


Military

H225M



AIRBUS
HELICOPTERS





H225M

DESIGNED FOR THE MOST DEMANDING MISSIONS A COMBAT PROVEN MULTI-ROLE HELICOPTER

Introduced in 2005, the H225M has proven itself in combat service worldwide: Afghanistan, Lebanon, Lybia and Mali.

An evolution from the experience gained with the Cougar family, the H225M is the latest version of this medium lift (11-ton class) helicopter.

The H225M is equipped with:

- Two latest generation Turbomeca Makila 2A1 engines
- A five-blade Sheriflex® rotor providing high levels of maneuverability
- A state-of-the-art glass cockpit and avionics
- The most advanced Automatic Flight Control System.

The H225M excels in a full range of military missions:

- Special Operations
- Combat Search and Rescue
- Tactical transport
- Casualty / medical evacuation.

As well as in public service missions:

- Search and Rescue
- Firefighting
- Coast Guard
- Exclusive Economic Zone (EEZ) protection.

The H225M - a truly multi-purpose, versatile military asset – has the capability to operate both from ships and from ashore.

The most demanding missions

Special Ops, Combat SAR and Personal Recovery missions require performance, precise navigation and survivability; qualities for which the H225M is outstanding.

The French Forces are successfully operating the H225M in the harshest environments. The success of the H225M demonstrated in various theaters, reflects its excellent capabilities as a Force Multiplier and the ability of this aircraft to offer decisive tactical advantage to any operator.





Mission Capabilities

- Ready for all environments
 - All weather, including in fully iced conditions
 - Day and night operable with state-of-the-art NVG compatibility
 - Sandy or maritime environments
- Outstanding range
 - 700 NM without refuelling
 - Air-to-air refuelling capability
 - Hover In-Flight Refuelling (HIFR)
- Cabin versatility
- Easy and Fast recovery Systems

Major mission equipment

- Multipurpose air intakes / sand filters
- Auxiliary Power Unit
- 990 liters (261 US gal) rear jettisonable fuel tank
- Flight Management System with Doppler, GPS and SAR modes
- Inertial Navigation System with embedded GPS
- Digital moving map displayed on any LCD instrument panel
- TV + IR multi-sensor turret
- Personal Locator System
- Double Hoist, abseiling, fast roping systems
- Armament:
 - 7.62 mm machine gun in forward cabin windows
 - Two 180 round 20 mm gun pods
 - Two 19 - 2.75" rocket launchers
- Mission Planning System (Sirina 2), ideal for preparing missions quickly and precisely according to helicopter performances



Tactical Transport missions

The agility, high load capacity and easy cabin access of the H225M combined with fast cruise speed and long range, make this aircraft the perfect tactical transport helicopter for troops and cargo, as well as for casualty evacuation.





Your satisfaction is our top priority

Up to 28 cabin seats or

up to 14 energy-absorbing wall mounted seats

Easy cabin access

- 2 large double central sliding cargo doors never obstructed thanks to the 2 sliding windows

Easy cockpit access

- 2 individual hinged doors for crew

Cargo transport Configuration

- Internal load: high density cabin floor 1,500 daN/m²
- External load: max sling capacity 4,750 kg / 10,470 lb

Casualty / medical evacuation

- 11 stretchers + 5 attendants or seated injured passengers
- 2 self-contained medical units with attendants



28 cabin seats



Sling capacity

Search & Rescue

Search and Rescue missions require a fast, high-performance helicopter able to function in both hot and cold environments. The H225M offers superior performance, endurance, range and safety in all weather conditions. This helicopter can achieve the mission when others can't deliver.





Always ready to go:

Demonstrated availability rate: 98 %

First to arrive on the scene

- Takeoff in less than 5 minutes
- High cruising speed with low vibration

Exceptional endurance

- A radius of action of more than 300 NM, extendable by in-flight refuelling or Hover In Flight Refuelling

Very low vibration levels

- Comfortable for crew and passengers
- Minimal airframe and equipment fatigue

SAR mission equipment

- Record-breaking 4-axis dual duplex digital Automatic Flight Control System including outstanding OEI management and Ground Speed mode
- Flight Management System with DOPPLER, GPS and SAR modes, Inertial navigation system with embedded GPS
- Search and weather radar
- TV / IR camera, eye-safe laser telemeter
- Double hoist with variable speed: useful length 88 m (290 ft) - 272 kg (600 lb)
- Large bubble window for NVG search
- Emergency floatation certified up to sea state 6 level: automatic inflation within flight envelop up to 150 kts; can also be armed by the crew
- Crashworthy seats for cabin crew
- Casualty carrying installation for stretchers
- 990 liters (261 US gal) rear jettisonable fuel tank
- Hailers + searchlight



Public Services

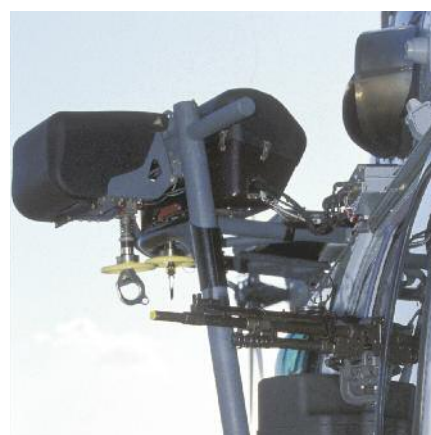
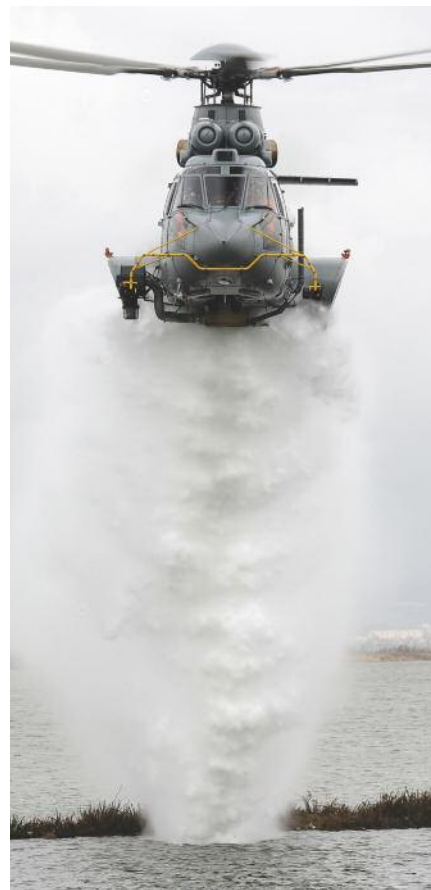
Firefighting

4,000 liters (1,057 US gal)

Water bombing kit

Coast Guard

Exclusive Economic Zone (EEZ) protection



Adaptability

The H225M has been designed and is equipped for high survivability.



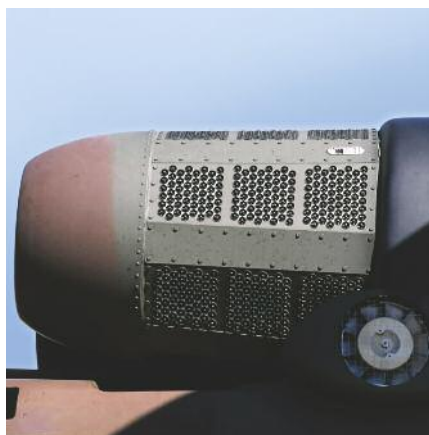


Protection

- Against 7.62 or 12.7 mm
- Crew cockpit protection: armoured and energy absorbing crew seats
- Armour plating in the cabin: either collective floor and walls or individual armour plating carpets

H225M Survivability Equipment

- Radar warning receiver
- Missile approach warning system
- Laser warning receiver
- Chaff / Flare dispensers



Reduced Vulnerability

IR Suppressors

- IR signature divided by 10

Fuel tanks

- Self sealing and crashworthy Multi Purpose Air Intakes
 - Sand and ice protection
- Blades multibox structure
- Bullet impact resistant



Main Gear Box dry run

Successfully completed (exceeds FAR/JAR29 requirements) without exemption, 52 Minutes dry run achieved

Crashworthy structure and energy absorbing seats

- Reinforced structural main frames
- High energy-absorption landing gear

Unrivalled redundancy in key systems to maintain full functionality despite significant battle damage

- Sensors/computer (dual duplex AFCS)
- Displays (five, all multi-functional)
- Dual engine-FADEC with backup
- Integrated Stand-by Instrument (ISI) with same display logic as main LCDs



Technology

The military certified (045-DGA) H225M has been designed to comply with the latest JAR 29 amendments.

Thanks to the dual-channel FADEC, the TURBOMECA MAKILA 2A1 turboshaft engines deliver more power. The 5-blade Spheriflex® rotor provides an exceptionally low vibration level, and the modular design of the mechanical assemblies allows for easier maintenance. The First Limit Indicator displays the available power in any condition and the power margin in All Engines Operatives (AEO) and One Engine Inoperative (OEI) situations. This new generation helicopter features significant advances in terms of man-machine interface displaying the right information at the right time.





Modern technology allows for greater safety



Main Gear Box

- Increased power
- Demonstrated 30-minute dry run capability, cooling spray device compliant with JAR 29
- 5-blade Spheriflex® main rotor
- Blades with multibox structure, capable of flight in severe icing conditions.

Advanced Helicopter Cockpit Avionics System

- Four 6" X 8" LCD Multi Function Displays
- Two 4" X 5" LCD Vehicle Monitoring Displays
- One LCD Integrated Stand by Instrument for speed, altitude and gyro horizon backup
- 4-axis, dual duplex autopilot

The AFCS provides outstanding precision and stability; its upper modes integrate the engine limitations in all AEO and OEI situations.

It includes all SAR patterns, IFR procedures, automatic approaches. It allows fully automatic hovering capture whatever the speed.

Spheriflex® Fiberglass Rotor Head

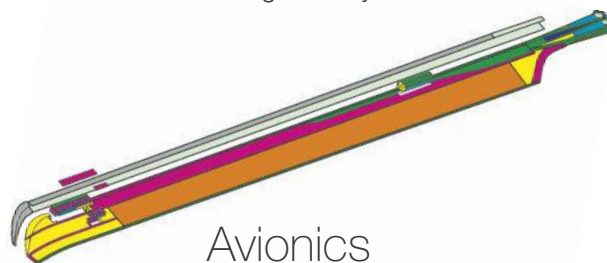
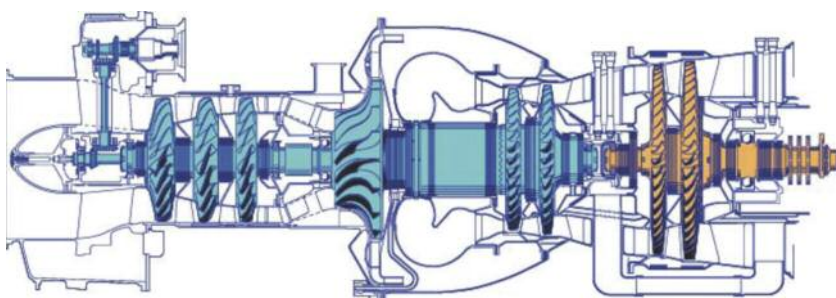
- Excellent maneuverability
- Great stability
- Very low sound and vibration levels
- Rotor engagement in winds of up to 55 kts
- Easy to adjust

Monitoring System

Integrated maintenance assistance system Health Usage Monitoring System (HUMS) based on data recording and pro-active monitoring for flight safety enhancement.

2 TURBOMECA MAKILA 2A1

- Modular design for easy maintenance
- Blade shedding technology
- 2 dual channel FADECs, with automatic reconfiguration



Avionics

The H225M is equipped with state-of-the-art avionics and integrated communication systems. The systems reduce crew workload while enhancing mission capability for more safety. At a glance, pilots have all navigation and piloting data. Enhanced Ground Proximity Warning System (EGPWS), TCAS 2 and Electronic Warfare systems (EWS) as unpredictable information will automatically be displayed when necessary.

Support and Services

At Airbus Helicopters, supporting your helicopter operations with the highest level of excellence is our priority. We are dedicated to meeting our customers' needs, whether it be maximizing combat readiness, ensuring public safety or saving lives. In order to provide customized services, we offer:

- A worldwide service network of 30 subsidiaries and participations, more than 100 distributors, representatives, training centers, repair and overhaul facilities and maintenance centers around the globe, as well as logistic hubs in France, Hong Kong and the USA.
- Customer Service Centers in Europe, Asia and the USA offering around-the-clock customer assistance, 7 days a week, 365 days a year to keep you in the skies.
- A wide array of service solutions to meet all your needs in terms of technical support, component repair and overhaul, spare parts support, technical publications and training at Airbus Helicopters facilities worldwide or at your own facilities.





Easy maintenance

Mechanical floor accessibility

- Built-in step
- Cowlings designed as working platforms

“Check Intervals”

Daily checks

- Before the first flight
- Turnaround
- After the last flight

Flight related checks

- 15 hours or 7 days

“Inspection intervals”

- Supplementary inspection: 100 hours
- Basic inspection: every 1,200 hours or 3 years
- Major inspection: only every 16 years

Reduced Manpower Required

- O & I level: 4 technicians per aircraft
- Replacement times of major assemblies

Engine	3 Tech.	30 min
Intermediate GB	2 Tech.	30 min
Tail GB/TRH	2 Tech.	1 h 30
Main Rotor Blade	3 Tech.	9 min
Main Rotor Head	3 Tech.	1 h 45
Tail GB/TRH	2 Tech.	1 h 30

Flexible Customer Support

- A full range of service concepts from standard spares, maintenance, repair and overhaul to fully customized, comprehensive service packages

A World Renowned Training Academy

- Conversion and refresher courses for pilots and technicians
- Pilot training academy with state-of-the-art simulation (Full Flight Simulator)
- Standard training courses (type rating, emergency procedures, IFR, CRM, etc.)
- Mission training courses (NVG, deck operations, IFR, NOE, SAR, etc.)
- Training on-site at customers' premises with detachment of instructor pilots or technicians
- Available H225M training tools: CAI, VCPT, LTD



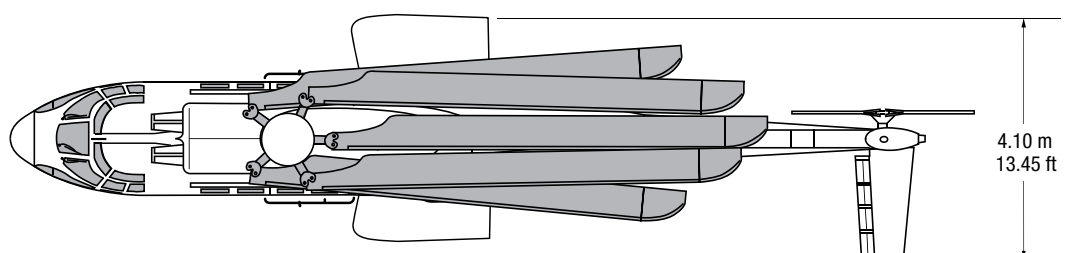
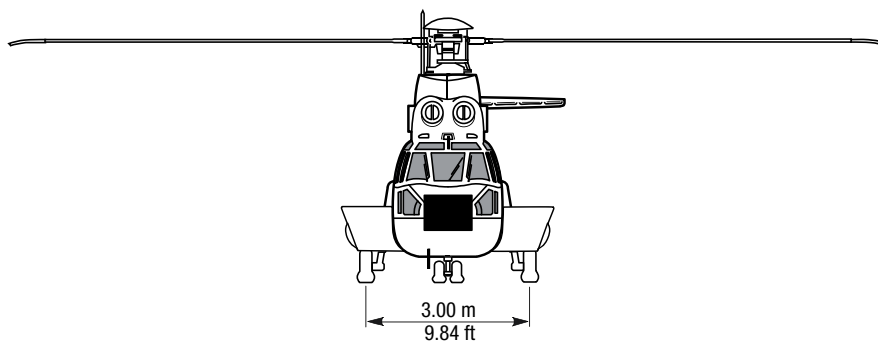
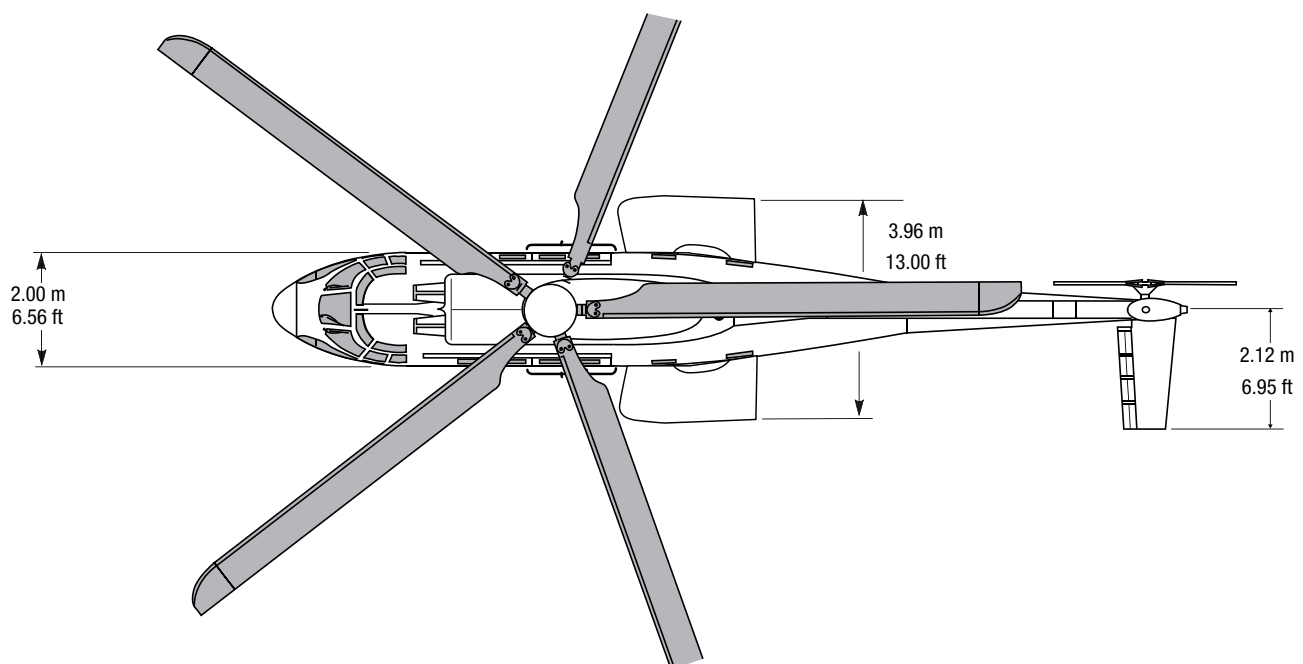
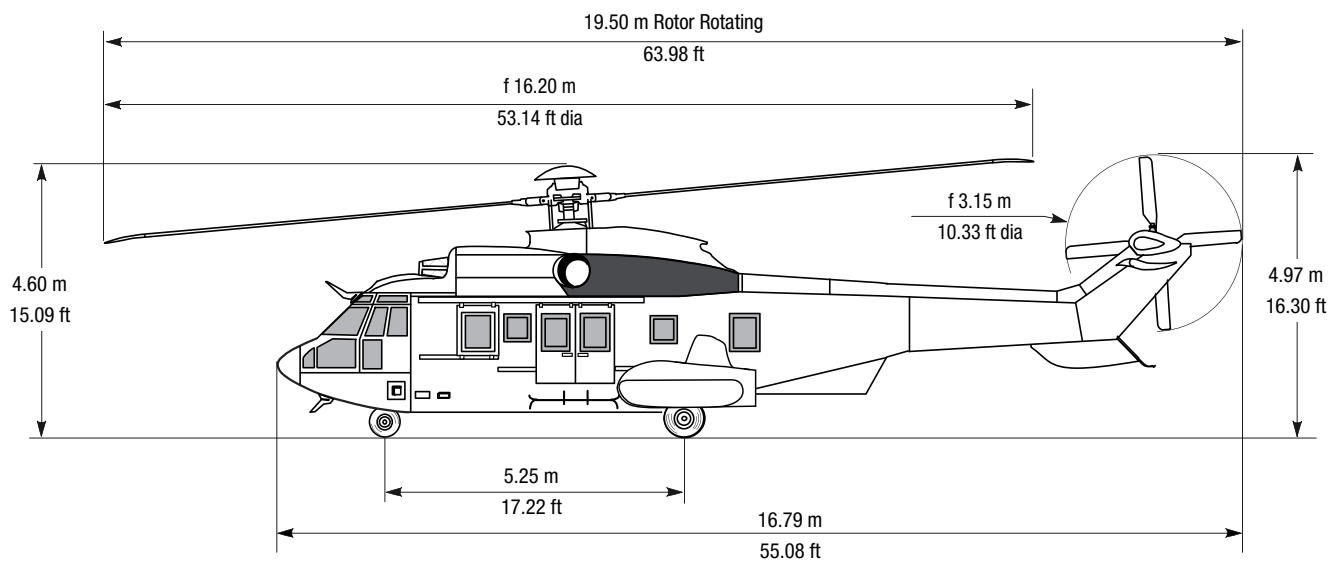
Characteristics



Glossary

AFCS: Automatic Flight Control System
AFDS: Automatic Flotation Deployment System
CVFDR: Cockpit Voice and Flight Data Recorder
DMC: Direct Maintaining Cost
EGPWS: Enhanced Ground Proximity Warning System
FLI: First Limit Indicator
FLIR: Forward Looking Infra Red
FMS: Flight Management System
GSPD: Ground Speed Mode
HFDM: Helicopter Flight Data Monitoring
HIRF: High Intensity Radiated Fields
HMI: Human Machine Interface
HOMP: Helicopter Operations Monitoring Program
HUMS: Health and Usage Monitoring System
ICAO: International Civil Aviation Organization
LFR: Logistic Field Representative
MFD: Multi Function Display
MGB: Main Gear Box
OEM: Original Equipment Manufacturer
OGAP: Oil & Gas Availability Program
OGP: Oil and Gas Producers
PBH: Parts by the Hour
TCAS: Traffic Collision Avoidance System

CAPACITY		
Troop transport:	2 pilots + 1 chief of stick + 28 seats	
VIP transport:	2 pilots + 8 to 12 passengers	
Casualty evacuation:	2 pilots + up to 11 stretchers + 4 seats	
Sling load:	4,750 kg / 10,472 lb	
WEIGHT		
Maximum takeoff weight	11,000 kg	24,251 lb
MTOW in external load configuration	11,200 kg	24,690 lb
Empty weight	5,715 kg	12,600 lb
Useful load	5,285 kg	11,651 lb
MTOW in external load configuration	11,200 kg	24,690 lb
Maximum cargo-sling load	4,750 kg	10,472 lb
Standard fuel capacity	2,247 kg	4,954 lb
ENGINES 2 TURBOMECA MAKILA 2A1		
Take-off power per engine	1,567 kW	2,101 shp
PERFORMANCE AT MAX. GROSS WEIGHT, ISA, SL		
Maximum speed (Vne)	324 km/h	175 kts
Fast cruise speed (at MCP)	262 km/h	142 kts
Recommended cruise speed	262 km/h	142 kts
Rate of climb	5,4 m/s	1,064 ft/min
Service ceiling (Vz=0.508m/s = 100ft/min)	3,968 m	13,019 ft
Hover ceiling OGE at ISA, MTOW, takeoff power	792 m	2,600 ft
Maximum range without reserve at Economical Cruise Speed	909 km	491 NM
Endurance without reserve at 148 km/h-80 kts	> 4 h 20 min	



THE VALUE OF EXPERIENCE

THE SUPER PUMA / COUGAR FAMILY

Worldwide Civil and Military Operations

The H225M has evolved from the vast experience accumulated by some 100 Super Puma / Cougar operators; more than 900 helicopters have been ordered in 52 countries.

The in-service Super Puma fleet has logged about 5-million flight hours.





Contacts

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