

VOILÀ EUROCOPTER !

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Eurocopter is a successful company and produces large series helicopters for both civil and military markets. Sometimes one is lucky to see a gathering of different Eurocopters on an air fete. Such an occasion can be encountered on Dax airbase in case of shows for the public. So deeply inside France you could say the smell of Eurocopter is everywhere and this was also the case on Dax last year. Some recent types were showed to the public. We are talking about the EC-725 Caracalle and EC-665 Tigre of the French Army ALAT and the EC-145 of the French Gendarmerie which last helicopter serves already for some time. Also the well known Cougar, Gazelle and Colibrie were present on this occasion. It is quite interesting to scope on the newest Eurocopter types.

EC-725 MULTI MISSION HELICOPTER

De EC-725 Caracalle multi mission helicopter is the latest Cougar development. At the moment he is introduced in French Air Force and Army. The aim is to have the ultimate helicopter for one of the most dangerous mission types, which is Combat Search & Rescue (CSAR). This concerns missions deeply in enemy territory to recover own people behind enemy lines. Maximum advanced and updated technology is available in the Caracalle which is fully self supporting and mighty with a lot of firepower when you meet this giant in a confrontation. He is utilised to transport 19 people which could be fully armed special forces. Also casualties on stretchers can be transported and in case of emergency a maximum of 29 people can be airlifted. In the front are two 7.62 mm. machineguns and a 20 mm. canon mounted. On both sides of the helicopter is a hoist available to bring people up or down twice as fast. On the front a probe enables a mid-air refuelling to extend the range of the helicopter.

To reduce weight as much as possible much composite material is used in the fuselage and therefore more armour could be used to protect from outside machine gunnery. The Spheriflex rotor head is very strong with five blades of composite material. The engine has an up rated thrust of 14 % when comparing with standard Cougar variants and is controlled by Full Authority Digital Engine Control (FADEC). Infra red suppression systems are fitted to reduce the infra red signature considerably. In the glass cockpit is a new lay out with 7 active matrix suppression LCD's and the Advanced Helicopter Cockpit & Avionics System (AHCS) has an automatic flight control system with integrated tactical and navigational systems. Navigation includes a classical Doppler radar system, GPS and inertial navigation and a Forward Looking Infra Red (FLIR) system. Typical flight patterns can be programmed. When dreaming about the ultimate helicopter; this is a candidate.

EC-665 TIGRE

The Tigre is of a quite other proportion. The type is a special attack helicopter and a concurrent of the Apache although the Tigre is of a later generation. A long period of development and experimental trajectory was needed to create the helicopter where it stands now. It is never easy when different countries must meet each other in a concept when the requirements are of the own different opinions. So there are different versions for different countries but eventually everybody in the project is satisfied. The French version is called Tigre HAP/HCP which means Hélicoptère d'Appui Protection/ Hélicoptère de Combat

Polyvalent or support and escort of multipurpose combat helicopter. In the meanwhile an improved version called the HAD or Hélicoptère d'Appui Destruction saw life and stands for support and attack helicopter. The version is very much the same with the Spanish variant and has improved MTR-390 engines with 14 % more thrust. The fuselage of the Tigre is constructed with 80 % carbon fiber-plastic, very strong and capable to resist birdstrikes and even a hit of a 23 mm canon. The HAP itself is equipped with 30 mm GIAT canon and is capable to carry four Mistral air-to-air rockets and is very favourable to be your escort when operating in hostile environment. Also eight Tigrat rockets against ground objects such as tanks or PARS 3 LR anti-tank rockets like on the German version or even Hellfire rockets known from the Apache could be used as weaponry.

Other unmistakable needs are the radar and laser warning receivers (RWR & LWR), flare launchers, FLIR, TV and laser range finder. The Tigre has got it all. In the glass cockpit is an electronic warfare suite installed and HF, MF, VHF and UHF radio's, SATCOM receiver, GPS, datalink and HUD. The gunner has the ability of a helmet mounted sight provision. In every possible way visual, infra-red, radar and noise profiles are reduced as much as possible. A very potential helicopter indeed. When acting before your eyes, above the ramp, the helicopter is very agile and a beauty to see it hovering.

EC-145 RESCUE HELICOPTER

The EC-145 was a mutual development of Eurocopter and Kawasaki Heavy Industries. Based on the Kawasaki BK 117 C1 with an avionics upgrade from the EC-135 the EC-145 was called BK 117 C2. First user became the Sécurité Civile with an order of 32 examples for Search and Rescue activities. Some 8-9 persons can be transported but also two stretchers with casualties can be side by side placed in the back of the helicopter. A strong hoist is fitted to bring in casualties together with a rescuer. Also on the EC-145 much composite material is used and a lot of new features are in the cockpit like a three axis auto pilot with special programmable hover trajectories. The glass cockpit is fitted with a Thales Avionics MEGHAS Flight Control Display and data are projected on active Liquid Crystal Display's. The helicopter is compact and also capable for a wide scope of missions. When acting under alpine conditions the circumstances are much more demanding. The Sécurité Civile is operating the type in nearby Pyrenean mountains and in the French Alps. A few accidents have occurred but so far this did not lead to failure of Eurocopter technology and if something could be improved, Eurocopter will surely do.

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