with Pitch and roll up to  $10^\circ$
- Automatic Landing on moving vessels
- Autorotation and Flotation devices

# TECHNICAL SPECS

## AIRCRAFT

Wing Span	2.07m (6.8 ft)
Lenght	1.76m (5.8 ft)
Weight	<25 Kg
Propulsion	100cc 2-stroke low vibration boxer engine
Onboard Generator	Yes (Up to 150 Watts for payloads)
Fuel	98 Octane Gasoline, Jet A1 Heavy Fuel, JP8 Heavy Fuel
Aircraft Radio Range	Up to 100km (60 miles)*
Max. Output	4 KW

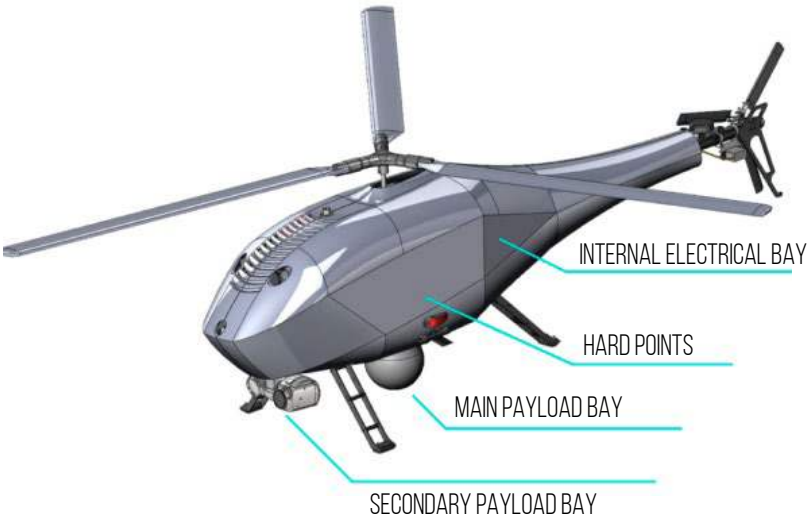
\*Depending on the radio configuration





# PERFORMANCE

Endurance	Up to 4 hours
Payload bays	4 (Main, Secondary, Anchors, and Electrical)
Payload Capacity	Up to 4 Kg
Range	Up to 200 Km/124miles
Landing Radius	3 m (10 ft)
Celing	3.000m (10.000 ft)
Hover Mode	Yes (Up to 2.5 Hours)
Max. Speed	100 Km/h (60 mph)
Cruise Speed	60 Km/h (38mph)





# PAYLOAD / SENSOR INTEGRATION

The **A900** supports a wide range of interchangeable and customizable payloads and sensors including, but not limited to:

- **EO/MWIR cameras**
- **Automatic Identification System (AIS).**
- **LiDAR.**
- **IMSI Capture**
- **Cargo release mechanism**

# CERTIFIED QUALITY

Alpha Unmanned Systems adheres to aviation standards and design procedures. The company is an ISO9001 certified company with an integrated holistic ERP system to ensure maximum traceability of all company processes and components. The A900 airframe and systems architecture have been designed to comply with STANAG 4738.

Its critical systems have been tested to withstand demanding conditions, such as the autopilot, which is MIL-STD 416F and 810F, and the servos, which comply with EN61000 and IP64 standards.

They have a MTBF of more than 1000h, calculated by Weibull analysis and tested up to 3000h endurance.

Using these standards and the AMCs and GMs provided by the European Union Aviation Safety Agency (EASA), products designed and manufactured by Alpha Unmanned Systems are suitable for certification by both civil and military authorities.





**TACTICAL UAV HELICOPTERS FOR HARD WORK SINCE 2014**



# ALPHA<sup>®</sup>

## UNMANNED SYSTEMS

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