

Civil

EC145®

 **AIRBUS**
HELICOPTERS



EC145

THE ULTIMATE
MULTI-ROLE HELICOPTER



In operations on land and at sea, the EC145 is at the top of its class in the medium-sized, twin-engine helicopter category. With up to 12 seats for pilots and passengers, this multi-mission helicopter combines Airbus Helicopters' latest developments such as advanced cockpit design, avionics and a sophisticated electrical system. The EC145 offers a proven hingeless rotor system with a monolithic titanium hub and enhanced rotor blades, which ensure low sound and vibration levels.

The EC145 is equipped with two Turbomeca Arriel 1E2 engines that provide outstanding performance and vital power reserves even in one-engine-inoperative (OEI) scenarios. The aircraft's twin-engine reliability is enhanced by a completely separate fuel system, a tandem hydraulic system, a dual electrical system and redundant lubrication for the main transmission. Further built-in safety aspects include an energy-absorbing fuselage and seats and crash-resistant fuel cells.

In addition, the EC145 allows for Category A operations up to performance class 1 according to EASA OPS Part CAT.

Compared to other helicopters in its class, the EC145 offers a significantly larger cabin featuring excellent outside visibility for pilots, crew and passengers; a roomy cabin with no partitions, center or door posts; and unrivalled side and rear loading capability.

EMS, Disaster Management and SAR Missions

The EC145 offers unmatched visibility and a discreet sound level—6.7 dbA below ICAO limits—for effective EMS operations. The state-of-the-art, IFR-equipped glass cockpit avionics display is compatible with night-vision goggles (NVGs), which means the EC145 is fully functional both night and day. The EC145 is also well-adapted to handle primary EMS missions and flying intensive care units. Its unobstructed cabin can accommodate two stretchers, three seated persons and all necessary medical equipment. Its rear clamshell doors allow easy straight-in loading of stretchers, while extra-wide side doors provide effortless access for attendants and crew. Different configurations of the EMS interior—each tailored to the specific range of missions—are available to fulfill customers' requirements.



Primary EMS missions

The spacious cabin of the EC145 provides easy access for patients and medical crews.

The medical equipment on board for treatments such as resuscitation (CPR) and endotracheal intubation enables medical crews to save lives during flight. Two large rear clamshell doors facilitate quick, easy and safe patient loading and unloading, even while the rotors are running.



Rear access

Secondary EMS missions

The EC145 features exceptional capabilities for transferring patients from one hospital to another or for rapidly accessing accident sites. Its low vibration level and high flight stability provide working comfort for medical attendants and the best transport conditions for patients. The medical equipment and apparatus are modular and can be fitted without requiring special tools.



Disaster management, SAR missions

The EC145 is equipped with a high-performance rescue winch system featuring a lift capacity of 272 kg (600 lb) and a cable length of 90 m that guarantees rescue operations even in the most difficult conditions such as floods, earthquakes, landslides and heavy snowfalls.

Outstanding performance and excellent stability—a “must” for rescue helicopters—make the EC145 the ideal helicopter for mountain rescue operations.

Oil & Gas Missions

The EC145 ensures exceptional reliability and performance parameters in extreme weather conditions. It is equipped with two powerful Turbomeca Arriel 1E2 turboshaft that provide an optimal level of safety in one-engine-inoperative (OEI) scenarios. Furthermore, the high-set main rotor and tail rotor improve safety on the platform. In the oil & gas configuration, the EC145 offers comfortable seating for up to nine passengers plus a pilot. Passengers can easily access the cabin via extra-wide sliding doors on either side or clamshell doors at the back.





The EC145's low level of maintenance per flight hour is acknowledged by operators as a key feature of this aircraft. Robust and reliable, the EC145 ensures high availability rates.

Safety in mind

The EC145 offers excellent single-engine performance. Its agility and handling qualities in high winds are exceptional. The glass-cockpit integrated flight display with the vehicle and engine multifunction display (VEMD®) and the caution and advisory display (CAD) reduce pilot fatigue, enhancing flight safety.

The cockpit design provides an unmatched field of view in all directions.

Oil & gas mission equipment available includes:

- EGPWS
- TAS
- HEEL
- ADELTA
- Autopilot
- UMS
- Weather radar
- Search and rescue weather radar
- Radar altimeter with audio warning
- Jettisonable doors
- Push-out windows
- Emergency floats
- ARHS free steering mode
- Lashing points for wind speeds up to 100 kts
- Main rotor blade folding kit
- Moving map
- Sound proofing kit
- Passenger address system
- Cabin loudspeaker
- Comfort improvement kit
- Air conditioning
- Tinted sun shades
- voice alert generator
- High-frequency radio
- Inlet barrier filter



Aerial Work Missions

The EC145 is the best-value solution for aerial work. The EC145's unobstructed main cabin is easily reconfigurable to maximize mission flexibility, while the helicopter's sliding side and rear clamshell doors optimize access to the cabin. The high-set main and tail rotor provide unparalleled safety and access, allowing the loading and unloading of passengers or cargo while the rotors are running. Extensive use of new, lightweight manufacturing materials and extensive system modularity simplifies maintenance, reducing lifetime ownership costs and logistic requirements. The EC145 was selected by the U.S. Army as the new multi-mission Light Utility Helicopter (LUH), known as the UH-72A Lakota.





Multi-mission flexibility

- Up to 10 energy-absorbing seats in the cabin
- 6 m³ (213 ft³) of cabin / cargo volume
- Sling-type cargo hook for the lifting and transportation of external loads up to 1,500 kg (3,307 lb)
- External hoist (mountable on the left- or right-hand side) with a lifting capacity of 272 kg (600 lb) on a 90 m cable
- Wide range of equipment kits.



Law Enforcement Missions

In order to meet the continuously growing scope of public service missions, the EC145 can be equipped with the most modern and proven police equipment on the market. Fast and reliable, the EC145 can rapidly transport up to 11 officers to the scene of an accident. The EC145 is fully NVG-compatible.



Multi-mission flexibility

- Command, Control and Communications
- Search and Rescue (SAR)
- Passenger transportation
- Border patrol
- Observation and airborne surveillance
- Commando insertion and retraction
- Vehicle pursuits
- Deployment of specialized personnel to inaccessible places
- Missing person searches
- Counter terrorism support
- Armed incident support



Surveillance



Rope



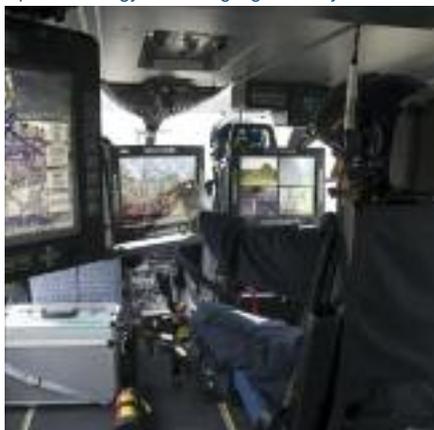
NVG full-compatibility



Up to 10 energy-absorbing high-density seats



EOS and search light with laser pointer



Operator's console with multiple mission screens



SWAT Team Transportation

Passenger Transportation

The EC145 is the only helicopter in its category to combine a roomy cabin with excellent window visibility, providing exceptional passenger comfort. This aircraft offers high rotor clearance, large luggage clamshell doors, extra-thick interior insulation, and special flooring that lessens residual vibration. The EC145, with its sporty yet elegant atmosphere, invites passengers onboard via large sliding doors that provide easy cabin access. Inside, passengers discover the cabin's stylish comfort and various amenities while they admire the view. With its low sound and vibration levels, corporate and private helicopter users alike can work or relax in the living space.



Exclusivity and aesthetics

The EC145 becomes more than a means of transportation in the Stylence® configuration, which merges aesthetics and advanced technology to offer unrivalled passenger comfort.

Even when passengers are onboard and comfortably seated, the EC145 Stylence configuration offers ample space for luggage to be easily loaded through the rear clamshell doors. The exceptionally spacious cabin allows for a variety of seating arrangements.



Support & Services

Airbus Helicopters is committed to supporting your EC145 with the same level of excellence that you have come to expect from our aircraft themselves. We are available around the clock and around the world with tailored service solutions that keep your aircraft in the skies and your business on track, whether this be maximizing flight revenues, ensuring public safety or saving lives. Our customer support team is at your service 24/7 to keep you flying.



Your Satisfaction Is Our Top Priority

Multi-mission flexibility

In order to provide the individualized attention our customers require, we offer:

- A worldwide service network of 30 subsidiaries and participations in 21 countries, along with more than 100 distributors, representatives, training centers, repair and overhaul



facilities, and maintenance centers, as well as logistic hubs in France, Hong Kong and the United States.

- Customer Service Centers in Europe, Asia and the United States offering around-the-clock worldwide customer assistance, seven days a week, 365 days a year.
- A wide array of service solutions to meet your needs in terms of technical support, component repair and overhaul services, parts and spares support, technical publications and training—at Airbus Helicopters' facilities worldwide or at your own.



Technology

The EC145, the latest medium-sized (3.5 ton) twin-engine Airbus Helicopters' rotorcraft, is the answer to an increasing demand for a multi-role helicopter. Modern and versatile, the EC145, with its large range of optional equipment, provides outstanding flexibility for all types of missions.



Advanced Technology and Design



The EC145 is equipped with two powerful and reliable Turbomeca Arriel 1E2 engines which provide outstanding performance and vital power reserves in OEI scenarios.

The use of the variable rotorspeed and torque matching system (VARTOMS), enhances overall flying comfort, and makes the EC145 the quietest helicopter in its class at 6.7 decibels below ICAO sound level.

In addition to offering environmental and economic benefits, the rotor system together with the high time between overhaul (TBO) gearbox and airframe components allows for low maintenance costs and high helicopter in-service time thanks to the low level of scheduled maintenance required.



Excellent design features:

- Exceptional side loading (no door posts) and rear loading capability
- Energy-absorbing skid-type landing gear
- Redundant design of all major systems, such as flight control actuators, lubrication, cooling, hydraulic system and electrical system
- Cockpit designed for minimum pilot workload
- Single interchangeability of main rotor blades
- Four glass and carbon fiber reinforced main rotor blades with erosion protection strip
- Semi-rigid tail rotor with two twisted glass fiber reinforced blades of new technology with erosion protection strip
- Simple and rapid exchange of different types of mission equipment.



Characteristics

PASSENGER TRANSPORTATION

Configuration	Pilots	Passengers
Standard seating	1	9
	2	8
High density seating	1	11
	2	10

MISSION CAPACITY

Configuration	Pilots	Medical Attendants	Others
Casualty evacuation	1	4	1 stretcher
	1	3	2 stretchers
	2	2	2 stretchers

DIMENSIONS

Height (rotor rotating)	13m	42.65 ft
Fuselage length	10.20 m	33.5 ft
Height	3.96 m	12.99 ft
Width (blades folded)	3.12 m	10.24 ft
Main rotor diameter	11 m	36.09 ft
Tail rotor diameter	1.96 m	6.43 ft

Weight

Maximum takeoff weight	3,585 kg	7,903 lb
Empty weight, standard configuration	1,792 kg	3,951 lb
Useful load, standard configuration	1,793 kg	3,953 lb
Maximum cargo-sling load	1,500 kg	3,307 lb
Standard fuel capacity	694 kg	1,530 lb

Engine

2 Turbomeca ARRIEL 1E2 turboshaft		
Maximum power per engine, One Engine inoperative (OEI), 2.5 min power	574 kW	770 shp

Performance at Max. GROSS WEIGHT, SL, ISA

Max. Cruise speed	246 km/h	133 kts
Rate of climb	8.1 m/s	1,600 ft/min
Hover ceiling IGE at 3,300 kg (7,275 lbs)	3,445 m	11,300 ft
Hover ceiling OGE at 3,300 kg (7,275 lbs)	3,445 m	11,300 ft
Maximum range with standard tanks	680 km	370 NM
Operation Limitations		
Maximum operating altitude	5,485 m	18,000 ft PA
Minimum temperature	- 45°C	-49°F
Maximum temperature	ISA + 35°C / limited to 50°C, + 95°F / 122°F	

The data set forth in this document is for information purposes only, and may vary with conditions. For performance data and operating limitation references, refer to the approved flight manual and all appropriate documents.





Glossary

EGPWS: Enhanced Ground Proximity Warning System

TAS: Traffic Advisory System

HEEL: Helicopter Emergency Egress Lighting

ADEL: Automatic Deployable Emergency Locator Transmitter

UMS: Usage Monitoring System

ARHS: Attitude Heading Reference System

Contacts

For more information, please contact:
Sales-promotion@eurocopter.com



© AIRBUS HELICOPTERS, Aeroport International Marseille Provence - 13725 Marignane Cedex - France - 2014 - All rights reserved, Airbus Helicopters' logo and the names of its products and services are registered trademarks.

Airbus Helicopters reserves the right to make configuration and data changes at any time without notice. The facts and figures contained in this document and expressed in good faith do not constitute any offer or contract with Airbus Helicopters.

Concept design by Micro Mega
Photos by ©Remy Michelin - ©Marcus Schlaf - ©Wolfgang Obrusnik - ©Airbus Helicopters / Patrick Penna - ©Airbus Helicopters / Jérôme Deulin - ©Claes Axstal - ©Eric Raz - ©Giuseppe Bergamini

Printed in France by Hemisud

Printed on PEFC certified paper originating from sustainable forests.

EC145-BR-0114E