



EC135 T2e/P2e





EC135 Multi-Mission Flexibility

The EC135 is a powerful, lightweight, twin-engine multi-mission helicopter that showcases top-notch technology while offering low operating costs. The EC135's high endurance and extended range enables this helicopter to perform a full range of mission requirements, while carrying more payload over longer distances than any aircraft in its class. Incorporating a modern cockpit and avionics—as well as Eurocopter's Fenestron® tail rotor and bearingless main rotor—the EC135 is recognized for its high performance and outstanding maneuverability. And it is one of the quietest helicopters in its class: The EC135 is approximately 6.5 db below ICAO standards. This is of particular interest to operators regularly flying over cities and in densely-populated areas, including emergency medical services and law enforcement agencies.

Two FADEC-equipped engine options are available: Turbomeca's Arrius 2B2 and the Pratt & Whitney Canada PW206B2. Both of these powerful, reliable turboshaft engines provide outstanding performance and vital reserves, even in one-engine inoperative scenarios, along with low fuel consumption. The EC135's simple, multi-purpose design, allowing for fast and easy maintenance and optimal dispatch reliability, is enhanced with an unrivaled variety of optional equipment.

EMS, Disaster Management and SAR Missions

The highly successful EC135 lends itself readily to perform all types of EMS and disaster management SAR missions. Its design offers a lightweight cockpit layout, compact dimensions, excellent outside visibility as well as a modular, flexible cabin arrangement. Loading and unloading is carried out quickly and easily on either side or at the rear, through the extra-large sliding doors or rear clamshell doors. Even during winching operations, patients can be easily transferred into the hovering helicopter. In addition, the EC135's external noise level—below the strictest regulatory specifications—allows for operation in close approach to hospitals, which are often situated in highly populated areas.





Rear access

Primary EMS Missions

The EC135's skid landing gear along with its compact design make it possible to land in very confined areas or unprepared terrain, wherever the injured are awaiting urgent help. The high-set main rotor and patented Fenestron® tail rotor ensure that the crew can work safely in the area of the rear clamshell doors while rotors are running, and in comfort: The helicopter provides ample room for up to four crew members—a pilot, a doctor or a flight nurse and one or two paramedics—as well as a patient. A second stretcher can be installed within seconds.



Landing in confined areas

Secondary EMS Missions

The EC135 was designed in close cooperation with medical professionals and rescue experts. It offers:

- A modular design that can be adapted to different users' needs
- A cabin suited for the installation of medical devices and equipment
- In-flight resuscitation (CPR) and endotracheal intubation capabilities
- A cabin-accessible baggage compartment
- A hygienic, easy-to-clean floor
- Rear or side stretcher loading
- An Anti-Resonance Isolation System (ARIS), ensuring low vibration levels and a smooth ride.

Optional mission equipment such as the autopilot, moving map and weather radar support the pilot during IFR flights and enhance overall flight safety. "Flying Intensive Care Stations" and incubators are also available on a modular basis.



Disaster Management, SAR and Homeland Defense Missions

The EC135 has excellent slope landing capabilities and can perform rapid interventions in situations of high risk, adverse weather, catastrophes and disasters, and in emergencies such as floods, earthquakes, landslides, and heavy snowfalls.

The EC135 also has particular value in support of homeland defense missions such as efficient response to terrorist attacks.

Oil and Gas Missions

The EC135's panoramic visibility, exceptional maneuverability, range, twin-engine performance, safety, and large cabin make the helicopter perfectly suited for the most demanding oil and gas operations. The powerful and reliable engines provide outstanding performance and vital power reserves, even in one-engine inoperative (OEI) scenarios. The EC135 features other safety aspects, such as energy-absorbing fuselage and seats, along with crash-resistant fuel cells. Its state-of-the-art avionics considerably reduce pilot workload, allowing them to focus on the mission ahead. The simple design of the EC135 allows for fast and easy maintenance, thereby ensuring optimal dispatch availability. Finally, the EC135's proven technology enables pilots to perform safe and efficient flights, even in the poorest weather conditions.





Safety and Comfort in Mind

The EC135's spacious cabin offers outstanding visibility to both the pilot and its passengers. The latter will appreciate the ample legroom and low in-flight vibration levels. In the standard configuration, the EC135 can accommodate 5 or 6 passengers plus 1 or 2 pilots. The EC135 provides excellent OEI hover performance, which ensures optimal safety in case of an engine failure during operations.



Emergency floatation system



Utility Missions

The EC135 offers numerous possibilities to utility operators: It is especially adapted to utility missions with its powerful category A, FADEC-equipped engines, roomy cabin with sliding doors and low sensitivity to wind. In addition, it provides a high external cargo hook capacity.



Reliability and Flexibility

Reduced Pilot Workload

The Vehicle and Engine Multifunction Display (VEMD®) allows pilots to concentrate on the mission ahead: An acoustic warning informs them when the engine is reaching its first limitation, which in turn reduces pilot workload.

Stable Sling Loading

The EC135's design and large horizontal stabilizer provide maximum stability for sling load operations. The Fenestron® tail rotor ensures safety for personnel on the ground and helps pilots avoid obstacles when landing or maneuvering. The cabin floor allows for a very high load capability of 600 kg/m². Two pairs of multipurpose rails can be used to install passengers seats, mission equipment or carry loads. These rails allow for a point load of 100 kg per tie-down ring.



Safe Winch Operations

The EC135 was designed with winch operations in mind: It offers wide, sliding doors as well as skids with modified long boarding steps that provide a safe operational platform for the winch operator. The winch is mounted on a swiveling arm which allows for an angle of approximately 62 degrees in relation to the fuselage. Two cable lengths are available: 50 or 90 m.

Affordable

Last but not least, the EC135 has the lowest direct operating cost in its class, making it the cheapest twin engine helicopter to operate!

Some examples of utility missions that the EC135 can perform :

- Sling load operation
- Hoisting
- Cargo transportation
- Power line inspections
- Wind turbine maintenance and inspections
- Harbor pilot transportation
- News gathering
- Fire fighting



Law Enforcement Missions

Whatever action the law enforcement mission requires, the EC135 offers the perfect solution. With its compact size and shrouded tail rotor, the EC135 can land in confined areas. Its wide, unobstructed cabin offers increased visibility for observation operations. Mission flexibility, low noise, reduced maintenance, operational costs and higher availability are among the many reasons why so many police operators have already chosen the EC135 for their daily operations.



The Efficiency Multiplier

Eurocopter has developed a wide range of equipment for the EC135 to meet the requirements of police forces around the world. The cabin is night vision goggle (NVG) compatible, and can be configured with a state-of-the-art avionics glass cockpit. In addition, the wide, unobstructed cabin, with its flat floor and multipurpose rails, allows operators to quickly and easily change configurations.

The EC135 is the ideal workhorse for the following law enforcement activities:

- Observation and airborne surveillance
- Command, Control and Communications
- Pursuit
- Border patrol
- Police escort
- Rapid transportation of special equipment and units
- Commando insertion and retraction.



External loudspeakers



Surveillance



SWAT team transportation



EOS



Rappelling system



Search light with laserpointer



NVG capabilities



Operator's console



Hoist at the left or right side

Passenger Transportation

EC135 passengers enjoy an exceptionally fast, smooth ride, thanks to its bearingless main rotor and innovative Fenestron® tail rotor system. The EC135's high set main rotor and the shrouded tail rotor enhance safety for passengers and ground crews. The oversized side-sliding doors enable passengers to easily board and exit. In addition, the helicopter's rear clamshell doors make luggage storage simple. The EC135 offers unsurpassed external visibility during flight—passengers can sit back and soak up the extraordinary view. And with its low noise and vibration levels, the atmosphere is both pleasant and restful for passengers and crew.





L'Hélicoptère par Hermès

Space and Comfort



Corporate Version

The EC135 Corporate configuration offers comfortable, classic surroundings. Genuine materials such as real wood and leather combined with highly accurate production methods ensure a lightweight interior that maximizes the helicopter's range. The elegant interior design with stylish seats and cabinets creates an exclusive ambience. This configuration can comfortably accommodate up to six passengers plus a pilot, providing ample legroom space. An optional version accommodates seven passengers and a pilot.

Roomy, leather-upholstered seats are standard in both the Corporate and Executive versions.



Executive Version

The EC135 Executive configuration provides passengers with an outstanding work environment: There is ample room for up to four people. High-tech materials such as carbon fiber and lightweight aluminum-alloy with the best and most precise manufacturing technologies give a stylish, modern appearance. Ergonomically-designed cabinets offer a well-balanced combination of space and elegance.



L'Hélicoptère par Hermès

L'Hélicoptère par Hermès is a singular experiment in collaborative engineering and design based on a truly mutual evolution on dialogue and research between Eurocopter engineers and Hermès designers and craftsmen and not only founded on a mere combination of skills.

The key concept of l'Helicoptère par Hermès is: the passenger is all important. Issues of style versus engineering are resolved to provide an uncompromisingly user-centric experience.

The aircraft exterior, and the cabin, reflects the quality and finesse of Hermes 's craftsmen and offer the passenger comfort refinement and functionality.



Training Missions

The EC135 is the perfect helicopter for pilot training thanks to its maneuverability, high visibility and low vibration levels. In addition, it is equipped with the most advanced technologies available to help instructors perform training missions in optimal safety conditions.

The EC135 is easy to fly, requires minimal maintenance and provides low fuel consumption, which translates into low operating and overall training costs.





Training Made Easy

Pilot and co-pilot stations have exactly the same controls, enabling instructors to take control of the helicopter whenever necessary. The modern instrumentation is ideal for pilots who are training on the EC135, as well as for pilots who fly other new generation helicopters. The sophisticated avionics system ensures that pilots only focus on their primary tasks. And because the EC135 is equipped with a one-engine inoperative (OEI) training mode switch, it is possible to simulate single-engine failures on the instrument panel while pilots continue to fly on two engines.

Types of training that can be carried out on the EC135:

- Type conversion
- IFR training
- Twin-engine/OEI training
- Advanced and mission training for:
 - Night vision goggles (NVGs)
 - Rescue hoists
 - Sling loads on a cargo hook
 - Helmet-mounted sight and display
 - Management of complex missions.

EC135 full flight simulator training is also available.



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 EC135, featuring Eurocopter's latest technological developments such as an advanced cockpit design, modern avionics, the Fenestron® anti-torque device and a bearingless main rotor system, provides outstanding performance and maneuverability. Quiet and cheaper to operate than any other twin-engine helicopter in its class, the aircraft is also equipped with safety equipment such as energy-absorbing fuselage and passenger and crew seats, along with crash-resistant fuel cells.



Advanced Technology and Design

Power Plants

Operators can choose between two types of engines. Both feature a Full Authority Digital Engine Control (FADEC) system for optimized engine operations and safety:

- Turbomeca Arrius 2B2



- Pratt & Whitney Canada PW206B2.



The FADEC

This system reduces pilot workload and increases flight safety.

The FADEC also greatly simplifies engine control and ensures:

- Optimum performance in all conditions
- Engine protection
- Power plant monitoring.

New and improved systems

- Ventilation
- Air conditioning
- Inlet barrier filter
- Medium height landing gear.

Large Choice of Cockpit Configurations



- Fully-integrated Thales Avionics glass cockpit using LCD-based multifunction display panels
- Central Panel Display System (CPDS) that incorporates a Vehicle and Engine Multifunction Display (VEMD®) and a Caution and Advisory Display (CAD)
- Possibility to install an advanced, fully-integrated Automatic Flight Control System (AFCS).

A Quiet Fenestron®



This shrouded tail rotor:

- Provides high efficiency
- Ensures low vulnerability when maneuvering close to terrain
- Is safe for ground personnel
- Has a low external noise signature.

Four-Bladed Hingeless and Bearingless Main Rotor



The EC135's main rotor, which only requires on-condition maintenance, provides agility and very high clearance for enhanced safety on ground.

Cabin



- Spacious, unobstructed cabin and cargo compartments
- Volume of 5.9 m³ (208.35 cubic ft)
- Flat floor from the cockpit to the rear clamshell doors
- Excellent accessibility from all sides: two hinged cockpit doors, two wide sliding doors and two rear-hinged clamshell doors.

Characteristics

The EC135's high endurance and extended range allow operators to meet any mission requirement. It can carry more payload over longer distances than any twin-engine aircraft in its class, and offers excellent OEI performance even in hot climatic conditions and at high altitudes.



Passenger transportation			
Police / Utility / Offshore		VIP	Hermes
Pilots	Passengers	Pilots	Passengers
1	6/7	1	5/6
2	5/6	2	4/5
EMS / Disaster Management			
Pilots	Patients	Crew	
1	1	up to 4	
1	2	up to 3	
2	1	up to 3	
2	2	up to 2	
Dimensions			
Length (rotor rotating)	12.16 m / 39.9 ft		
Fuselage length	10.20 m / 33.5 ft		
Height	3.51 m / 11.5 ft		
Width (without blades)	2.65 m / 8.7 ft		
Main rotor diameter	10.20 m / 33.5 ft		
Tail rotor diameter	1.00 m / 3.3 ft		
Weight			
Maximum take-off weight	2,950 kg / 6,504 lb		
Empty weight, standard configuration	1,455 kg / 3,208 lb		
Useful load, standard configuration	1,455 kg / 3,208 lb		
Maximum cargo-swing load	1,300 kg / 2,866 lb		
Standard fuel capacity	560 kg / 1,235 lb		
Engine			
2 turbine engines	Turbomeca Arrius 2B2 or Pratt & Whitney PW206B2		
Maximum power per engine, one engine inoperative (OEI), 30 seconds	609 kW / 816 shp		
Performance at SL, ISA, Max. gross weight			
Maximum speed (VNE)	2,910 kg / 6,415 lb	2,950 kg / 6,504 lb	
Cruise speed	259 km/h / 140 kts	259 km/h / 140 kts	
Rate of climb	253 km/h / 137 kts	253 km/h / 137 kts	
Hover ceiling IGE	7.6 m/s / 1,500 ft/min	7.4 m/s / 1,450 ft/min	
Hover ceiling OGE	3,045 m / 10,000 ft	1,825 m / 6,000 ft	
Maximum range with standard tanks	2,010 m / 6,600 ft	1,705 m / 5,600 ft	
Maximum range with standard tanks	635 km / 342 nm	630 km / 340 nm	
Operation Limitations			
Maximum operating altitude (2,720 kg)	6,095 m / 20,000 ft		
Minimum temperature	- 35°C / -31°F		
Maximum temperature	ISA + 39°C / 102.2°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



EC135-BR-0112E. Designed by Eurocopter - Photos: Alain Ernoult - Marcus Schlaf - Wolfgang Obrusnik - Patrick Penna - Jérôme Deulin - DRF Luftrettung - Eric Raz - Antoine Gonin - Olivier Balmain - David Erevitt.

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