

EYE IN THE SKY - CAE AVIATION

'Eye in the Sky' with CAE AVIATION

CAE AVIATION is situated on the Luxembourg Airport in a modest building with a relatively small hangar. Only a few will suspect that behind this company a world is hidden that would speak strongly to their imagination ! Discretion however is also a necessary policy of this company, and there are plenty of reasons for that.

Interesting work area

CAE AVIATION (by the way many times confused with the CAE concern in Canada well-known of the simulators) is a company that is active on a complete other area and actually exists already much longer than the simulator-giant. 'Our' CAE AVIATION is, together with two American companies, authoritative in the World on the field of AGSR-ISR (Air to Ground Surveillance and Reconnaissance-Intelligence Surveillance and Reconnaissance) and 'leading' in Europe on this territory. It's a mouth-full, but it means as much as that with the available high-quality sensors and data-processing in principle every thinkable order to search or investigate can be accepted ! Next to that CAE AVIATION executes orders in so many more aerea's in what they call 'aerial work', they really are all round in services not only in the air but also on the ground. It all started in the 70 years in the environment of maintainance and with a 'Pilotshop' which last was started in 1983 just from a small desk, and now grown to the third in size of Pilotshops in Europe. It has been settled in a separate building in town just nearby the airfield. Sale of components to individuals is a special world and especially to German- and French-speaking persons there is large sale, although there are also many transactions with Dutch customers also. Customers have their own way of how they wish to place their orders and they feel very much 'at home' at 'their dealer'. CAE Aviation understands that well, and serves them as so called 'silver' or 'gold' dealer for parts for large companies. Although a big market it is not enough to exist upon, and in 2005 a new item came up. The 'defence pole' has become this way in a few years the main part of the company. Maintainance now mainly covers the own fleet and is only accepted for external companies to fill up the eventual gaps in planning.

Service tailored

Our contact Mr. Luc is the operations manager and also head of department ASGR. He is held responsible for all missions of the company to watch and control in Europe and far beyond. Mr. Luc insures the direct connection to the ministries of defence of several countries for instance for help with military police tasks in which the ASGR department of the company is specialised. On the other hand companies call for commercial orders. Under the contractors we find also much well-known institutions and organisations such as UNHCR, FAO, USAID, EUFOR, Frontex and large oil societies. These tasks for shorter or longer periods and short call make that most of the fleet is constantly in the air.

Personell in general flies in scemes of five weeks up, and three weeks home respectively six weeks up and two weeks home depending the character of the operations. The fleet exists from one- and twin-engined transportplanes of which the six Cessna C-208B Grand Caravan (+ two in order) numerically form the main part of the fleet. Nest to that other types are in service like the Britten Norman BN-2T Turbo Islander and the Swearingen SW-3A Merlin III more or less in a comparable role. For the heavy transport works there are available a Short Skyvan SC-7 and three (soon four) CASA 212-300 of which one in Maritime version and also they have some more light aircraft for spraying activities Ayres Turbo Thrush or Tailwheel and for mountain-flight training a (PA-18 Super Cub).

High tech

Much more interesting are the ultramodern adaptations, both in the cockpit and concerning the gyro stabilised 'gimbals', same type as the latest version of the United States Navy Orions. These MX-15 WESCAM gimbals with electro-optical and infra-red sensors are mounted on the fuselage of the Cessna and the Islander, where the Merlin has a larger retractile MX-20. These have been equipped with EO scoffer Scope and wide angle laser illuminator. In combination with high definition vertical cameras it gives the aircraft the possibility to collect and provide very detailed images from high altitudes and we're talking about over 8000 ft or 3500 mtr. The cockpit is equipped with special features like digital moving map and extended HQ communication sets with UHF-VHF-HF frequencies and SATCOM, and very precise satellite navigationtools. Very important is the data-link system which is connected to the digitale moving map, which makes it possible to transfer 'near real time imaging' to permanent or mobile receiving-stations. These mobile receiving-stations can also be provided by CAE AVIATION together with IMINT (Imagery Intelligence) specialists who can process these images in extended intelligence.

Unnoticed presence

The aircraft use their small sound production (special four-bladed propellors) to circle unnoticed over certain aerea's at high altitudes. It will be clear that their presence over certain areas must be a secret hit and go sometimes. They do so with lights out, and they have a low visual and radar profile thanks to special paint. No one would expect them flying over you, which was showed us by recently declassified video's and pictures made with the MX-15/20 . Seamless smuggler and corruptive activities were recorded as well as human frontier-running at sea. The pictures were that sharp, that it was shown how border-police was bribed and money was handed over, and criminals got free, and this with infra red ! One will not be surprised that this is accepted as juridical evidence, and the concerning officers did not have a job anymore the next day... Suddenly the whole picture gets a very high 'James-Bond'level and we ask ourselves; Who are these people, invisible in the sky, but seeing and recording latterly everything ? Mr. Luc says that mostly is recruited by defences. It concerns specialists or if you like ex-special forces of the highest level who are adopted for their qualities. It becomes even more odd, when it appears that

CAE AVIATION on their turn trains special forces from different countries, among them France, Belgium, Luxembourg and The Netherlands. Who ever thought of that ? Even more, there is a special own airfield somewhere in the middle of France which is less known publicly ! The CASA's and the Skyvan fly here in an own restricted airspace of 25 NM up to flight level 200. The Dutch Air-Mobile Brigade for instance are trained here to learn all fine inn's and out's of parachute jumping even in the dark nocturnal hours. This concerns 'HALO' as well as 'HAHO' jumps (High Altitude Low Opening or High Altitude High Opening) techniques. This all from a complete training airfield with para-training camp equipped with all facilities. Though not complete enough yet, the runway will be extended to the caliber of receiving a CN-235. All pilots and sensor operators are NATO qualified and they all speak various languages.

Found by trade and industry

Activities also include humanitarian flights, reporting out of the air (such as for years the Skyvan worked for the 'Paris-Dakar Rally' and large TV-stations) but also instructed by the FAO to fight insect plagues in for instance in Northern Africa with Turbo Thrushes. Innovation is also found on the ground with avionica-experts who design combinations to make systems communicate with eachother. This way aystemintegration can be achieved included IMINT technology for own needs or customers. With techniques like LIDAR (Laser Imaging Detection And Ranging), Ground Penetrating Radar and 3D FTG (three-dimensional Full Tensor Gradiometry) technology, the department AGG (Geophysical reconnaissance) is able to examine under the earth surface to check soil conditions in bottom-layers, and the Cessna's fly services for geophysical research and survey to certain elements and raw materials. CAE AVIATION is the only company in Europe with I.A.G.S.A (International Airborne Geophysiscs Safety Association) recognition. These Cessna's are painted white, and are equipped with special measuring apparatus on the wingtips and tail.

New mission

Mr. Luc, a qualified PIC himself joked that he soon would have a new special mission to a not mentioned country which sometimes is given the name 'Greywater' This can implicate escort flights, discovering illegal migration or perhaps... a secret intelligence flight after all ? fact is that CAE Aviation is particularly skilled, which appears the 'Letter of Appreciation' of HQ EUFOR for their contributions in operation 'Althea' in Bosnie-Herzegovina. CAE AVIATION has a proper way of handling and is situated first row as it comes to new developments. In future we'll be hearing much more of them (or even just not ??.....)

Kees Otten & Wim Das
