



EUROCOPTER
EC225



eurocopter
an EADS Company

thinking without limits





EC225

**Faster,
Further, Safer**

Eurocopter is proud to present the new addition to the Super Puma helicopter product line – the high performance EC225. This 11 ton helicopter benefits from the proven experience of the Super Puma family and integrates all the latest technological innovations. The 2 new TURBOMECA MAKILA 2A engines, the improved main gear box, the new highly aerodynamic efficient 5-bladed rotor gives this machine more power, increased payload, longer range and faster cruise speed. Its maximum flight endurance is close to 5 hours. The EC225 also features significant advances in terms of man-machine interface with state-of-the-art avionics and a brand new cockpit layout.

Most of all, this new aircraft meets the latest JAR 29 amendments, including the “flaw damage tolerance” requirements for the main helicopter components (rotor and fuselage). The EC225 also offers better comfort for passengers and aircrew. It features a very large useful volume and accommodates various seating arrangements up to 24 passengers. Vibration levels have been significantly reduced as well as noise level, giving the passengers the impression of flying in a commercial jet.

All these characteristics make this new generation aircraft highly versatile to carry out various missions from Offshore Transport, Search and Rescue Operations to Executive Transport.

SAR Mission

The EC225 benefits from the Super Puma family's experience in Search and Rescue operations and also from the recent launching of the EC725, specially developed to perform the demanding CSAR mission in the French Air Force. The result of this is a highly reliable machine able to fly further and faster than any other aircraft in the 11 ton category, in optimal safety conditions. The EC225 is equipped with state-of-the-art equipment such as navigation precision (sensors, inertia reference system...) or detection device (FLIR, RADAR). Its high stability allows for efficient hoisting operations.

It can be equipped with a rotor de-icing system to fly under all-weather conditions.



Unique SAR capabilities

- Fully automatic transition to hover
- Sensors redundancy for automatic hover. GPS.
- Unique automatic fly away in case of engine failure during hoisting.



Hoist



Large and comfortable cabin



Hoist



3 stretchers stacked vertically



Hailer and search light



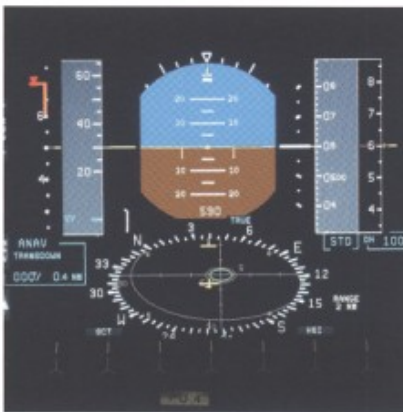
Double hoist



FLIR and radar



Navigation display



Hover indicator



Bubble window



Oil and Gas Missions

The EC225's reliability is the result of Super Puma's long experience in oil and gas industry: so far offshore operators have cumulated 8,000 flight hours. And the integration of the latest technologies makes this new generation aircraft the leader in the field of flight safety. It is designed with flaw damage tolerant components (rotor and fuselage). Its state-of-the-art avionics considerably reduces the pilot's workload and thus enhances safety. So that the EC225 complies with the latest JAR29 amendments.





A level of unequalled safety

The advanced technologies also increase the EC 225's performance: it can transport more passengers further and at a faster speed. This result in a higher level of comfort for passengers and an increase of profitability for offshore operators.

The EC 225 is equipped with a new de-icing system to fly under all weather conditions.

The wide cabin can comfortably accommodate up to 24 passengers. Energy attenuating seats can be fitted on the helicopter in staggered configuration, to free up shoulders room between passengers. The high performance air-conditioning system, the very low cabin noise, the indirect ceiling lighting make passengers think they are being shuttled in a fixed-wing aircraft.

To optimize the baggage space, extra large lateral sponsons can be added.



Emergency floatation system



Adelt



State-of-the-art Avionics cockpit



Luggage compartment



19 staggered crash worthy seats



Executive transport Mission

Over the past two decades, Eurocopter has built-up a worldwide reputation in designing and producing executives helicopters. Many Head of States and corporate executives selected the Super Puma family for its outstanding qualities. The EC 225 continues this tradition while offering a higher speed, longer range and more comfort.

The vibration level has been significantly reduced thanks to the new 5-bladed rotor and state-of-the-art anti vibration system. The enhanced soundproofing and the efficient air conditioning system will give passengers the impression they are on board a business jet.





Outstanding comfort

The highly spacious cabin (15,50 m³) lends itself particularly well to the transport of executives.

Various layouts are possible with front and rear lounges, galleys and bathrooms for carrying 8 to 12 passengers + 1 cabin attendant.



Maintenance

The Super Puma family has built up 3,307 000 million flight-hours of experience all around the world and under all weather conditions, even on the most demanding maritime environments.

The result is a proven and acknowledged maintenance experience, on which Eurocopter developed the EC225 maintenance program that gives the operator more flexibility to schedule inspections. This new scheduling enables the operator to forecast their costs more precisely and allows better management of their activity.





Maintenance made easy

The maintenance program of the EC225 has moved to a clear simplification of inspection types. Operators are free to organize periodic maintenance planning according to their own activity.

- No mechanic check necessary before 15 flight-hours (or 7 days). The pilot himself can perform the pre-flight or inter-flight checks.

- Reduction in the number and the type of inspections. Different operations can be grouped together and performed at a fixed date.
- Only periodical inspections every 75 hours and 750 hours (or 24 months).
- General Overhaul is suppressed and replaced by a special corrosion inspection after 15 years.
- The current Super Puma operators can utilize around 70% of their tools on the EC225. Part of the other tools can be adapted.

- Regarding avionics, the amount of built-in tests and the provided documentation allow the operators to perform trouble-shooting by themselves without the need of specific tooling. Avionics maintenance units (ground station) can be provided - or - is an available option for data down-loading and easier troubleshooting.

The whole maintenance documentation of the EC225 is available on CD-ROM.





Support and Services



Support for the Eurocopter customer is simply stated by the following:

A continually improving support structure that is both responsive and sensitive to individual operational concerns.

Efficiency and flexibility are also key components in the support of Eurocopter products across the globe. The following best sums up our straightforward approach:

- A worldwide service network of 15 subsidiaries, complemented by more than 100 distributors, representatives, training centers, repair and overhaul facilities and maintenance centers.
- Customer assistance available round-the-clock, seven days a week, 365 days a year.
- A world of services to meet customers needs: Spare parts, technical assistance, documentation, warranty solutions and training — at our facilities or yours.



Technology

New Technologies allow for greater safety

The EC255 has been designed to comply with the latest JAR 29 amendments. It integrates all the latest technological innovations to cope with the most stringent technical and operational requirements for all types of missions. The new TURBOMECA MAKILA 2A turboshaft engine – equipped with a dual-channel FADEC system – gives even more power, the new 5-bladed rotor provides an exceptionally low vibration level, the modular design of the mechanical assemblies allows for easier maintenance. This new generation helicopter also features significant advances in terms of man-machine interface, decision-making and piloting aids. Two large LCD multi function displays provide all the necessary pilot, navigation and mission information. The First Limit Indicator displays the available power whatever the conditions and the power margin in AEO and OEI situations.





Higher Technologies for more safety

Upgraded Main Gear Box

- Increased power
 - 30 minutes dry run capability, cooling spray device compliant with JAR 29.
- New 5-bladed Spheriflex® main rotor with improved servo actuators.
- New blade profile, multibox structure, capable of flight in icing conditions without limitation of severity.

2 TURBOMECA MAKILA 2A

- Modular design for easier maintenance
 - Blade shedding technology
 - 2 dual channel FADECs, with automatic reconfiguration in case of single channel failure.
- Manual reconfiguration after dual channel failure on one FADEC.

Advanced Helicopter Cockpit Avionics System

- Four 6" X 8" LCD Multi Function Displays
- Two 4" X 5" VMS color displays
- One 5 ATI LCD Integrated Stand by Instrument
- New 4 axis, dual duplex autopilot, Air Data Computers and Attitude and Heading Reference system.

The new AFCS provides an outstanding precision and stability and its higher modes integrate the engine limitations in all AEO and OEI situations. It also performs fully automatic approaches from 160 kts to 0kts/30ft in SAR mode.



ARMS

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





Characteristics

Even more power

Compared to the Super Puma MK2, the EC225 offers higher operational availability, increased payload (+15%), longer range (+5%) and faster cruising speed (+7%).

This performance upgrade was achieved by replacing the MAKILA 1A2 with the new MAKILA 2A engines that develop 14% more power, by strengthening the gearbox to transmit 8% more power and by integrating the new highly aerodynamic 5-bladed Spheriflex® main rotor.

CAPACITY

Passenger transport	1 or 2 pilots + 24 passengers with comfort seats	
VIP corporate	1 or 2 pilots + 8 to 12 passengers	

WEIGHTS

Maximum take-off weight	11,000 kg	24,251 lb
Maximum take-off weight with external load	11,200 kg	24,690 lb
Empty weight, standard configuration	5,271 kg	11,621 lb
Useful load, standard configuration	5,729 kg	12,630 lb
Sling load	4,750 kg	10,472 lb
Standard usable fuel capacity	2,553 l	4,447 lb

POWER PLANT

2 TURBOMECA MAKILA 2A TURBINE ENGINES

Maximum power per engine	1,800 kW	2,413 shp
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PERFORMANCE AT MAX. TAKE-OFF WEIGHT

Maximum speed (Vne)	324 km/h	175 kts
Cruise speed at 6000 ft	276 km/h	149 kts
Rate of climb	7 m/s	1,380 ft/min
Service ceiling	>5,530 m	>18,150 ft
Hover ceiling IGE	2,772 m	19,094 ft
Maximum range with standard tanks	877 km	474 nm
Endurance with standard tanks	4h26	

OPERATION LIMITATIONS

Maximum operating altitude	6,095 m PA	20,000 ft PA
Maximum operating altitude for take off and landing	2,194 m	7200 ft
Minimum temperature	- 30° C (basic)	-45°C (extreme cold weatherkit)
Maximum temperature	ISA + 35 °C (limited to 50 °C)	

The data set forth in this document is for information purposes only, and may vary with conditions. For performance data and operating limitation references, see approved flight manual and all appropriate documents. May 2003





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