



EC145



eurocopter
an EADS Company

thinking without limits





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 Eurocopter's latest developments such as an 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 noise and vibration levels.

The EC145 is equipped with two Turbomeca Arriel 1E2 engines which provide outstanding performance and vital power reserves even in one-engine-inoperative (OEI) scenarios. The EC145'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 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 JAR-OPS 3.

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 an incredibly discrete noise 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), so the EC145 is fully functional both night and day. The EC145 is also particularly adapted to primary EMS missions and flying intensive care units. Its unobstructed cabin has room for two stretchers, three seated persons and all the necessary medical equipment. Its rear clamshell doors allow easy straight-in loading of the stretchers, and 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 fulfil customers' requirements.





Rear access

Primary EMS Missions

The spacious cabin interior of the EC145 provides easy access for patients and medical crews. All of the necessary medical treatment, such as resuscitation (CPR) and endotracheal intubation, enable medical crews to provide life-saving treatment to patients during the flight. Two large rear clam-shell doors enable quick, easy and safe patient loading and unloading, even while the rotors are running.



Secondary EMS Missions

The EC145 features exceptional capabilities to transfer patients from one hospital to another or to rapidly access 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 lbs) 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 and Gas Missions

The EC145 ensures exceptional reliability and performance parameters in extreme weather conditions. It is equipped with two powerful Turbomeca Arriel 1E2 turbine 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 and 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 the flight safety. The cockpit design gives you an unmatched field of view in all directions.

Some of the oil and gas mission equipment available:

- EGPWS
- TAS
- HEELS
- ADELT
- 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
- HF radio
- Inlet barrier filter



Utility Missions

The EC145 is the best value solution for utility missions. The EC145's unobstructed main cabin is easily reconfigurable to maximize mission flexibility and 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 new multi-mission Light Utility Helicopter (LUH) and is called 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 lbs)
- External hoist (mountable on the left or right hand side) with a lifting capacity of 272 kg (600 lbs) on a 90 m cable
- Wide range of equipment kits.



Law Enforcement Missions

In order to meet the continuously growing responsibilities and tasks of public service missions, the EC145 can be equipped with the most modern and experienced 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.



NVG full-compatibility



EOS and Search light with laserpointer



Rope



Up to 10 energy absorbing high density seats



Surveillance



SWAT Team Transportation



Operator's console with multiple mission screens

Passenger Transportation

The EC145 is the only helicopter in its category to combine a roomy cabin and excellent window visibility, providing exceptional passenger comfort. This aircraft offers high rotor clearance and large luggage clamshell doors, and extra-thick interior insulation and special flooring that damps out any 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 stylish comfort of the cabin and its various amenities while they admire the view. With its low noise and vibration levels, corporate and private helicopter users alike can work or relax in the living space.





Exclusivity and Aesthetics

With the EC145 Stylence configuration, the helicopter is no longer a simple means of transportation: It is specially designed for unrivalled passenger comfort, merging aesthetics and advanced technology.

Even when passengers are on board and comfortably seated, there is still more than enough space for luggage to be easily loaded through the rear clamshell doors. The exceptionally spacious cabin allows for a variety of seating arrangements.



Support and Services

Eurocopter is committed to supporting your Eurocopter product with the same level of excellence that you have come to expect from our aircraft themselves. We are dedicated to looking out for the best interests of our customers, 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



- In order to provide the individualized attention our customers require, we offer: A worldwide service network of 24 subsidiaries and participations, 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 USA
- Customer Service Centers in Europe, Asia and the USA offering around-the-clock worldwide customer assistance, seven days a week, 365 days a year
- A world of services to meet customers' needs in terms of technical support, component repair and overhaul services, parts and spares support, technical publications and training—at our facilities, or yours.



Technology

The EC145, the latest medium-sized (3.5 ton) twin-engine Eurocopter helicopter 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 rotor speed and torque matching system (VARTOMS), known from the predecessor model BK117 C-1, enhances overall flying comfort, and makes the EC145 the quietest helicopter in its class at 6.7 decibels below ICAO noise level.



In addition to environmental and economical aspects, the rotor system together with high TBO gearbox and airframe components offer both low maintenance costs and high in-service time for the helicopter due to the minimal scheduled maintenance required.



Excellent Design Features:

- Exceptional comfort and cabin size
- Unrivalled side loading (no door posts) and rear loading capability
- Excellent field of view to the front, left/right hand sides and rear
- Energy-absorbing passenger and crew seats
- Energy-absorbing skid-type landing gear
- Energy-absorbing airframe
- Crash-resistant fuel system
- Redundant design of all major systems, such as flight control actuators, lubrication, cooling, hydraulic system and electrical system
- Cockpit designed for minimum pilot workload
- Hingeless main rotor (system Boelkow) for excellent maneuverability
- Single interchangeability of main rotor blades
- Four glass and carbon fiber reinforced main rotor blades with erosion protection strip
- Semi-rigid tail rotor with 2 twisted glass fiber reinforced blades of new technology with erosion protection strip
- Simple and rapid exchange of different types of mission equipment.



Characteristics

The EC145 combines Eurocopter's latest technical developments. The EC145's hingeless rotor system with its monolithic titanium hub is fully proven. In addition to environmental and economical aspects, the rotor system together with high time between overhaul (TBO) gearbox and airframe components allow for low maintenance costs, in addition to high in-service time of the helicopter due to the low level of scheduled maintenance required. The EC145 is equipped with two powerful and reliable Turbomeca Arriel 1E2 engines which, in combination with its lifting system, provide outstanding performance and vital power reserves even in one-engine-inoperative scenarios. Twin-engine reliability is complemented by a fully separated fuel system, a tandem hydraulic system, dual electrical system and redundant lubrication for the main transmission. Further positive safety aspects of the EC145 are design elements like energy absorbing fuselage and seats, as well as crash-resistant fuel cells. The EC145 allows Cat. A operation up to the level of class 1 performance.



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		
Weights			
Maximum take-off weight	3,585 kg / 7,913 lbs		
Empty weight, standard configuration	1,792 kg / 3,951 lbs		
Useful load, standard configuration	1,793 kg / 3,953 lbs		
Maximum cargo-swing load	1,500 kg / 3,307 lbs		
Standard fuel capacity	694 kg / 1,530 lbs		
Power plant			
2 Turbomeca ARRIEL 1E2 turbine engines			
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 / 95°F, limited to + 50°C / 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.



thinking without limits



www.eurocopter.com

EC145-05.10-E. Designed by Eurocopter - Photos: Remy Michelin - Marcus Schlaf - Wolfgang Obrusnik - Patrick Penna - Jérôme Deulin - Claes Axstal - Eric Raz - Giuseppe Bergamini.

 eurocopter, Thinking without limits, EC145 - Stylen - VEMD are trademarks of the Eurocopter Group. Corporate Communications Department.
Eurocopter 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 Eurocopter.



Printed on PEFC certified paper originating from sustainable forests.