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MILITARY AVIATION AUTHORITY

Schweizerische Eidgenossenschaft
Confédération suisse
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Confederaziun svizra

Swiss Armed Forces
Swiss Military Aviation Authority MAA

Content

2 – What we do _ Our mission _ Our vision _ Who we are

4 – Airworthiness

6 – Air Traffic Management (ATM) & Infrastructure

9 – Air Operation

11 – Defence Aviation Safety Management

13 – Swiss Air Force Aeromedical Institute

14 – Environment and Partnership

15 – Compliance and Quality Management

16 – Emblem

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Head of the Federal Department of Defence, Civil Protection and Sport DDPS, Federal Councillor Viola Amherd

MAA, just three letters but a significant change for the Swiss military aviation. In today's rapidly evolving world, where aviation is discovering a totally new range of operation with the emergence of drones and where access to airspace will soon be utmost critical, I am deeply persuaded that the only way to achieve a maximized level of safety without prejudicing the operation in the interest of the state, is through magnification of the synergies between civil and military authorities. My predecessor has therefore ordered in 2017 the creation of the newborn Swiss MAA with the aim to maximize the coherence with FOCA, while highlighting the specificities and needs of military aviation. The project team, under the lead of colonel GS Pierre de Goumoëns, was able to plan and initiate its deployment within a very short time period. I am very grateful to the whole team.

Director of FOCA, Christian Hegner

For decades, civilian aircraft and the Air Force have shared Swiss airspace. As a result, we have long had to work closely together to guarantee everyone the safe and efficient use of airspace. We very much welcome the establishment of the MAA, as challenges in airspace management are becoming ever more complex and demanding with the emergence of unmanned aerial vehicles. With the MAA, we now have a partner organisation with which we can better share our concerns and achieve faster results. We are looking forward to working with the MAA to tackle the many challenges we face in ensuring the safe coexistence and cooperation of civil and military aviation both now and in the future.

Director Military Aviation Authority, Col GS Pierre de Goumoëns

Establishing a new authority in a working environment is a tough challenge, but it is also a unique opportunity. I am firmly convinced that through open, clear and concise communication, the MAA can rapidly achieve widespread acceptance. Furthermore and most importantly, the MAA must be perceived by the entities that it regulates as the oil that lubricates the machine and never as a spanner in the works. During the first stage of implementation, the balance between the set-up effort and the first acts of the authority will be critical, but I am still very confident that, thanks to my highly motivated and creative team, we will be able to achieve our objectives.

What we do

The MAA in its regulatory role provides, through coordination with FOCA, the framework within which the Air Force and other state players in military aviation can evolve as freely, efficiently and safely as possible. In its oversight role, the MAA helps state players to comply with the regulations, identify variations and divergences, and propose mitigating action. Finally, yet importantly, the MAA provides a coherent procedure for the certification of new systems. The MAA, as a strong partner for military aviation regulation and oversight, facilitates the identification of roles and responsibilities on a daily basis as well as in the event of incidents or accidents. Furthermore, as a strong entity, it is responsible for defending the interests of military aviation in Switzerland and abroad.

Our mission

The MAA is the independent organisation responsible for regulation and oversight in military aviation, and has the following objectives:

- It creates the framework required to ensure operational efficiency with the optimum degree of safety: ***'Mission first, safety always' / Regulation***
- It monitors compliance and initiates corrective measures: ***Oversight***
- It ensures that risks are addressed appropriately and are accepted according to the right level: ***Risk management***
- It promotes a culture of safety in aviation: ***Culture***
- It represents in the area of responsibility the interests of Swiss military aviation at national and international levels: ***"Unité de doctrine"***

Our vision

With service continuity as our first priority, we aim to achieve the following goals:

- Ensure the smooth integration of MAA processes into the established activities of Swiss military aviation.
- Maintain active cooperation with internal and external partners and create favourable conditions for establishing the Swiss MAA as an independent authority.
- Develop an effective regulatory system and implement it as a newly created authority.

Who we are

The MAA was created on 1 January 2018, combining several entities from the Air Force and armasuisse. Air force experts, primarily from the Flight Safety Department and the Military Aviation Regulation, have teamed up with armasuisse Certification, Quality Management and Airworthiness staff to form the core of the MAA. By reorganising, optimising processes and reducing redundancy, we aim to maximise our output without neglecting the former tasks of our 40 employees.

The organisation

The executive board of the MAA leads a team of experts in flight safety, ATM and airfield infrastructure, flight operations and the airworthiness of aviation systems. Although embedded in the Armed Forces Joint Staff administration, the Chief of the MAA reports directly to the Head of DDPS.

Airworthiness

- Aircraft design, production and certification
- Flight test
- Continuing airworthiness management
- Requirements for maintenance organisations
- Requirements for maintenance check flights
- Aircraft maintenance personnel licensing
- Aircraft maintenance training organisations

Airworthiness is the ability of an aviation system to provide safe operations for the intended use under approved conditions and limitations. New or modified Swiss military aircraft are subject to an airworthiness certification process leading to a military type certificate.

What we do

The Swiss Military Airworthiness Authority:

- Verifies design or construction compliance with the aviation safety requirements. Its qualified certification engineers and the relevant experts define and verify compliance with these requirements and issue the relevant military type certificates and the major change approvals.
- Makes sure that all aircraft produced or parts based on the approved type design meet the relevant aviation safety requirements. Qualified airworthiness inspectors examine their conformity to the type design and issue the appropriate certificates of airworthiness.
- Makes sure that all airworthiness-related activities are performed within a controlled environment. Qualified aviation auditors monitor the approved military design, production, maintenance and continuing airworthiness management that provide services to Swiss military aviation. Where appropriate, these activities are performed in cooperation with the Federal Office of Civil Aviation.
- Delivers effective and coherent regulations that are consistent with MAA policy by involving the relevant experts and the persons and bodies concerned. The Swiss Military Airworthiness Authority is also working to harmonise military airworthiness requirements and its regulatory approach with other nations to simplify collaboration on aviation projects and to facilitate the recognition of foreign military airworthiness authorities in order to reduce duplications.

Air Traffic Management (ATM) & Infrastructure

- Air traffic management
- Communication, navigation and surveillance
- Meteorology
- Aeronautical information publication

What we do

In the evolving environment of airspace structure optimisation and dynamic airspace management, the ATM & Infrastructure Authority within the Swiss MAA preserves the all-important access to airspace for military aircraft, according to current and future operational requirements and in the primary interest of air sovereignty. By doing so, it makes a vital contribution to the operational performance of the Swiss Air Force, while maintaining the required level of safety.

The ATM & Infrastructure Authority issues regulations and standards for the provision of air navigation services for military air operations.

Typically, it fosters a broad understanding of military aviation as a total system by integrating air traffic management related aspects into procedures that are traditionally command-controlled. To this end, the ATM & Infrastructure Authority also covers all facets of international cooperation regarding airspace functionalities and management. It provides reports and studies to keep track of the overarching impact on national air power capabilities.

In any mission-related, restricted airspace environment, the ATM & Infrastructure Authority provides the chain of command with adequate and effective airspace coordination plans and orders.

The ATM & Infrastructure Authority acts as the MAA's primary interface with the civil aviation authority for regulating national and cross-border air navigation services and for the strategic planning of air traffic management at a regulatory level. This includes gap analysis regarding the civil use of military aerodrome infrastructure and all necessary supervisory proceedings in this regard, such as audits and validations. Finally, the ATM & Infrastructure Authority contributes to safe operations at every Swiss military aerodrome, by taking account of the specific needs and requirements for the infrastructure and by striving for smart harmonisation where beneficial.

232

Air Operation

- OM regulation
- Wind parcs
- Obstacle management
- Instrument flight coordination
- Territory and environment

What we do

Air Operation Authority is responsible for the Operational Manual OM-A, which defines and regulates the procedures for carrying out missions with the highest possible level of safety.

It encourages the construction of alternative energy sources such as wind parks by analysing the impact on military systems and procedures. It coordinates and analyses the feasibility of such projects and keeps the control of all objects that might become a factor for the operation in military aviation.

It is responsible for the instrument flight rules (IFR), procedures and approaches to military airbases and networks. It also acts as interface for establishing new procedures and new technology systems.

It develops and implements guidelines and measures for achieving and maintaining environmental compliance and improving environmental performance. It protects the natural environment around military infrastructure and operations under control to fulfil the required military missions.

3
69

Defence Aviation Safety Management

- State Safety Program
- Aviation Safety Risk Management
- Defence Aviation Safety Investigation Board (DASIB)

What we do

In addition to creating favourable conditions for ensuring the necessary operational capability, the MAA is also responsible for safety oversight ("policy").

Safety Risk Management (SRM) is a management tool used by the MAA to ensure a consistently high standard of safety in the operational and technical areas of military aviation.

The Safety Management of the MAA directs, coordinates and facilitates the activities of the MAA in relation to safety. It defines the processes, tasks, and the existing instruments and bodies within the supervisory authority. It has a strategic function and therefore reports directly to the Director MAA. The Chief of the Safety Management supports and advises Director MAA in the coordination and management of all safety-related activities of the MAA. In addition, The Safety Management runs and maintains the Safety Management System (SMS) of the MAA.

The DASIB is part of the MAA's Flight Safety Division and is administratively attached to the MAA. In the exercise of its professional activities, in particular in the context of investigations, it guarantees its independence by reporting directly to the Head of the Federal Department of Defence, Civil Protection and Sport. Its investigations are conducted on the basis of ICAO Annex 13 and the standards of international military investigation authorities.

Safety investigations aim to improve the safety of the military aviation and to prevent accidents and incidents. However the DASIB is not responsible for assessing civil or criminal liability issues.

Swiss Air Force Aeromedical Institute

- Overall responsibility for all rules and requirements relating to aeromedical and flying-related psychological matters in the Swiss Air Force in cooperation with MAA.
- Selection and lifetime evaluation of aptitude for all pilots, aircrew members, aviation specialists and members of the Special Forces as well as other groups of specialists.
- Aeromedical research, development, education and training.
- Civil Aeromedical Centre, fully internationally accredited by the Federal Office of Civil Aviation in Switzerland (FOCA), EASA and FAA.

What we do

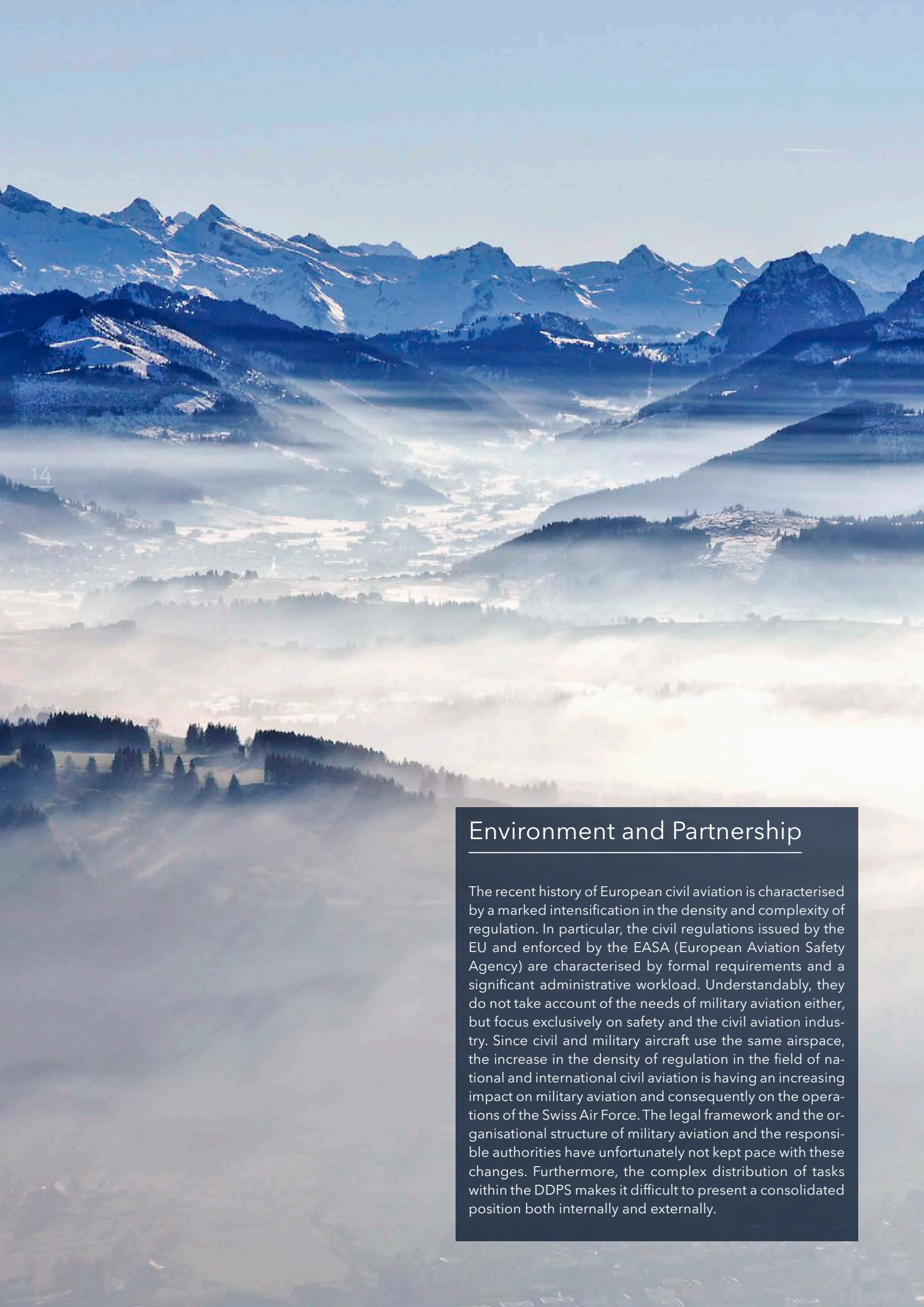
As the Swiss Air Force Aeromedical Institute, we have overall responsibility for all rules and requirements relating to aeromedical and flying-related psychological matters in the Swiss Air Force. We select all pilots, aircrew members, aviation specialists and members of the Special Forces as well as other groups of specialists through standardised but mission-focused processes and criteria. After this initial phase, we evaluate the selected personnel's aptitude for flying, parachute jumping and for missions in Switzerland and abroad on a regular basis. Whenever there is an issue of health – physical or mental – we are there for our personnel, treating them or coordinating their treatment with the best specialists in the country.

To be able to do this, it is essential that the Air Force personnel trust the Institute, that the Institute plays an integral part in the missions and has detailed knowledge of the challenges facing the personnel.

In order to achieve and maintain the state of the art, we perform research into hypoxia, sensory organs, psychology and other subjects. The knowledge we gain enables us to provide the personnel with better education and training that enhances human performance in aviation and integral flight safety. To increase the benefit, we work with military and civilian partners such as universities, other air forces, NATO working groups.

Besides these military aspects, the Swiss Air Force Aeromedical Institute is an internationally accredited aeromedical centre for civilian pilots and aircrews, fulfilling all the requirements and audited by FOCA, EASA and FAA. Furthermore, the Institute is an accredited polyclinic and a national training institution for doctors in general medicine, occupational medicine and for aeromedical examiners.

RUAG
22m³-KAMMER
AUF
ZU
8m³-KAMMER
Panasonic



Environment and Partnership

The recent history of European civil aviation is characterised by a marked intensification in the density and complexity of regulation. In particular, the civil regulations issued by the EU and enforced by the EASA (European Aviation Safety Agency) are characterised by formal requirements and a significant administrative workload. Understandably, they do not take account of the needs of military aviation either, but focus exclusively on safety and the civil aviation industry. Since civil and military aircraft use the same airspace, the increase in the density of regulation in the field of national and international civil aviation is having an increasing impact on military aviation and consequently on the operations of the Swiss Air Force. The legal framework and the organisational structure of military aviation and the responsible authorities have unfortunately not kept pace with these changes. Furthermore, the complex distribution of tasks within the DDPS makes it difficult to present a consolidated position both internally and externally.

Compliance and Quality Management

The compliance and quality management unit (C&QM) supports the executive board of the MAA in the governance of quality aspects. Similar to a high-performance engine, which depends on a myriad of sensors, control circuits and minute corrections to motion controls for optimal performance, the C&QM unit supports the MAA by ensuring the independent oversight of its processes. In this function, the C&QM analyses process deviations and their root causes, and devises recommendations and corrective measures. The unit assesses process compliance through audits and inspections and issues reports on behalf of the Director MAA. This helps the Director MAA to define performance goals and verify their achievement. The C&QM unit also oversees qualified entities, promotes the integration of control loops into processes and supports the continuous improvement process.

The MAA maintains a corporate and quality policy, within which achievement of the operational requirements of the Swiss Air Force and ensuring the safe use of military air systems are central objectives. The guiding principle for achieving this can be best summarised as – Safety by Quality.

Emblem

Our badge was designed with the following features:

- The name MAA is in English to ensure that it is understood abroad, and is in line with the names of similar authorities in neighbouring countries.
- The emblem contains an outline of Switzerland representing the Confederation, our employer, and the main operational area for Swiss military aviation.
- The Swiss cross symbolizes Swiss military aviation in the main training area, which is located in the centre of Switzerland.
- Crossing arrows represent traffic on civilian transit routes and around military training areas. The points of the arrows evoke two military planes with crossing flightpaths.
- The blue background embodies the Air Force
- The four stars represent:
  - The four neighbouring countries (France – Italy – Germany – Austria); their access to Swiss airspace depends on MAA support
  - Switzerland in the centre of Europe. The shape of the stars is taken from the flag of the European Union.

Impressum

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