



EC635





EC635

Proven, reliable and truly multipurpose

The EC635, the military version of the EC135, is Eurocopter's 3-ton class, twin-engine helicopter.

With its highly sophisticated observation equipment, long endurance, wide array of communication systems and large variety of armament, the EC635 is perfectly suited for the modern battlefield.

The stealth and no-hear distance of the EC635 allow it to remain undetected throughout its mission – a crucial aspect for surveillance and reconnaissance operations. These sound-reducing qualities are also particularly important for missions including urban flyovers and training.

The EC635's simple design allows for quick and easy maintenance, providing high availability rates of the aircraft. It is the answer to an increasing demand for a cost effective, light, multi-role helicopter.

The EC635 is a multi-role helicopter fit for the following missions:

- Armed Scout
- Training
- Utility

Armed Scout

The EC635 is the military counterpart of the EC135, a favorite worldwide. The EC635 builds upon this strong reference in terms of surveillance. Its compact size and low sound level make the EC635 a discreet ISTAR platform.

Relying on an exhaustive kit of weaponry, this armed scout helicopter can perform missions on any end of the operational spectrum – armed reconnaissance, fire support to troops in contact (TIC), escort and destruction.



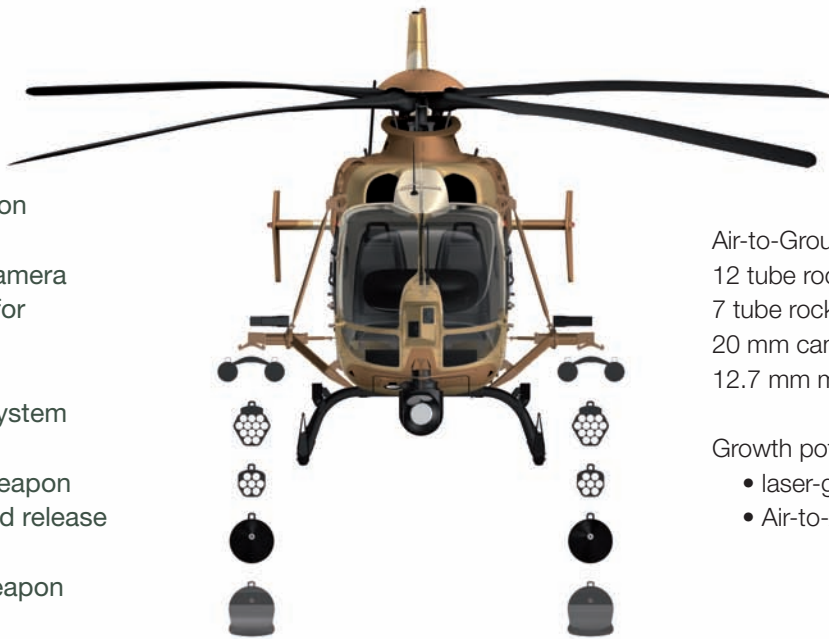


The EC635 is a rapidly reconfigurable platform with an unmatched selection of options adapted to today's battlefield requirements.

The combination of TV, IR and NVG ensure that the EC635 can efficiently perform combat missions in adverse weather conditions day or night.

The SAWS embeds:

- A multipurpose mission computer
- An EOS with IR/TV camera and laser range finder for observation and laser designator
- A ballistic targeting system based on a HMSD
- Two multi-purpose weapon carriers with slaving and release units
- A choice of mixed weapon configuration



- Air-to-Ground missiles
- 12 tube rocket launcher
- 7 tube rocket launcher
- 20 mm cannon pod
- 12.7 mm machine gun pod

Growth potential for :

- laser-guided rockets
- Air-to-Air missiles



The Electro-Optical System (EOS), Helmet-Mounted Sight Display (HMSD), digital map and data link allow the EC635 to perfectly integrate the new concept of the Digital Battlefield.



Training

Equipped with a state-of-the-art cockpit and the most advanced technologies, the EC635 provides optimal safety conditions for basic and advanced training. The benefits of the intuitive man-machine interface and the cutting-edge technologies allow pilots to efficiently evolve to more complex helicopters. The EC635 is easy to fly, requires minimal maintenance and provides low fuel consumption, translating in low operating costs and thus affordable training.



The Ideal Military Advanced Training Helicopter

Including Eurocopter innovations such as the Vehicle and Engine Multifunction Display (VEMD), which integrates a First Limit Indicator (FLI), the sophisticated avionics system of the EC635 ensures that pilots focus only on their mission. These technologies dramatically simplify the pilot's workload and serve as a preparation for specialized and more complex helicopters.

Design characteristics, such as the unobstructed windshield with an excellent field of view and the versatility provided by the hundreds of certified options, make the EC635 the best candidate for all training needs: from basic (conversion to type) to advanced (conversion to role).



Recovery mission



Sling operation



Gunnery training

Utility

With its roomy cabin, the EC635 can accommodate long and bulky freight through the rear clamshell or side doors. In single pilot configuration, a 5.9 m³/208.38ft³ internal volume is available. The EC635 has the highest ratio of maximum take-off weight to useful load in its class.

Fitted with an external hook, the EC635 is a real workhorse and can provide up to an additional 1,300kg/2,866lb sling load transport capacity with a take-off weight of 3,000kg/6,614lb. In addition, the large, unobstructed windshield allows for excellent visibility.

Up to six passengers and two pilots can be installed in the EC635. This is one of the safest and most comfortable means of transportation for authorities and dignitaries.

The sophisticated array of communications equipment for which the EC635 is certified also allows the onboard operator to interface with airborne and ground units as well as UAVs.



MEDEVAC / CASEVAC

For MEDEVAC/CASEVAC missions, the EC635 has a spacious and unobstructed cabin with a flat floor and rear access doors capable of loading and unloading stretchers and medical equipment.

Important features:

- Possible side and/or rear loading of patients;
- Transport of 2 lying patient possible with high end state of the art stretcher systems;
- Possibility to install one Nato stretcher;
- Foldable stretchers available for easy stowage;
- Integration of basic medical equipments and devices up devices for intensive care.



EC635 in Medical Evacuation mission: easy loading of the patient by the rear clamshell doors



Cabin in Nato CASEVAC configuration

Technology

A wide array of cutting-edge technology allows the EC635 to have a digitalized view of the modern, fast-paced battlefield and to respond accurately and efficiently. From nose to tail, the EC635 demonstrates optimal defensive capacity and crew safety.

Mechanically resilient, with redundant electrical, oil cooling and hydraulic systems as well as a large array of optional active and passive defensive equipment, the EC635 is a reference in survivability. The EC635 is built with crew and passenger safety in mind and as such, a crashworthy and energy-absorbing fuselage design is optimally applied.



The EC635 offers optimal performances, with a choice of two engine types: Pratt & Whitney Canada PW206B2 or Turbomeca ARRIUS 2B2. Both engine types feature Full Authority Digital Engine Control (FADEC) for optimized operation. FADEC greatly simplifies engine control and in addition ensures:

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

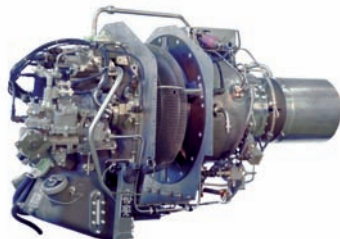
- Pratt & Whitney Canada PW206B2



The Inlet Barrier Filter (IBF) protects the mechanical components of the EC635, extending their lifetime even in the roughest conditions.



- Turbomeca ARRIUS 2B2



In surveillance and reconnaissance missions, the wide range of COM/NAV equipment available, including tactical V/UHF radios and the SatCom system (as part of the integrated military communication suite) offer data transfer capabilities for exchanging surveillance or target data with other forces or UAVs.



The light armour protection kit provides optimal ballistic protection for pilots and passengers:

- Pilot seats and cockpit floor
- Cabin floor
- Cabin-cargo hold separation wall



The EC635 can be equipped with a full Electronic Warfare System (EWS) comprised of:

- Missile approach warning system
- Laser and radar sensor suite
- Rechargeable, user-programmable, computer-controlled chaff and flare dispensers

Support and Services

Eurocopter is committed to offering product support with the same level of excellence that you have come to expect from our aircraft. We are dedicated to looking out for the best interests of our customers, whether it be transporting troops and Special Forces, providing armed air support and reconnaissance or saving lives.

Our customer support team is at your service 24 hours a day, 7 days a week, 365 days a year, to keep you flying.



The least expensive twin-engine to operate!

An array of comprehensive repair and overhaul services tailored to each customer's needs are available to ensure the highest safety standards, availability and cost control. With its small logistical footprint and an excellent availability rate, the EC635 is the right helicopter for your mission!

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

- Customer Service Centers in Europe, Asia and the USA offering around-the-clock worldwide customer assistance.
- 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.
- Tailored in-service support solutions to fulfill the specific needs of our military and para-public customers.

Straightforward Training:

Eurocopter's optimized and cost-efficient training program is available off the shelf. In addition, the similarity of the avionics in the EC635 to larger, more complex machines, such as the NH90 and Tiger, provides a strong base for additional training on these helicopters in the future.



Computer Based Training (CBT)	Computer Aided Instruction (CAI)	Avionics Trainer	Flight Simulators
<ul style="list-style-type: none"> • Pilot & mechanics self training • Acces via internet • Including testing module 	<ul style="list-style-type: none"> • Teaching material incl. smart board • Avionics / Electrics • Flight Control • Hydraulics 	<ul style="list-style-type: none"> • Avionics Workload Trainer • Overhead Panel • Sight System with 37" monitor and COTS data base 	<ul style="list-style-type: none"> • 2 Flight Simulation Devices at EC in Germany and the US • OEM High fidelity & EC135 specific Flight Simulation package

Characteristics



Proven Performance

PERFORMANCE		
Maximum speed (Vne)	259 km/h	149 kts
Cruise speed (SL, ISA)	254 km/h	137 kts
Range (SL, ISA) with standard fuel tanks	625 km	338 nm
Range (SL, ISA) with long range fuel tanks	835 km	451 nm
PAYLOAD		
Empty weight	1,462 kg	3,223 lb
Useful load	1,448 kg	3,192 lb
Payload and / or fuel	1,368 kg	3,015 lb
Maximum take-off weight	2,910 kg	6,415 lb
ENGINE		
2 turbine engines	Turbomeca ARRIUS 2B2 or Pratt & Whitney Canada PW206B2	
Maximum emergency power (O.E.I.)	609 Kw	816 shp
INTERIOR DIMENSIONS		
Cabin width	1.5 m	4.9 ft
Cabin and baggage compartment	4.35m ² (floor) surface) / 4.90 m ³ (volume)	46.83 ft ² / 173.04 ft ³
CAPABILITIES		
Troop transport	1 or 2 pilots + 7 or 6 soldiers	1 or 2 pilots + 6 or 5 soldiers
Medical Evacuation	1 pilot + 1 litter + up to 5 seats for doctors and attendants	2 pilots + 1 litter + up to 4 seats for doctors and attendants
	1 pilot + 2 litters + up to 4 seats for doctors and attendants	2 pilots + 2 litters + up to 3 seats for doctors and attendants
Cargo Transport	1 pilot + 5.9 m ³ (208.35 ft ³) in cabin (including co-pilot side) and cargo compartment	2 pilots + 4.9 m ³ (173.04 ft ³) in cabin and cargo compartment
Armed Mission	1 pilot + 1 officer in command + 1 observer + SAWS equipment	
	Gun pods 12.7mm	
	or Rocket launchers 70mm	
	or Cannon pods 20mm	
	or mixed armament configurations	

Glossary of terms

ABM - Airborne Battlefield Management
 AFCS - Automatic Flight Control Systems
 AVT - AVionics Trainer
 C³ - Command, Control and Communications
 CAI - Computer-Assisted Instruction
 CBT - Computer-Based Training
 Com/NAV - COMmunication/NAVigation
 EMS - Emergency Medical Services
 EO/IR - Electro-Optical/InfraRed
 FADEC - Full Authority Digital Engine Control
 FLI - First Limit Indicator
 HMI - Human Machine Interface
 HMSD - Helmet-Mounted Sight Display
 IBF - Inlet Barrier Filter

IR - Infra-Red
 ISTAR - Intelligence, Surveillance, Target-Acquisition and Reconnaissance
 MEDEVAC - MEDical EVAcuation
 NVG - Night Vision Goggles
 OEI - One Engine Inoperative
 OEM - Original Equipment Manufacturer
 SatCom - Satellite Communications
 SAWS - Stand-Alone Weapons System
 TACCO - TACTical COordinator
 TV - TeleVision
 UAV - Unmanned Aerial Vehicle
 V/UHF - Very/Ultra High Frequency
 VEMD - Vehicle and Engine Multifunction Display

The data set forth in this document is for informational purposes only, and may vary with conditions. For performance data and operating limitations, see the approved flight manual and all related documents. February 2011



thinking without limits



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EC635-05.11-E. Designed by Eurocopter - Photos: Remy Michelin - Frans Dely - EADS North America/RR - Eurocopter Deutschland/RR.

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