

# THE A900

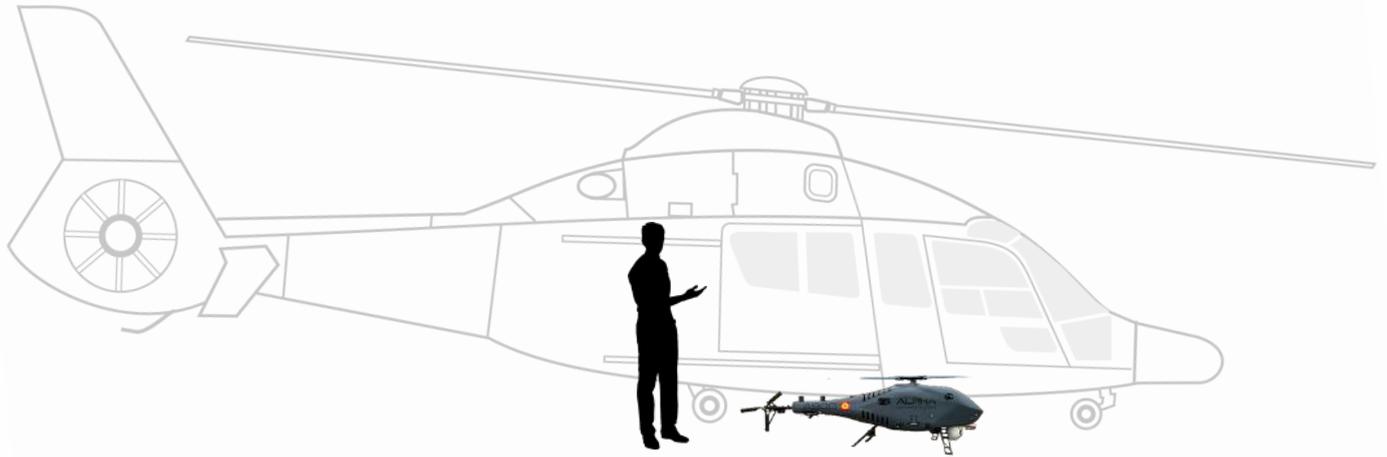


**ALPHA**<sup>®</sup>  
UNMANNED SYSTEMS

# RELIABLE, ROBUST, MULTI-PURPOSE UAV HELICOPTER

The A900 can be used for many missions, from ISR and border control to infrastructure inspection, communication relay, advance observation or as aerial targets.

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



Aprox. Scale of the A900



## CAPABILITIES

- Automatic VTOL from moving vessels
- 4H flight time
- GPS denied navigation
- Minimal logistical footprint
- 4 payload bays with 4kg total payload capacity.
- +2'5h automatic hovering

- 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 Coast Guards and Navies. Fuel powered, STANAG compliant and designed for day & 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 time periods.

## ISR Missions

The ability to obtain data immediately from the field can be critical for 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

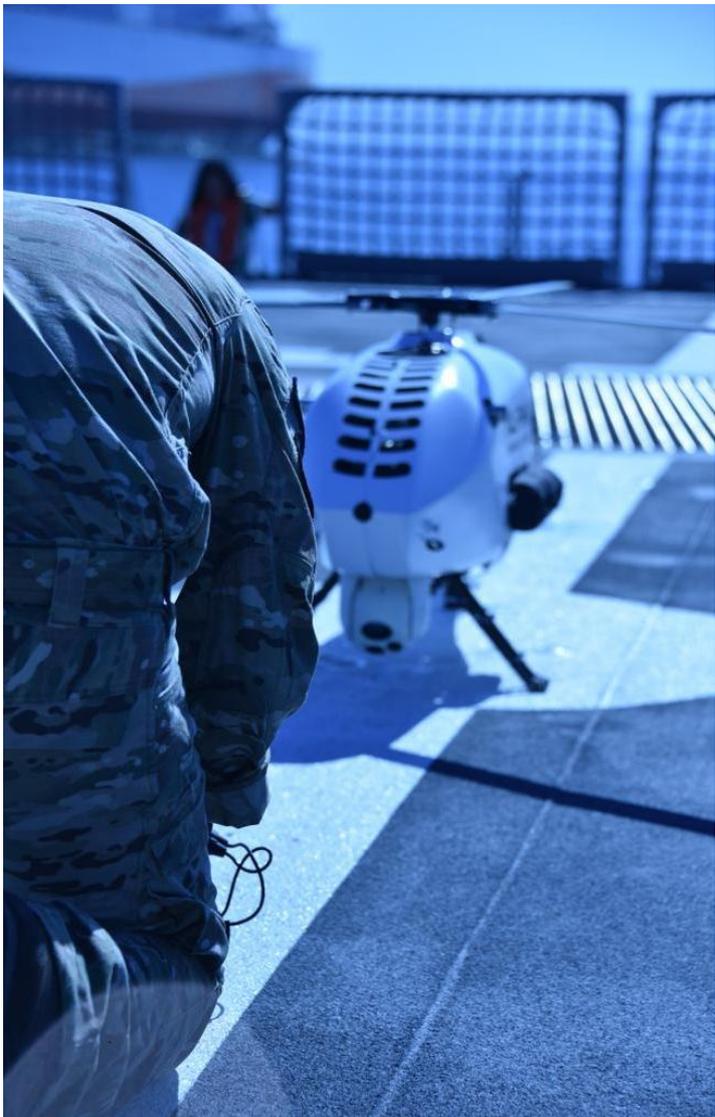
## TOP SPECS

LANDING  
WITH PITCH  
AND ROLL UP  
TO 10°

AUTO-  
ROTATION  
AND  
FLOTATION  
DEVICES

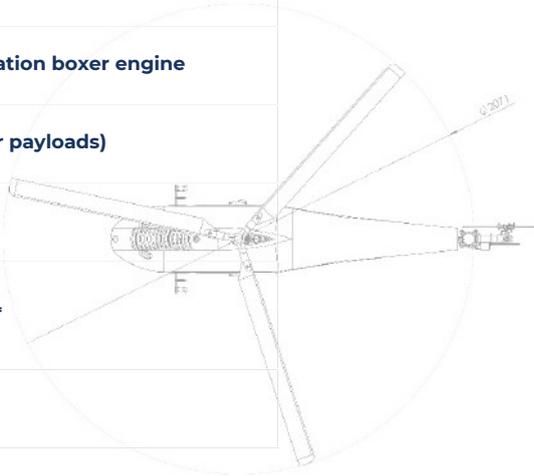
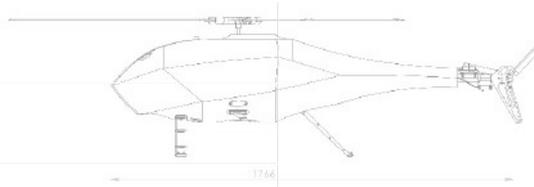
SEA STATE 5  
(BEAUFORT  
SCALE)

AUTOMATIC  
LANDING ON  
MOVING  
VESSELS



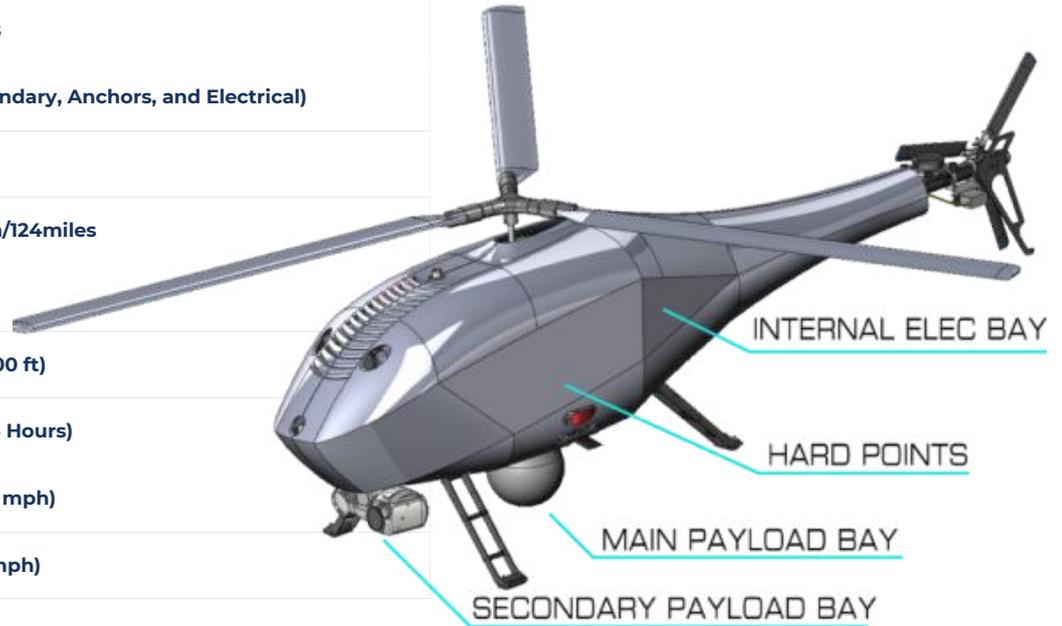
# AIRCRAFT

<b>Main rotor Diameter</b>	<b>2.07m (6.8 ft)</b>
<b>Length</b>	<b>1.76m (5.8 ft)</b>
<b>Weight</b>	<b>&lt;25 Kg</b>
<b>Propulsion</b>	<b>100cc 2-stroke low vibration boxer engine</b>
<b>Onboard Generator</b>	<b>Yes (Up to 150 Watts for payloads)</b>
<b>Fuel</b>	<b>98 Octane gasoline</b>
<b>Aircraft Radio Range</b>	<b>Up to 100km (60 miles)*</b>
<b>Max. Output</b>	<b>4 KW</b>



# PERFORMANCE

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







## **PAYLOAD / SENSOR INTEGRATION**

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

- EO/IR cameras
- Maritime AIS (Automatic Identification System) radar
- LiDAR
- IMSI Capture
- Cargo release mechanism

# CERTIFIED QUALITY

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

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

They have an MTBF of over 1000 hours, calculated using Weibull analysis and tested up to 3000 hours.

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>

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the European Union

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