

Jürg Nussbaum



The Swiss Air Force – Air Power is Key

The Swiss Armed Forces form part of the Swiss security network. The tasks they undertake are defence, providing support to the civilian authorities and contributing to peace support in an international context.

These days, the main focus in defence is on maintaining and developing existing capabilities. The objective is to provide the required resources of a high quality standard but a minimum number.

The Air Force is responsible for fulfilling the Armed Forces tasks in air operations according to the directives of its superiors. It does this by protecting Swiss airspace, ensuring air mobility, and acquiring and disseminating information for both the political and military authorities.

Airspace Protection

The Swiss Air Force (SAF) protects the airspace by permanently maintaining air sovereignty and, in the event of a crisis, monitoring the airspace.

The Air Force cooperates with civilian authorities and with foreign countries according to political requirements. In order to maintain air sovereignty, it carries out air policing measures.

Airspace surveillance is more comprehensive than the maintenance of air sovereignty and ensures freedom of movement for air and airborne operations. Both the defensive and offensive operations contribute to airspace control. Currently, the SAF confines itself to defensive operations but shall regain its offensive capability with the GRIPEN.

Key Role: Air Power

Today and in the future, air power is a key capability in the Swiss Armed Forces' spectrum of tasks. However, the situation in Europe must be considered as well. Even though the number of combat aircraft has been reduced dramatically since the end of the Cold War, some European Air Forces have considerably expanded their range of capabilities. Maintaining air sovereignty in times of peace is crucial in general. The 9/11 attacks prove that a threat from the air can occur unexpectedly and have fatal consequences. Recent conflicts such as those in Libya and Afghanistan have shown how important modern air forces are. This does not only put the focus on military capabilities but also on the support of humanitarian missions, where reconnaissance and monitoring resources, as well as air mobility play an important role.

In military conflicts airspace monitoring is of crucial importance. Previous armed conflicts have shown that achieving air supremacy usually requires a dynamic process involving both defensive and offensive air power capacities. A small country like Switzerland, which basically intends to carry out its defence operations autonomously, must prioritise air warfare accordingly.



A project to replace the UAS 95 has been launched and procurement is planned as part of the 2015 Armament Programme. (Photo Swiss Air Force)

Reconstruction

Due to a lack of resources, the Air Force abandoned its air support capability in 1994 and its operational reconnaissance capability in 2003. They must now be regained. This is planned to be achieved with the procurement of 22 state-of-the-art GRIPEN combat aircraft, which not only means training additional pilots but also adapting the planning processes in the military staffs. For this reconstruction Switzerland is interested in cooperation with friendly air forces.

The SAF also plans to maintain and develop its proficiency in unmanned aerial reconnaissance and is pressing ahead the acquisition of a new UAV system.

The GRIPEN Deal

In order to continue fulfilling its mission, the SAF needs to replace their outdated 54 F-5E/F TIGER. The JAS-39E/F GRIPEN has been chosen to complement the 33 F/A-18C/D HORNETs. The plan is to purchase 22 GRIPEN as part of the Armament Programme 2012 and have the aircraft delivered in 2018.

The primary mission of the GRIPEN will be to complete the F/A-18 fleet in its role as an air superiority fighter. The HORNET and GRIPEN fleet together will enable the SAF to perform long term air policing missions such as conference protection or permanent airspace surveillance (quick reaction alert). Equipped with AESA technology radar, a state-of-the-art EW suite and the METEOR missile, the GRIPEN will become the leading edge fighter in Switzerland.

The GRIPEN will allow the SAF to reintroduce air reconnaissance capability, which was given up in 2003 with the phasing out of the MIRAGE IIIRS. The GRIPEN will be equipped with a reconnaissance pod enabling the sending of near-real-time reconnaissance results to a ground station.

With the phasing out of the HUNTER aircraft in 1994, the SAF lost its air-to-ground capability. The GRIPEN will enable the reacquisition of this capability too. To regain the lost experience the SAF will start with dual-mode (GPS/INS-laser) bombs in the 500lb class such as the GBU-49. The GRIPEN will be equipped with a laser designator pod. The reconnaissance and air-to-ground roles will be performed

by a small number of aircraft. Depending on the needs, all aircraft will perform air policing or counter air missions (air-to-air).

The JAS-39E/F GRIPEN fulfils the SAF requirements. It will together with the HORNET fleet enable increase of the persistence in both air policing missions and counter air operations. In addition, the aircraft will allow Switzerland to regain its lost air reconnaissance capability. The GRIPEN will enable the SAF to support the ground forces by performing counter air operations such as close air support and air interdiction.

Future Projects

The annually revised Armed Forces Masterplan covers a time period of eight years and translates long-term directives from the defence strategy planning process into short to medium-term, integrally balanced measures. Based on the Masterplan the following major projects of the SAF have been approved with the armament programmes by the Federal Assembly or are planned for the next years.

- The procurement of 20 EC-635 (among them two of the special type EC-135 VIP), approved in 2004, has been completed, and the helicopters have been operational since 2010.
- The 15 Super PUMA AS-332 are being upgraded to a similar standard to the COUGAR AS-532 helicopters. This upgrade, including the Super PUMA full flight simulator, was approved in 2006 and will be completed in 2015.
- With the Armament Programme 2006, six PC-21 trainer aircraft were purchased and the procurement of another 2 PC-21 trainer aircraft was approved in 2010. The fielding has been completed in April 2012.
- The mid life update for the F/A-18 combat aircraft was approved in 2008 and several hard and software updates have been carried out. Two prototypes, one F/A-18D and one F/A-18C are flying. Fielding will be completed in 2015.
- A partial replacement of the medium-range air-to-air missile AMRAAM AIM-120B with AIM-120C-7 was approved in 2011.
- A project to replace the UAS 95 has been launched and the procurement is planned with the Armament Programme 2015. Evaluation of the candidates will take place in Switzerland in autumn 2012.
- The upgrade of the 11 COUGAR AS-532 helicopters is planned in the second half of this decade in order to ensure operation of this fleet for the coming decades.
- Until 2025, all GBAD (Ground Based Air Defence) systems of Anti-Aircraft Training Unit 33, the 35 mm Gun 63/90, RAPIER and STINGER, must be replaced. A project has been initiated and procurement is planned by the end of the decade.



Col. Jürg Nussbaum is Head of Public Information Swiss Air Force.