

## Austrian Air Force in new concept

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Austria is facing a reorganisation and is bringing the units in a new command structure. Basically this will include two brigades, an air support brigade and a air defence brigade. The new structure will be a combined air force/army organisation and it will be a challenge for the commander to make it work.

### Joint command

While staff positions are conceived to form out of commanders from current units the feeling is that air fore commanders will feel more comfortable in a joint position and air staff is considered to implement more smoothly in the joint command. The new organisation is planned to be fully implemented at 01-01-2008 with a joint force headquarter formed out of an air force and army headquarter en is planned in Salzburg. The air defence brigade will consist of both passive and active air defence elements like anti aircraft armoury, radar and fighter/interceptor aircraft while the air support brigade will comprise the transport aircraft and helicopters. To have a good idea over the yet to form new force a review over the current air force units was made recently.

### Air Defence and Fighter operations

When the Saab J-35OE Draken after soldier on for some time was phased out and interim solution was found by the lease of 12 F-5E from the Swiss Air Force for 3 years. They fill in the gap between the Draken period and the acquisition of Eurofighter Typhoons in 2007-2008.. Currently the 12 F-5E are based at Nittner Air Base at Graz Thalerhof (LOXN)forming the 2e Air Surveillance Wing. The wing commander, Major Gunther Taschler explains the tasks of the F-5 squadron, the Panther Squadron. At this moment 21 pilots are active at Nittner of which 18 for the F-5E and 3 for the Saab 105OE. While basic tasks like defending Austrian air space oblige to form a Quick Reaction Alert (QRA) line up, the squadron must also train for intercepting techniques in the same time. The pilots get assistance by the Saab 105 pilots forming enemy aircraft in aerial fighting manoeuvres and giving the F-5E pilots the opportunity to become more skilled in 'dogfighting'. The QRA is set from spring 2005 to spring 2008 with F-5E. However capable of executing sustained defensive counter air operations day and night QRA is only carried out from sunrise to sunset caused by limited pilots and aircraft.

When situations require a different level like important summits with prominent world leaders if just so was the case with the visit of President Bush and the European presidency the QRA level can be up to 24 hours. In such cases there are continuously combat air patrol's (CAP) in the air. Normally two F-5E's are on alert with two M-39A 20mm guns (2 x 280 rounds) and two AIM-9 P4 or P5 Sidewinder

missiles and two pilots ready to go and one spare F-5. One aircraft is in the air in 5 minutes and both in 7 minutes. In a CAP there can be an affective immediate response. With extra fuel tanks a CAP can be maximised to 1,5 hr. for a single F-5E. The F-5 E's in Austria have some modifications following regulations to comply with civil rules in the Austrian airspace and therefore ILS, both separate UHF and VHF transponders and a combined backup are required. In comparison Swiss F-5E's only use UHF communications. Pilots go to Switzerland with regular intervals where specific live training exercises were on the program like dogfight instruction against Swiss F-5E's and air-to-air gunnery exercises from Sion Air Base. Several pilots joined the international Amadeus exercises in Switzerland in 2001 and 2002. This pilots were formerly Draken or Saab 105 pilots. In other occasions before Draken pilots got the opportunity to skill themselves in Dissimilar Air Combat Training (DACT) in Payerne or dogfight training at the ACMI range in Waddington in the Draken period and some pilots gained experience at modern, partly glass cockpits in the Swedish Air Force Viggens at Angelholm. Draken pilots needed a conversion of 4-5 weeks to the F-5E while Saab 105 pilots need 8 weeks to accustom first to new elements like engines with reheat and supersonic speed.

### **The F-5 is popular**

Pilots thought to be sad to abandon the Draken for the F-5E but discovered in the F-5E another favourable aircraft. The Draken has better acceleration but also more weight. The F-5E with less power but also less in weight scores in the same power level but with better aerodynamics. The aircraft shows less drag at higher angles and proofs to be a really good interceptor at high altitude combined with easy slow speed handling characteristics. The F-5E lacks some modern cockpit instruments like a HUD and while heading forwards for the Eurofighter to arrive in 2007 pilots have to go to Laage Air base in Germany to train on Luftwaffe Eurofighters and become familiar with the environment of the latest avionics exploring what is possible in a new dimension of abilities.

Eighteen Eurofighters will form a new squadron at Zeltweg Air Base within the air defence brigade. Due to logistic aspects and cost effectiveness the choice is made to base all the Eurofighters at one air base. Four Saab 105 will also be located at Zeltweg to represent training counterparts. At this moment three of them are joining four others at Graz and are on permanent lease from the 3e squadron/fliegerregiment 3 at Horsching. In the end of 2008 the f-5E go back to Switzerland but the lease could be lengthened when the Eurofighter arrives to late.

### **Preparations for the Eurofighter**

The political thoughts in Austria are like in Switzerland. When you want to participate in an European safety system you have to contribute also. The ability to join missions in disaster area or peacekeeping missions are not the only type of missions which can occur in the European theatre, sometimes involvement in multilateral actions can ask for combat elements. Austria wants to be prepared for all circumstances with

good equipment (Eurofighter, Hercules, Blackhawk). With about only 0,8 percent of the BNP consumed by defence the flow of money is not huge and cost reduction must be found in logistics and effectiveness. When the Eurofighter arrives there must also be money available to operate the aircraft the way they are intended to use including cooperation with other European air forces and NATO AWACS systems. Together with the 18 single seat Eurofighters some 1800 simulator hours and 1800 flying hours with support were bought from DASA. The plane has a carefree handling system and is easy in learning to fly.

### **Air regiment 3/ Fliegerregiment 3 with unique inventory of aircraft**

Located at Vogel Air Base in Horsching (LOXL) nearby Linz air regiment 3 has a unique structure in operating a mix of jet aircraft, transport aircraft and helicopters. However at this very moment the Austrian Air Force entered the reorganizing trajectory which will result in a split up of this units in a new structure. Austrian Air Force is employing within Air Regiment 3 four squadrons (staffels) until now including 1 & 2 squadrons with AB-212 helicopters, 3 squadron for jet training with Saab 105OE and the transport squadron with Lockheed C-130K. Command & Control facilities are planning and coordinating exercises and guarantee combat readiness. A Combined Air Operation Combat Centre (CAOCC) is communicating directly with army headquarters. The 1st squadron is operating 12 AB-212 while the 2nd squadron operates 11 helicopters. One lost helicopter is likely to be replaced with a second handed one from the civil market.

The AB-212 is a very suitable helicopter in the mountains and a workhorse for air transport and support transporting totally 14 persons but carrying three bran cards and 7 persons in the back is also a possibility. Special missions are geophysical measurements and one AB-212 helicopter provides assistance with border monitoring for the MOL (Ministry for interior). Finally one AB-212 is operating for KFOR in Bosnia. The choice was made to operate a AB-212 which is much cheaper to exploit instead of a Blackhawk.

### **The Lockheed C-130K Hercules, proud of the transport force**

Since 2003 the Austrian Air Force have there much needed heavy transports with three C-130K's. Those formerly RAF airplanes were bought on a government to government agreement and improved and modified by Marshall Aerospace in Cambridge to meet Austrian requirements on navigational abilities. The Cockpit was improved with new navigational equipment and avionics including the latest weather radar equipment. The Hercules was besides local transport also bought for operations abroad like a sufficient supply of goods and personnel to missions in foreign countries under UN flag like KFOR in Bosnia. Next to this Austria wants to evacuate there own people back to Austria like from Beirut recently if necessary or bring humanitarian aid to areas of world disasters. In the major Indian Ocean Tsunami disaster Austrian Hercules aircraft made flights of 9 hours duration at once.

## Saab 105OE and Flight Training School

Twenty Saab 105OE are serving at Vogel Air Base in the role for basic and advanced flying training and air combat training. The Aircraft flying with the 3e 'tiger squadron' (Dussenstaffel) can be partly generated for secondary tasks like ground attack missions or even interception missions (identification only). A special task for the Saab 105 is representation for triple A. After 120 hrs in a 1-2 years period a cadet is fully qualified for all type of missions with the Saab 105. Some plans are made for a limited upgrade with some new cockpit instruments but the question is of money can be generated for this, on the other hand reducing flying hours for all the planes could provide some cost effectiveness. In the new structure the tiger squadron stays at Vogel but will report to the air defence brigade. One Saab 105 is in tiger colours to meet other contenders on tigermeets and provide aerobatic shows. Two Saab 105's are configured in the so-called VIP version and can take four persons instead of two.

## Elementary training at Zeltweg

The chief flying instructor captain Koll responsible for phase 2 basic training for flight cadets on the Pilatus PC-7 of Hinterstoisser Air Base at Zeltweg( LOXZ) reports that the new transformation will also affect the fliegerschule (Flight Instruction School). This will put together with the weapons school to one Aviation & Air Defence School with HQ in Langenlebarn and a department in Zeltweg to be operational from 01-01-2007. Pilot training will be concentrated at Zeltweg including conversion to Eurofighter, Hercules or Blackhawk/AB-212 helicopters. Pilot courses on the PC-7 are basic or advanced while the PC-7 also contribute in watching air space by identifying light aircraft since the nine-eleven world trade centre attack forced Western countries in the world to guard more strictly. Elementary training includes Visual Flight Rules (VFR) day/night navigation, Instrument Flight Rules (IFR) flight instruction, aerobatic training and two ship formation flight training. The combined military/civil elementary training is considered a bonus for aspirant pilots to get attracted to the military. Attempts are made to create similar salaries in civil and military organisations to avoid back stream to the other organisation The initial or first phase of the flight training is at Graz with Austrian Airlines Cessna C-152 for 25 hours/2 months at the Austrian Airlines School.

Choices can be made to choose a civil or military career. Since the cooperation is so tight typical routes can be different and some military pilots are in fact voluntary training in the military service without having followed the military academy.

In the military after some 125 hours/11 months on the PC-7 the choice can be made for jet pilot to the Saab 105 at Vogel and later on F-5E or Eurofighter, or a choice for transport aircraft with first 80 hours on the PC-6 at Langenlebarn and staying on the PC-6 or go further on the Short Skyvan (11 months)or Hercules (in this case pilots go to the UK) To become a helicopter pilot after the C-152 the route leads you to Langenlebarn for 80 hours/ 8 months on the AB-206 to fly afterwards on the OH-58, Alouette 3, AB-212 or Blackhawk in different squadrons. The goal is to generate

about 10 pilots for helicopters and 6 pilots for fixed wing aircraft out of 800-1000 initially physically tested. The initial conversation on various helicopters and fixed wing aircraft (incl. Saab 105) is at Zeltweg.

### **Combat training and flight instructor course**

Flight Instructor courses for fixed wing and helicopter pilots are also in cooperation with Austrian Airlines. Since experience is very valuable those pilots leaving the frontline squadrons at age 45-50, especially the fighter pilots are not retiring but will serve as instructor pilots at Zeltweg, after following the flight instructor course. Experience will be needed to learn the cadets all the extra's. On the PC-7 some combat readiness is trained with air to ground training while some of the 16 PC-7's are fitted with two rocket launchers with 7 cm rockets or gun pods with 12,7 heavy machinegun. Regular deployments of one day to Emmen Switzerland enables cadet and flight instructor to operate in other navigational flight conditions and the students finding in the PC-7 a forgivable aircraft when mistaking. The plane recovers itself when the hands are of throttle and stick. Other courses on Zeltweg like NCO courses (Non Comissioned Officers), leadership courses or other courses not related to direct flying could probably move to another place and structure in the new organisation.

### **Langenlebarn today's main base**

Tulln Air Base (LOXT) in Langenlebarn west of Vienna is still the headquarter but a serious reorganisation of command is proceeding at the moment including land forces command, air force command, special forces command an interoperations command. The result will be a super command with locations in Salzburg and Graz. After 31-08-2006 all obligations are dedicated to Austrian Forces Command. Loosing command staff functions the air base is to concentrate on flying activities. All current elements will be incorporated in the transport brigade. Today in Fliegerregiment 1 the light/medium transport elements are operating from Tulln with two Short SC-7-3M Skyvan medium transports and 13 Pilatus PC-6B2-H2 turboporters light transport aircraft for liaison, transport and airdrop duties (7 persons or 800 kg). Next to this a fairly large quantity of helicopters are based here with different tasks like the AB-206, the OH-58B Kiowa and the Blackhawk . The only types not to fly from Tulln are the Alouette 3 flying from the support post of Aigen (LOXA) in the mountains were the helicopters provide SAR duties and the AB-212 which were moved from Tulln when the Blackhawk replaced them.

### **The need of a capable helicopter force**

In a country like Austria where many places can only be reached by helicopter and where weather circumstances can isolate large area's helicopters are indispensable for aid. Some disasters (like the avalanche disaster in Galtur) in the past showed that helicopters with enough capacity to evacuate lots of people are very needed. This is why the Sikorsky S-70A-42B Blackhawk was chosen to strengthened Austria's helicopter force. Other circumstances asking for helicopter assistance are aid in the



mountainous locations or fire fighting. The Blackhawk of which 9 are in service since 2002 with the 1st staffel is one of the most advanced of this type in the world, even more advanced than many examples in the united states military forces and it is quite interesting to zoom in at this one. The glass cockpit for 2 pilots has 4 Multifunctional Colour Displays (MFCD), digital map, Night Vision Goggles capacity and advanced weather radar in the nose. Some very advanced ECM features are fitted like an AN/AAR-54 MAWWS (Missile Approach Warning System), an AN/ALQ-144A IRCM (Infrared counter measures/IR jammer, an AN/ALE-47 TACDS (Threat Adaptive Counter Measures Dispensing System) for chaff and flares, an AN/AVR-2A LWS (Laser Warning Receiver) and a AN/APR-39 RWR (Radar Warning Receiver). This making the helicopter very protective against enemies The engine intakes have a HIRSS (Hover Infrared Suppressor System) with covers and the rotor has titanium blades with very little vibrations transmitted.

The Blackhawk can transport 19 passengers, 16 soldiers or six wounded at bran cards or max 4860 kg of freight. The helicopters are tasked not only for transport but also para dropping and fire fighting actions with a bucket filled with water under the fuselage. Area's for aid could also be abroad like in 1998 when Austria received a request from Croatia. The Blackhawk has a range of 500 km which can be extended with the External Stores Support System (ESSS) of 4 external tanks with 870 l fuel each to 1600 km. Altogether this making the Blackhawk the most potent helicopter in Austrian Air Force. Experienced Blackhawk pilots could even optional proceed their career on the Eurofighter if they choose so.

### **Other helicopters with different tasks**

Fliegerregiment 1 is training the crews many times in the high alpine area's with several missions, this include the helicopters but also the PC-6 on ski's. Often this are SAR trainings or how to find an good spot to land. The regiment is making 1800 flying hours a year with approximately 200 hrs a helicopter and 200 hrs a pilot.

The 11 AB-206A are mainly used for training in the helicopter flying school and the 11 OH-58B Kiowa's have utility functions. The Kiowa's are acting in the surveillance role, especially border patrol to discover illegal border crossings. For this a secondary location is operated at Wiener Neustadt (LOXN) with 6 grass runways where frequently PC-6 and SC-7 Skyvan's are visiting and 4 OH-58's are based since 1999. The OH-58's have modern avionics installed like digital moving maps and Night Vision Goggles on the helmet., advanced radar and infra red imaging technology to track persons in the dark Another task for the Kiowa's are simulated anti tank helicopter attacks on mechanized infantry brigades. Another OH-58 secondary location is Allenstein (LOXE). The location Aigen will be linked to Tulln in future structure. Aigen is like Graz object of discussion to seize as an active base but there is also still support for the thought to have locations in the mountains for direct access in this area's. Costs will be evaluated to decide what is really needed. Civil airfields can be used, but are they save against terrorists is the question. The aircraft of Tulln gets their maintenance at Fliegerwerft 1 (FIWft 1) being the biggest of all

fliegerwerfts an responsible for maintenance and modifications at the AB-206, OH-58, PC-6, Skyvan and Blackhawk. The Fliegerwerfts are incorporated in the Militar Luftfahrt technische Logistischen Dienste (MLLD) and other Fliegerwerfts are located at Zeltweg (FIWft 2, Saab 105/PC-7), at Horsching (FIWft 3 AB-212) and Aigen (FIWft 4, Alouette 3).

### **Future operations.**

On this very moment Austria is awaiting the Eurofighter and concentrating on that. Small projects like avionics on the OH-58 are still actual but the reorganisation of commands has priority of interest. Future operations are also focussed on more cooperation with surrounding countries in Europe. For the flying assets Austria will profit from good qualities of the airplanes and will marching on to 2010 with the current equipment.

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