

SWISS EC-635 SUCCESSOR OF ALOUETTE III

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When Switzerland wanted to withdraw the Alouette III permanently after so many loyal years, and was looking for a successor a program was launched in the form of Light Transport and Training Helicopter (LTSH). The sequel was very surprising, the Eurocopter EC-635. The EC-635 is a militarized version of the successful civilian EC-135. As to quality something could be expected of this helicopter although only a few had had been looking around on this area.

ASSEMBLY IN SWITZERLAND

The EC-635 was certified in 2001 and was actually a product that saw the light at the request of the Portuguese army, although it was not an order. The first order came from Jordan. They received their nine EC-635's between 2002 and 2003 for their airforce and later on in 2006 - 2007 another four EC-635 T2 +.

The Swiss did hear and see that Jordan gave positive feedback about the machine. In 2006, a contract was signed by the Swiss 'Armasuisse' with Eurocopter for the purchase of 20 EC-635 P2 + versions including two in VIP configuration. The first examples were delivered by Eurocopter in Donauwörth and 16 pieces were assembled by the Swiss RUAG Aerospace itself. RUAG Aerospace is located at the airbase Alpnach, where an important part of the helicopters is stationed., The maintenance is at level 4 the fleet at level O, Level I and Level D. Later on the Swiss order was followed by a major order from Iraq.

GADGETS AGAINST VIBRATION

The P2+ version is equipped with two Pratt & Whitney Canada PW206B2 engines with fully digital control by the Full Authority Digital Engine Control System. The latter is fine for the crew, but the first is extremely important for deployment in reconnaissance. Further vibration reduction is achieved with the built-in Anti-Resonance Isolation System (ARIS). The 'glass' cockpit is equipped with a Thales suite MEGHAS a flight control system with active matrix display crystal displays.

CABINE LAYOUT IS DIFFERENT

There are four different layouts with concerning the cabin layout. The VIP versions have four passenger seats. The utility and transport versions can carry 6-7 soldiers on special chairs and in the Medevac version is room for one to two stretchers and four to five medical attendants. To the side is a sliding door, and a "winch" can be used for SAR duties. The transport version has a load volume of 4.9 m³, At the back are two clamshell doors that can be reached and opened, thanks to the Fenestron lineup.

EFFECTIVE IN JOBS

There are possibilities for a searchlight, a FLIR infrared / optical camera unit, electronic equipment for observation missions and armament. The helicopter is ideal for light transport duties, observation tasks and rescue operations, and that of course is exactly what the Alouette III managed to carry out. Thanks to the much improved operating characteristics and the possibility of nightly operations (Night Vision Goggles) the crew can very well manifest in the high mountains under poor conditions. Other duties include supply of goods,

medical products and food in hard to reach locations. There is also a training task that prepares pilots prepared for the service on this helicopter or even the larger Cougar. This training includes "basic training", landing in the field and on the mountainsides and flying cargo. Tactical flying and instrument flying come forward out further training and nighttime operations. The control systems are largely following the Cougar helicopter and student pilots can do their experience in this to their own convenience. Compared to the Alouette III the EC-635 makes considerable more flight hours, it requires less maintenance, and has a larger transport capacity and thus the effectiveness has increased. The two VIP versions are stationed in Belp near Bern as part of the Federal Air Transport Service (FATS), they have replaced the Dauphin. The military version differs from the civilian version by the 'reinforced aluminum carbon' composite structure with hardpoints for armament, although these are not used by the Swiss. The EC-635VIP differs only by the absence of a 'winch' on the side and a hook at the nose. Switzerland has chosen his successor to the Alouette III carefully because they think it fits this way best into their concept.

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Crew:	1 pilot
Load:	1443 kg. or up to 7 soldiers
Length:	10.21m.
Height:	3.62m.
Empty weight:	1467 kg.
Max, start weight:	2900 kg.
Rotor diameter	10,2 m.
Powerplant	2x Pratt & Whitney Canada PW206B2 gasturbines 609 kW each
Maximum speed:	259 km/u
Cruise speed:	254 km/u
Reach:	650 km
Ceiling:	6095 m.
Climb speed	10,9 m/s
