



# EC120 B



A close-up, low-angle shot of the EC120 B helicopter's nose and cockpit area, showing the red and black paint and the clear canopy. The background is a blurred forest with autumn foliage. The helicopter is flying over a dense forest with trees showing autumn foliage in shades of green, yellow, and orange. The rotor blades are visible in the upper left, blurred due to motion.

## EC120 B

### Everything you need in one handy little package

The EC120 B, also known as the “Colibri” (Hummingbird), is a 1.7 ton, single-engine aircraft designed for mission flexibility. It features advanced technologies for simple, safe and cost-efficient operations as well as easy maintenance. It is the only fully FAR/JAR 27 certified helicopter in its class. The EC120 B’s state-of-the-art ergonomic cockpit, complete with a dual LCD-screen Vehicle and Engine Multifunction Display (VEMD), greatly decreases the pilot’s workload, and its Turbomeca Arrius 2F engine offers very low fuel consumption.

Its Spheriflex® main rotor head, all-composite blades and Fenestron® tail rotor increase the safety, simplify maintenance tasks and reduce the noise level to 6.7 dB below ICAO limits, making the EC120 B by far the quietest helicopter in its class.

The EC120 B can comfortably carry up to 4 passengers and one pilot, all on energy absorbing seats. The wide cabin, generous visibility and large luggage compartment make this aircraft ideal for a variety of civilian and parapublic missions, including aerial work, law enforcement, training and passenger transportation.

The simple design of the EC120 B offers a new maintenance concept specially adapted for modern light-helicopter operations. Most of the maintenance tasks can be performed by the operators themselves with a limited need for specific tools. This independent maintenance has considerably reduced the operating costs of the aircraft.

## Utility

The EC120 B plays a large role in the utility sector, thanks to its dependability, efficiency, quietness, comfort and safety. Designed with the word “adaptability” in mind, this aircraft will be able to perform your mission no matter what task you throw at it.

The EC120 B's simplicity is the key to its versatility—it can be configured and easily reconfigured and comes with a large list of optional equipment for a variety of utility missions.

These missions may range from sling load operations to electronic news gathering, oil and gas transportation, or any other job you need to perform.





### Unparalleled Mission Flexibility

The EC120 B offers state-of-art integrated technology that allows the pilot to focus his concentration solely on the mission itself. Its exceptional visibility, impressive manoeuvrability and stability coupled with its VEMD considerably reduce the workload, all the while enhancing safety.

The cabin and the large baggage compartment can accommodate a variety of cargo and bulk loads, and the flat, unobstructed floor makes loading and unloading effortless.

Its very low fuel consumption and ease of maintenance are why the EC120 B boasts the lowest operating cost in its class.

#### Optional Equipment

- Cargo sling
- Electrical external mirror
- Windshield wipers
- Skis
- Wire strike protection system
- Sand filter
- Air conditioning
- Emergency floatation gear

## Passenger Transportation

In its passenger transportation configuration, the EC120 B provides outstanding comfort in its spacious cabin – highly appreciated features in a light helicopter.

In the extra-large cabin, four passengers and one pilot can travel at ease and in full security thanks to the energy absorbing seats, and the wide, unobstructed windows provide exceptional visibility.





Baggage hold

The EC120 B is neighbourhood friendly, as its exceptional low noise level doesn't cause disturbance while flying over urban areas.

The large baggage compartment is easily accessible from the rear and right-hand side and can hold up to 5 suitcases. There is also a possible access from the cabin thanks to a removable panel.

The EC120 B is also available in the exclusive Stylence® version, specially designed with corporate needs in mind.



Stylence® interior



# Law Enforcement

The EC120 B is the perfect helicopter for Law Enforcement missions – it can get the job done while remaining cost-efficient. Thanks to its low empty weight and powerful engine, it can carry a wide variety of police equipment: FLIR cameras, search light, hailers, etc. Its high endurance capability and unmatched quiet technology (6.7 dB under ICAO limits) make it the perfect surveillance platform for police operations, ranging from traffic control to ground support. Some police forces have even dubbed their EC120 B as their “eye in the sky,” thanks to the air support provided for operations on the ground.





### The Bad Guys Don't Stand a Chance

This helicopter offers an unmatched visibility and a wide unobstructed flat floor cabin allowing room for both police forces and equipment. Its low vibration level provides outstanding comfort for long flights and allows for the installation of all types of police equipment and avionics necessary to accomplish the mission.

And with its high manoeuvrability and dispatch reliability, the EC120 B can respond at a moment's notice.

Thanks to the integration of the latest technologies, the EC120 B has proven to be the safest, most efficient aircraft in its class for law enforcement missions.

#### Mission Capabilities

- Surveillance
- Crowd control
- Anti-terrorist support
- Fire fighting support
- Drug enforcement and detection
- Aerial support to ground operations
- Border patrol



Environmental surveillance

## Training

The EC120 B a great helicopter for both initial and recurrent pilot training thanks to its compact size, reduced operating cost, ease of use, simple design and large cabin visibility. Equipped with the most advanced technologies and enhanced energy absorbing systems (seats, main structure, fuel tanks), the EC120 B can perform training missions in optimal safety conditions.





### Simplicity Without Compromise

The EC120 B is certified for both left and right seat piloting. The pilot and co-pilot stations have exactly the same controls, enabling the instructor to take control of the helicopter whenever necessary.

The modern and simple instrumentation is ideal for training sessions, but will also help pilots to easily fly other helicopters with similar ergonomic cockpit designs, which is a Eurocopter family concept. This will help the trainee to become familiar with other high-tech helicopters.

### Low Operating Costs

Thanks to its simple maintenance program and low fuel consumption, overall training costs remain low as well.

### Easy Handling for Trainees

- Dual controls, twist-grip throttle, rotor brake
- Positive control response
- First limit indicator (T4, Torque, engine RPM reading)
- Performance computation (HOGE, HIGE)
- Endurance calculation (optional)



## 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 meeting the needs of our customers, whether this be maximizing flight revenues, ensuring public safety or saving lives.

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

- A worldwide service network of 26 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 7 days a week, 365 days a year, to keep you in the skies.
- 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.





### So Easy You Can Do It Yourself

The EC120 B has been designed with a full “Integrated Logistic Support” process: support activities were taken into account during the design and development phase.

- Low maintenance cost: simple to understand and easy to maintain
- Maximum availability: many maintenance tasks can be performed by the operator
- Convenient customer service network
- Innovative maintenance with the full integrated services

### Operational Maintenance

- Reconditioning via parts exchange or modules offered to operators for every system including transmission

### Scheduled Maintenance\*

- Upon demand: Blocked full inspection or distributed inspection
- Limited only to 4 types of inspections:
  - 100 Flight Hours or 12 months
  - 500 Flight Hours or 24 months
  - 1500 Flight Hours or 72 months
  - 12 years
- No major overhaul

### Maintenance Tools

- No test bench required
- Limited number of tools needed for scheduled maintenance



\* Excluding engine and potential corrective maintenance

# Technology

The EC120 B integrates more advanced technologies than any other light single-engine helicopter in its class in the world. These advances help make it easier to fly, safer and more cost-effective. Designed with simplicity in mind, this aircraft is one of the most user-friendly aircraft available. The EC120 B is the first single-engine helicopter to meet the requirements of the new JAR 27 safety regulations (crashworthy fuel systems, energy attenuating fuel structure and seats).





### The Next Generation Technology, Today

New generation of Fenestron® tail rotor:

- Low noise level
- High ground clearance
- No servo controls (low costs)
- Safety on ground and in flight



Energy absorbing seats

The EC120 B is equipped with dual controls, a twist-grip throttle, rotor brake and a VEMD indicating the torque, engine RPM and temperature limits.



High performance composite rotor blades:

- No corrosion
- High resistance to damage

Articulated Spheriflex®-type rotor head:

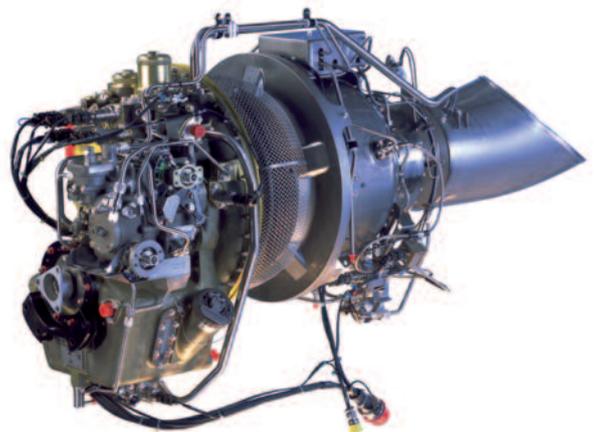
- Ease of maintenance
- No lubrication

TURBOMECA Arrius 2F engine:

- Powerful
- Simple: 2 modules
- Proven design
- Low fuel consumption

Instrument panel:

Ergonomic and state-of-the-art, the instrument panel includes the VEMD® for the management and control of the main vehicle and engine parameters. The sophisticated VEMD® monitoring system decreases the pilot's workload, allowing him to concentrate fully on the task at hand.



## Characteristics

The EC120B's outstanding characteristics are the cumulative result of 50 years experience in designing, manufacturing and supporting light single-engine helicopters.

660 EC120 Bs have been delivered worldwide (in 55 countries) and have completed nearly 1,000,000 flight hours.



CAPACITY	
Passenger transportation	1 pilot + 4 passengers
WEIGHT	
Maximum take-off weight	1,715 kg/3,781 lbs
Maximum operational weight in external load configuration	1,800 kg/3,968 lbs
Empty weight, standard configuration	994 kg/2,191 lbs
Useful load, standard configuration	721 kg/1,590 lbs
Maximum cargo-sling load	700 kg/1,543 lbs
Standard fuel tank	321 kg/707 lbs
ENGINE	
	1 TURBOMECA ARRIUS 2F
Take-off power	376 kW/504 shp
PERFORMANCE at MTOW, ISA, SL	
Maximum speed (Vne)	278 km per hr/150 kts
Rate of climb	5.84 m per sec/1,150 ft per min
Service ceiling	5,182 m/17,000 ft
Hover ceiling OGE at take-off power	2,316 m/7,600 ft
Maximum range without reserve at recommended cruise speed	710 km/383 nm
OPERATION LIMITATIONS	
Maximum operating altitude	6,096 m/20,000 ft
Minimum temperature	- 40°C/- 40°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 limitations, reference see approved flight manual and all appropriate documents. December 2010







thinking without limits



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