

**ICAO Universal Safety Oversight Audit Programme**

**FINAL REPORT  
ON THE SAFETY OVERSIGHT AUDIT  
OF THE  
CIVIL AVIATION SYSTEM  
OF  
SWITZERLAND**

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*(1 to 10 March 2010)*



**International Civil Aviation Organization**

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## ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME

### Final Report on the Safety Oversight Audit of the Civil Aviation System of Switzerland

(1 to 10 March 2010)

## 1. INTRODUCTION

### 1.1 Background

1.1.1 The 32nd Session of the ICAO Assembly (Assembly Resolution A32-11 refers) resolved the establishment of the ICAO Universal Safety Oversight Audit Programme (USOAP), comprising regular, mandatory, systematic and harmonized safety audits of all Contracting States. The mandate for regular audits foresaw the continuation of the Programme, and the term “safety audits” suggested that all safety-related areas should be audited. The expansion of the Programme “at the appropriate time”, as recommended by the 1997 Directors General of Civil Aviation Conference on a Global Strategy for Safety Oversight, had thus been accepted as an integral part of the future of the Programme.

1.1.2 The 35th Session of the ICAO Assembly considered a proposal of the Council for the continuation and expansion of the USOAP as of 2005 and resolved that the Programme be expanded to cover all safety-related Annexes to the *Convention on International Civil Aviation*, hereinafter referred to as the “Chicago Convention” (Assembly Resolution A35-6 refers). The Assembly also requested the Secretary General to adopt a comprehensive systems approach for the conduct of safety oversight audits.

1.1.3 Assembly Resolution A35-6 further directed the Secretary General to ensure that the comprehensive systems approach maintain as core elements the safety provisions contained in Annex 1 — *Personnel Licensing*, Annex 6 — *Operation of Aircraft*, Annex 8 — *Airworthiness of Aircraft*, Annex 11 — *Air Traffic Services*, Annex 13 — *Aircraft Accident and Incident Investigation* and Annex 14 — *Aerodromes*; to make all aspects of the auditing process visible to Contracting States; to make the final safety oversight audit reports available to all Contracting States; and also to provide access to all relevant information derived from the Audit Findings and Differences Database (AFDD) through the secure website of ICAO.

1.1.4 In accordance with Assembly Resolution A35-6, safety oversight audit reports have been restructured to reflect the critical elements of a safety oversight system, as presented in ICAO Doc 9734 — *Safety Oversight Manual*, Part A — *The Establishment and Management of a State’s Safety Oversight System*. ICAO Member States, in their effort to establish and implement an effective safety oversight system, need to consider these critical elements.

### 1.2 ICAO audit team composition

1.2.1 The safety oversight audit team was composed of: Mr. Dhiraj Ramdoyal, team leader, primary aviation legislation (LEG)/civil aviation organization (ORG)/air navigation services (ANS); Mr. Roger Lambo, team member, personnel licensing (PEL)/aircraft operations (OPS); Mr. Henry Gourdji, team member, airworthiness of aircraft (AIR) — design and production; Mr. Thormodur Thormodsson, team member, AIR — maintenance/aircraft accident and incident investigation (AIG); and Mr. Jean-Paul de Villeneuve, team member, aerodromes (AGA).

### 1.3 Acknowledgements

1.3.1 ICAO expresses its sincere appreciation for the assistance provided to the audit team during the preparation and conduct of the audit. The professionalism and enthusiasm of all personnel who interacted with the audit team greatly contributed to the success of the audit mission.

## 2. OBJECTIVES AND ACTIVITIES OF THE AUDIT MISSION

2.1 The comprehensive systems approach for the conduct of safety oversight audits consists of three phases. In the first phase, the level of implementation of Annex provisions is assessed and differences from ICAO Standards and Recommended Practices (SARPs) are identified for each Contracting State through a review of a duly completed State Aviation Activity Questionnaire (SAAQ) and Compliance Checklists (CCs) for all safety-related Annexes, as well as through a review of documents developed by the State to assist it in implementing SARPs and in maintaining an effective safety oversight system. In the second phase, the State being audited is visited by an ICAO audit team to validate the information provided by the State and to conduct an on-site audit of the State's overall capability for safety oversight. The third phase of the audit process consists of the activities following the completion of the on-site audit.

2.2 The safety oversight audit of Switzerland was carried out from 1 to 10 March 2010 in accordance with the standard auditing procedures provided for in ICAO Doc 9735 — *Safety Oversight Audit Manual* and the revised Memorandum of Understanding (MOU) as approved by the ICAO Council on 29 November 2006 (C-DEC 179/12 refers) and agreed to on 2 March 2009 between Switzerland and ICAO. The audit was carried out with the objective of fulfilling the mandate given by the Assembly which requires ICAO to conduct a safety oversight audit of all Contracting States (Assembly Resolutions A32-11 and A35-6 refer), reviewing a State's compliance with ICAO SARPs set out in all safety-related Annexes and their associated guidance material, as well as with related Procedures for Air Navigation Services (PANS). Furthermore, the objective was also to offer advice, as applicable, to Switzerland in implementing these provisions.

2.3 The audit team reviewed the SAAQ and the CCs submitted by Switzerland prior to the on-site audit in order to have a preliminary understanding of the civil aviation system established in the State, to determine its various functions as well as to assess the status of implementation of relevant Annex provisions. Information provided and assessed prior to the conduct of the audit was validated during the on-site audit phase. In this regard, particular attention was given to the presence of an adequate organization, processes, procedures and programmes established and maintained by Switzerland to assist it in fulfilling its safety oversight obligations.

2.4 On 15 July 2002, the European Community adopted *Regulation (EC) No 1592/2002 of the European Parliament and of the Council* on common rules in the field of civil aviation and establishing a European Aviation Safety Agency (EASA). This regulation provides for the transfer of regulatory competencies in the fields of airworthiness, continuing airworthiness and environmental certification from the Member States of the European Union (EU) to EASA.

2.5 Since the transfer of competencies to EASA reflects on the scope of the ICAO safety oversight audits under the comprehensive systems approach, ICAO performed an initial audit of EASA, from 29 November to 2 December 2005. On 20 February 2008, the European Community adopted *Regulation (EC) No 216/2008 of the European Parliament and of the Council*, repealing *Regulation (EC) No 1592/2002 of the*

*European Parliament and of the Council. Regulation (EC) No 216/2008* extends the scope of competence of EASA to pilot licensing, aircraft operations and aircraft used by third-country operators. Taking into consideration the extension of the scope of competence of EASA and additional changes within the organization since the initial safety oversight audit of 2005 by ICAO, ICAO performed a second audit of EASA from 23 to 25 April 2008. The EASA audit results are available to all Contracting States on the ICAO USOAP restricted website (<http://www.icao.int/soa>). It should be noted that Switzerland will always maintain the responsibility for all audit results that are derived from the audits carried out on EASA from time to time. As a result, the latest EASA safety oversight audit report should be reviewed together with this report.

2.6 The audit results, including the findings and recommendations contained in this report, reflect the capabilities and limitations of the civil aviation system of Switzerland as assessed by the audit team. They are thus based on evidence gathered during interviews by the audit team with Switzerland's technical experts and background information provided by such personnel, review and analysis of civil aviation legislation, specific regulations, related documentation and file records. Considering the time that was available to conduct the audit and the fact that the safety oversight audit team members could only review and analyse information and documentation made available by the State, it is possible that some safety concerns may not have been identified during the audit. The findings and recommendations related to each audit area are found in Appendix 1 to this report.

### 3. AUDIT RESULTS

#### 3.1 Critical element 1 — Primary aviation legislation

“The provision of a comprehensive and effective aviation law consistent with the environment and complexity of the State's aviation activity, and compliant with the requirements contained in the *Convention on International Civil Aviation*.”

3.1.1 The primary aviation legislation of Switzerland is the Federal Aviation Act (LCA.SR 748.0), (hereinafter the “Act”), promulgated by the National Assembly in 1948. The Act, which has been updated several times, contains general rules which are the basic laws applicable to civil aviation. The last amendment of the Act came into force on 20 March 2008. Recognizing the integrated character of international civil aviation and desiring that intra-European air transport be harmonized, Switzerland established an Agreement with the European Community on 21 June 1999 (Ref. 0.748.127.192.68) setting out rules for the Contracting Parties in the field of civil aviation. In order to fully harmonize the legal system of Switzerland and the EU, the Agreement contains an Annex with all European Community legislation regarding civil aviation to be fully applicable in Switzerland. To give effect to the Agreement, Article 21 establishes a committee composed of representatives of the Contracting Parties, to be known as the “Community/Switzerland Air Transport Committee” (hereinafter the “Joint Committee”), which shall be responsible for the administration of the Agreement and shall ensure its proper implementation. For this purpose, it shall make recommendations and take decisions in the cases provided for in the Agreement. The decisions of the Joint Committee shall be put into effect by the Contracting Parties in accordance with their own rules. The Joint Committee shall act by mutual agreement. Article 22 of the Agreement further states that a decision of the Joint Committee shall be binding upon the Contracting Parties and shall be published in the Official Journal of the European Communities and the Official Compilation of Swiss Federal Legislation. The Annex of the Agreement also clarifies that wherever acts specified in the Annex contain references to Member States of the European Community, or a requirement for a link with the latter, the references shall, for the purpose of the Agreement, be understood to apply equally to Switzerland.

3.1.1.1 The following applicable EU Regulations, as amended, are included in the Annex to the Agreement:

- a) *Regulation (EC) No. 3922/91* on the harmonization of technical requirements and administrative procedures in the field of civil aviation, as amended by:
  - 1) *Regulation (EC) No 1899/2006 of the European Parliament and of the Council* of 12 December 2006 (referred to as the EU-OPS regulation); and
  - 2) *Regulation (EC) No 8/2008* and *Regulation No 859/2008 of the European Commission*; and
- b) *Regulation (EC) No 1592/2002 of the European Parliament and of the Council* on common rules in the field of civil aviation and establishing a European Aviation Safety Agency.

3.1.1.2 Article 87 of the Federal Constitution, which is the basis of the legislation in Switzerland, considers aviation a federal matter. Consequently, almost all aviation regulations are processed and issued at the federal level. The laws are voted for by the Parliament and their enactments or amendments are rather complex. One of the fundamental principles of the Swiss regulatory system is that no regulation may apply unless it has been published in the Official Compilation of Swiss Federal Legislation in the official languages, which are French, German and Italian. Nevertheless, Article 6a of the Act refers to the Annexes to the Chicago Convention and declares them directly applicable in exceptional cases. Article 6a of the Act also gives the possibility to refrain from their translation into the official Swiss languages and/or from publishing these Annexes in the Swiss Journal of Law.

3.1.1.3 The legal basis for the establishment of the civil aviation organization system in Switzerland emanates from Article 87 of the Federal Constitution (SR 101) and Article 3 of the Act. As stipulated under Article 3 of the Act, within the framework of the mandate of Switzerland, surveillance of civil aviation activities within its territory falls under the responsibility of the Federal Council. It is being implemented by the Department of Environment, Transport, Energy and Communications (DETEC). Article 3 of the Act also provides for the Federal Council to transfer this responsibility to international institutions. In addition, with a view to carrying out immediate surveillance activities, a special division of the DETEC, the Federal Office of Civil Aviation (FOCA), was accordingly established. Article 3a2 of the Act stipulates that the Federal Council may conclude agreements with foreign States or international institutions addressing safety of aviation and air navigation services, including surveillance aspects. In addition, Article 3b authorizes the FOCA, within the framework of its mandate, and in coordination with interested federal authorities, to conclude agreements with foreign aeronautical authorities or international institutions addressing technical collaboration, in particular surveillance of the aviation industry, air navigation services and search and rescue (SAR). In addition, Article 4 of the Act authorizes the FOCA to further delegate specific aspects of its surveillance tasks to other entities, in coordination with the respective governments of the Cantons.

3.1.1.4 Articles 88 to 100 of the Act contain penal, financial and administrative provisions applicable to cases of violations of the Swiss regulations. Article 98 of the Act designates the FOCA as the administrative authority competent to prosecute in case of contraventions according to the procedure established by the Swiss Federal Law. Article 5 of the Act provides for the establishment of an Aviation Commission to provide advice on important matters relating to air navigation. The mandate of the Swiss Civil Aviation Commission on air navigation is stipulated in Ordinance 748.112.3.

3.1.1.5 As adopted within the framework of the Joint Community Decision, the policy, paragraph 8 of *Regulation (EC) No 1592/2002 of the European Parliament and of the Council*, as amended, enables the granting of exemptions “from the requirements of this Regulation and its implementing rules, provided that they are strictly limited in scope and subject to appropriate Community control”. Article 10 (3) of the

regulation stipulates that “Member States may grant exemptions from the substantive requirements laid down in this Regulation and its implementing rules in the event of unforeseen urgent operational circumstances or operational needs of a limited duration, provided the level of safety is not adversely affected thereby. The Agency, the Commission and the other Member States shall be notified of any such exemptions as soon as they become repetitive or where they are granted for periods of more than two months”.

3.1.1.6 As provided for in Article 3 of the Act, surveillance activities are within the purview of the FOCA. Articles 3b2 and 3b2bis of Ordinance 748.131.1, on aeronautical infrastructure, stipulates that all persons acting on behalf of the FOCA to carry out surveillance activities have full-time access to the aeronautical infrastructures. Alternatively, access to the premises has to be given to them. All members of the inspectorate staff of the FOCA have been issued with proper staff credentials.

3.1.1.7 Switzerland ratified Article 83 *bis* of the Chicago Convention which entered into force on 20 June 1997; however, the Swiss civil aviation legislative framework does not clearly allow the transfer and acceptance of State’s responsibilities pertaining to Articles 12, 30, 31 and 32 (a) of the Chicago Convention.

3.1.2 With respect to personnel licensing, Chapter II of the Act governs the licensing of aviation personnel in Switzerland. In accordance with Article 60 of the Act, all flight crew members must, for the exercise of their duties, hold a licence which is subject to periodic renewal. The Federal Council determines which other categories of aviation personnel also require a licence. Article 62 of the Act addresses the acceptance of licences issued by foreign civil aviation authorities, in accordance with the agreements governing international civil aviation, and provides the FOCA the authority to not recognize, for use in Swiss airspace, licences issued to Swiss nationals by a foreign State. Article 63 of the Act provides the Federal Council the authority to issue regulations that address, within limits imposed by international agreements and Swiss legislation, the rights and obligations of aviation personnel.

3.1.3 Concerning aircraft operations, Article 27 of the Act states that companies that transport passengers or cargo in aircraft for commercial ends must hold an operating permit issued by the FOCA. The permit is awarded for a limited period of time and is subject to renewal. Article 16 of the Act provides those entities responsible for surveillance the right to inspect at all times aircraft and their contents, including the verification of all available documents. Although Article 83 *bis* to the Chicago Convention is not explicitly referred to in the Act, Articles 3a and 3b allow the Federal Council and the FOCA to enter into international agreements with foreign States and international organizations on matters involving aviation safety, including surveillance. Under Article 3 of the Act, ordinances have been established addressing in detail specific areas such as exemptions and the safe transport of dangerous goods by air.

3.1.4 With respect to airworthiness of aircraft, the adoption on 15 July 2002 of *Regulation (EC) No 1592/2002 of the European Parliament and of the Council*, recently repealed by *Regulation (EC) No 216/2008 of the European Parliament and of the Council*, paved the way for a centralized EC system of air safety and environment regulations and for the establishment of EASA, which was launched in September 2003. In addition, second title, Chapter One of the Act provides for the registration of aircraft in Switzerland and the need for Swiss-registered aircraft to have a certificate of airworthiness and a valid noise certificate. Article 57 of the Act entitles the DETEC to promulgate detailed regulations in separate ordinances for the design, production and operation of civil aircraft.

3.1.5 With respect to air navigation services, Article 40 of the Act provides for the organization of air navigation services by the Federal Council. It stipulates that the Federal Council may delegate the provision of civilian or military provision of air navigation services, either fully or partly, to another autonomous entity on a non-lucrative basis. In accordance with the Agreement between the Swiss Confederation and the European Community on Air Transport, dated 21 June 1999, the following four Single European Sky (SES)

regulations of the European Parliament and the Council of 10 March 2004 and *Commission Regulation (EC) 2096/2005* laying down common requirements for the provision of air navigation services, referenced in the Annex to the Agreement, are directly applicable in the air navigation fields:

- a) *Regulation (EC) No 549/2004 of the European Parliament and of the Council*, laying down the framework for the creation of the SES;
- b) *Regulation (EC) No 550/2004 of the European Parliament and of the Council* on the provision of air navigation services in the SES;
- c) *Regulation (EC) No 551/2004 of the European Parliament and of the Council* on the organization and use of the airspace in the SES; and
- d) *Regulation (EC) No 552/2004 of the European Parliament and of the Council* on the interoperability of the European air traffic management network.

The Joint Committee has not yet made a decision on compliance with the latest amendments to the EU Regulations.

3.1.5.1 Act No. 429.1 lays down the requirements for the provision of aeronautical meteorological services (MET) in Switzerland. Article 1 d) of this Act stipulates that Switzerland is responsible for the provision of MET. In addition, Article 2 of this Act provides for the Federal Council to assign this responsibility to MeteoSwiss. As regards the provision of SAR services, Article 22 of Act No. 748.0 empowers the FOCA to promulgate operating regulations.

3.1.6 In the area of aerodromes, Chapter III of the Act contains provisions related to infrastructure. Article 36 of the Act stipulates that the Federal Council will lay down the requirements with respect to the construction and operation of aerodromes. Article 36b specifies that aerodrome operators must be granted a concession to operate an aerodrome. Article 36c requests the aerodrome operators to establish a *réglement d'exploitation* (operating regulations) which has to be assessed and approved by the FOCA. Article 37 requires infrastructure and equipment or modification projects to be submitted and accepted by the FOCA. Articles 41 and 42 allow the FOCA to establish restrictions on the placement of obstacles affecting air navigation.

3.1.7 Regarding aircraft accident and incident investigation, the Act establishes the Aircraft Accident Investigation Bureau (AAIB). Furthermore, Ordinance, SR 748.126.3, Investigation of Aircraft Accidents and Serious Incidents, Articles 2 and 3 require that all accidents and serious incidents be investigated. Article 24 of the Act specifies that accident investigations are conducted for the clarification of the circumstances and causes of aircraft accidents and for the prevention of similar accidents.

### 3.2 **Critical element 2 — Specific operating regulations**

“The provision of adequate regulations to address, at a minimum, national requirements emanating from the primary aviation legislation and providing for standardized operational procedures, equipment and infrastructures (including safety management and training systems), in conformance with the Standards and Recommended Practices (SARPs) contained in the Annexes to the *Convention on International Civil Aviation*.

*Note.— The term ‘regulations’ is used in a generic sense to include instructions, rules, edicts, directives, sets of laws, requirements, policies, orders, etc.’*”

3.2.1 Switzerland has established the following mechanisms for the promulgation of implementing regulations:

- a) ordinances promulgated by the Federal Council, the DETEC and the FOCA;
- b) direct applicability of SARPs of the Annexes to the Chicago Convention, including related technical specifications;
- c) direct applicability of mandatory provisions emanating from European Organisation for the Safety of Air Navigation (EUROCONTROL); and
- d) adoption of EU regulations, within the framework of the EU and Swiss Confederation Agreement, through the Joint Committee.

However,

- a) some ordinances do not reflect the latest Annexes to the Chicago Convention;
- b) no clear indication is provided regarding the status of the recommended practices of the Annexes to the Chicago Convention which are directly applicable;
- c) redundancies have been noted with direct applicability of EUROCONTROL mandatory requirements and the Annex to the Decisions of the Joint Committee regarding adopted EU regulations;
- d) procedures with respect to the Agreement between the Swiss Confederation and European Union, for the review and adoption of EU regulations are not being systematically followed; and
- e) procedures which have been developed for the amendment of regulations do not include provisions for ensuring that adopted regulations comply with relevant Annexes to the Chicago Convention initially and on an ongoing basis subsequent to an Annex amendment.

3.2.2  
follows:

The personnel licensing regulations in Switzerland are issued in the form of ordinances as

- a) Ordinance 748.222.1, which was last updated on 19 December 2006, governs the licensing of pilots and other flight crew members that are not currently governed by the Joint Aviation Requirements-Flight Crew Licensing (JAR-FCL). These include provisions that cover flight engineers, glider and balloon pilots, and licences for parachutists;
- b) Ordinance 748.222.2 allows the use of the JARs for the licensing of aeroplane (JAR-FCL 1 (A), Amendment 7) and helicopter pilots (JAR-FCL 2 (H), Amendment 5) and for prescribing the medical requirements to be met for a flight crew licence to be issued and renewed, and the facilities and organization required for the conduct of medical assessments (JAR-FCL 3 Amendment 5). In addition, Ordinance 748.222.5 contains requirements to be met by the civil aviation medical services;
- c) Ordinance 748.222.3 contains requirements for the licensing of air traffic controllers;
- d) Ordinance 748.222.4 provides for the use of JAR-STD (Joint Aviation Requirements — Synthetic Training Devices) for the certification of synthetic flight training devices; and
- e) Ordinance 748.127.2 governs the licensing of aircraft maintenance personnel and also covers the conversion of a national licence to a licence issued under Part 66 of the EU regulations.

In addition to the ordinances, directives and aeronautical information circulars (AICs) are issued by the FOCA for the purpose of addressing licensing and training issues. The validation or conversion of a foreign licence is addressed under Article 25 for licences governed by Ordinance 748.222.3 and under JAR-FCL 1.1015 and 2.015 for aeroplane and helicopter pilots, respectively. Switzerland has fully implemented the language

proficiency requirements contained in Annex 1 to the Chicago Convention, which are addressed in both the national legislation (Article 116 of Ordinance 748.222.1) and JAR-FCL (JAR-FCL 1.200 and 2.200 for aeroplane and helicopter pilots, respectively). Up-to-date copies of all the licensing regulations are available on the FOCA website. The Swiss authorities have not formerly repealed those requirements contained in the ordinances that have been superseded by the JARs, such as the licensing requirements for aeroplane and helicopter pilots or the aviation medicine requirements contained in Ordinances 748.222.1 and 748.222.5, respectively. In addition, in relation to the language proficiency requirements for balloon and glider pilots contained in Annex 1 Recommended Practices, the FOCA has published an AIC recommending their compliance only, instead of itself making a ruling on whether compliance is required in the interest of safety.

3.2.3 With respect to aircraft operations, detailed regulations applicable to commercial civil aviation operations are contained in Ordinance 748.127.1 for all aircraft except aeroplanes, which are covered by EEC 3922/91 (EU-OPS), and helicopters that are used for the commercial transportation of people and goods, which are now covered by JAR-OPS 3, promulgated through Ordinance 748.127.9. Requirements governing rules of the air for aircraft are found in Ordinance 748.121.11 (last amended on 1 November 2008) and requirements governing aeronautical infrastructure, rights of the pilot-in-command and flight time and rest period limitations are found in Ordinances 748.131.1, 748.225.1 and 748.127.8, respectively. However, Switzerland has not yet established regulations applicable to international general aviation operations. The safe transport of dangerous goods by air is regulated under Article 16 of Ordinance 748.411 (last amended on 1 January 2009) and Subpart R of EU-OPS. All regulations addressing commercial aircraft operations are found on the FOCA website. Switzerland has adopted *Commission Regulation (EC) No 859/2008* of 20 August 2008, amending Regulation (EEC) No 3922/91 (EU-OPS) as the regulations governing the certification and surveillance of commercial air transport operations — aeroplane. Subsequently, it has notified ICAO of differences between EU-OPS and the ICAO SARPs, several of which relate to recent amendments to Annex 6, Part I. In certain areas, the FOCA has closed the gap between EU-OPS and the ICAO SARPs by developing regulatory or advisory material that directly refers to Annex 6 to the Chicago Convention.

3.2.4 In the area of airworthiness, Switzerland has established two sets of regulations addressing the different areas of competence as established in *Regulation (EC) No 216/2008* of 20 February 2008. They are:

- a) EC regulations issued by European Community bodies for the certification and continued airworthiness of aircraft which fall under the competence of EASA (hereinafter, “EASA aircraft”); and
- b) Ordinance on Aviation (748.01) supported by many subsequent ordinances, addressing the national requirements for aircraft (including their engines, propellers and equipment) as described or listed in Annex II of the Regulations (EC) No 216/2008 of 20 February 2008 (hereinafter, “Annex II aircraft”).

*Commission Regulation (EC) No 1702/2003* of 24 September 2003 describes the general requirements and procedures for the certification of aircraft and related products, parts and appliances, and of the design and production organizations (Part 21). For the certification of aeronautical products, the basis is laid down by EASA in the form of EASA Certification Specifications (CS), including airworthiness codes outlined in CS-23, CS-25, CS-27 and CS-29. *Commission Regulation (EC) No 2042/2003* of 20 November 2003 addresses the approval of maintenance organizations (Part 145) and continuing airworthiness (Part M). Although significant preparatory work has been carried out for the implementation of a requirement for air operators and approved maintenance organizations (AMOs) to establish safety management systems (SMS) in Switzerland, the European Commission has not promulgated the legislation and means of compliance to address this ICAO Standard which became applicable as of 1 January 2009. In addition, requirements for the observance of human factors principles in the design and application of maintenance programmes and requirements for maintenance control manuals have not been established at the European level.

3.2.4.1 At the national level, the provisions of Annex 7 to the Chicago Convention are addressed in Ordinances 748.01 and 748.216.1. An aircraft imported into Switzerland from another EU Member State is only required to have a certificate of airworthiness based on an EASA type certificate and a valid airworthiness review certificate. All other aircraft must also hold an EASA type certificate and, in addition, an export approval, although the type certificate from the State of Design is used as the basis for importation. The operations-derived equipment requirements of Parts I, II and III of Annex 6 to the Chicago Convention have not been fully addressed by the applicable requirements in Switzerland, including EU-OPS, Air Navigation Order of 2005 and JAR-OPS 3.

3.2.4.2 Ordinance 748.215.1 highlights the detailed requirements for the type certification and continuing airworthiness of non-EASA aircraft, engines and propellers and the requirements for the issuance of airworthiness approvals. Commission Regulations 1702/2003 and 1592/2002 are referred as the requirements to be followed including EASA CS which forms primarily the national code of airworthiness. Federal Aviation Regulations (FARs) 23, 25, 27 and 29 are also referenced in the ordinance as recognized certification standards. Ordinance 748.127.4 lays down the requirements for the approval of maintenance organizations for non-EASA aircraft. The standards on environmental noise for Annex II aircraft, in conformance with Annex 16, Volume I to the Chicago Convention, are addressed by Ordinance 748.215.3 on aircraft emissions.

3.2.5 *Commission Regulation (EC) No 1315/2007* of 8 November 2007 on safety oversight in air traffic management establishes a safety oversight function concerning air navigation services. Article 3 of Ordinance 748.132.1 on air navigation services stipulates that the SARPs of the Annexes to the Chicago Convention, including applicable technical specifications, and the mandatory requirements by EUROCONTROL shall be directly applicable for the implementation of air navigation services. In addition, it includes tasks which have been assigned to Skyguide, which is the main air navigation services provider. Ordinance 748.132.13 addresses the provision of MET and Ordinances 748.126.1 and 748.126.11 address the provision of SAR services.

3.2.6 With respect to aerodromes, Ordinance 748.131.1 dated 23 November 1994 (last amended on 15 March 2008) establishes the requirements for the construction, operation and management of aerodromes. It also contains all requirements for landings and obstacle clearances. Article 3.1bis of the Ordinance specifies that the SARPs of Annex 14 to the Chicago Convention, including the related technical specifications, are directly applicable to aerodromes, obstacles, ground topography and air navigation equipment and construction; however, a clear policy has not been defined as regards the applicability of Annex 14 Recommended Practices. Article 74b of the Ordinance specifies the requirement for a first set of two national airports (Geneva and Zurich) and four major regional airports (Bern, Lugano, Saint Gallen Altenrhein and Sion) to be certified before 31 December 2009, and for the remaining regional airports to be certified before 31 December 2012. Operating restrictions and/or sanctions may be imposed by the FOCA through Article 3b of the Ordinance, which establishes that the FOCA shall take the necessary actions to ensure compliance with the requirements.

3.2.7 As far as accident and incident investigation is concerned, the applicable regulatory provisions are found in Ordinance SR 748.126.3. Article 10 of the Ordinance requires accidents and serious incidents to be immediately notified to the AAIB in accordance with published guidelines. Article 14 of the Ordinance states that the investigator-in charge will decide who has access to the accident site. Article 15 of the Ordinance establishes that investigations shall be conducted in accordance with ICAO provisions and guidance material. However, the regulations do not contain specific requirements for the investigation authority to have unhampered access to and control over the wreckage and control over all relevant evidence, including the right to carry out a detailed examination without delay. Furthermore, the Ordinance contains a general provision for the participation of representatives from foreign States in investigations conducted by the AAIB; however, the

regulations do not contain specific provisions providing for the participation of accredited representatives of all States concerned in the investigations. In addition, provisions that guarantee that cockpit voice recorders (CVR), CVR transcripts and all other investigation records listed in Annex 13 to the Chicago Convention are protected from disclosure have not been established. With respect to the reporting of aircraft incidents in civil aviation, the Annex to the Agreement between the European Community and the Swiss Confederation indicates that Directive No 2003/42 of the European Parliament and the Council on occurrence reporting in civil aviation is applicable.

### 3.3 **Critical element 3 — State civil aviation system and safety oversight functions**

“The establishment of a civil aviation authority (CAA) and/or other relevant authorities or government agencies, headed by a Chief Executive Officer, supported by the appropriate and adequate technical and non-technical staff and provided with adequate financial resources. The State authority must have stated safety regulatory functions, objectives and safety policies.

*Note.— The term ‘State civil aviation system’ is used in a generic sense to include all aviation-related authorities with aviation safety oversight responsibility which may be established by the State as separate entities, such as: CAA, airport authorities, air traffic service authorities, accident investigation authority, meteorological authority, etc.”*

3.3.1 As provided for under Article 3 of the Act, the surveillance activities in the field of aviation on the entire territory of Switzerland falls under the competence of the Federal Council and are being implemented by the DETEC. The FOCA is a special division of the DETEC which was established with a view to carrying out immediate surveillance. It is responsible for aviation development and the supervision of civil aviation activities in Switzerland; ensuring that the high-safety standards in civil aviation in Switzerland are maintained; and pursuing a policy of sustainable development. The distribution of tasks and responsibilities within the FOCA is divided among five divisions and is clearly identified in the FOCA management system. Article 3 of the Act also provides for the Federal Council to transfer this responsibility to international institutions. This power was created in particular to permit the participation of Switzerland in EASA (see also Chapters 3.1.3.2.4 and 3.3.4). Article 4 of the Act provides for the FOCA to delegate some of its surveillance tasks to other entities. The FOCA has been certified in accordance with ISO 9001 and currently employs around 250 staff. Ordinance 172.217.1, as amended, establishes the responsibilities of the DETEC and the FOCA. The organizational structure of the FOCA indicates that it is comprised of a Board (*Amtsleitung*) whose Chairman is the Director General. However, no legal basis is available with respect to the Board of the FOCA, its composition and mandate. In addition to the FOCA, under the DETEC there are two other entities, namely, the Civil Aviation Safety Office (CASO) and the AAIB. The CASO is independent from the FOCA as well as the AAIB and reports directly to the Secretariat of the DETEC. The mandate of the CASO includes the provision of expertise in aviation at departmental level and oversight in aviation safety matters on the FOCA from a departmental perspective, including policy decisions on national and international safety recommendations. The FOCA is headed by a Director General and its organizational setup is as follows:

- a) Corporate Services Unit;
- b) Communications Unit;
- c) Safety Risk Management Unit;
- d) Aviation Policy and Strategy Division;
- e) Safety Division — Aircraft;
- f) Safety Division — Flight Operations;
- g) Safety Division — Infrastructure; and
- h) Resources and Logistics Division.

The FOCA has published a “Safety Policy Statement” and the basic requirements for addressing the principles defining the foundation and the management of safety in Switzerland. It contains high-level safety objectives, a strategy for achieving those objectives and specific actions in support of the strategy.

3.3.1.1 The Safety Risk Management Unit of the FOCA is responsible for all aspects of safety risk management and reports directly to the Director General. It supports and advises the latter in the coordination and control of all safety-related aspects of the activities of the FOCA. Its numerous duties include the recording and analysis of occurrences of relevance to safety and the passing on recommendations to the FOCA management board and/or divisions. It also maintains and constantly updates a risk database and coordinates risk assessment in all areas (aircraft, flight operations and infrastructure). Furthermore, it functions as a coordination office for contacts with the Federal AAIB and the aviation safety officer of the DETEC.

3.3.1.2 Under the the Aviation Policy and Strategy Division there are five sections: Standardization and Policy; Sectorial Plan and Aviation Facilities; Environmental Affairs; Legal and International Affairs; and Economic Affairs. The Division is not involved in the surveillance activities of the FOCA, and its responsibilities include, among others, the development of draft amendments to the legislative provisions. In addition, the Airspace Section of the Safety Division — Infrastructure is also involved, among other things, in the development of regulations to support the air navigation system.

3.3.2 With respect to personnel licensing, within the Safety Division — Flight Operations, the Flight Personnel Section carries out all flight crew licensing activities, to include the processing of documents for the issuance of licences and ratings and the validation and conversion of foreign licences. The Flight Personnel Section conducts all theory and practical tests for the issuance of licences and ratings, and supervises the appointment and activities of designated examiners. It also maintains all the licensing records, which are now kept in electronic format. The Aeromedical Section, which works in close cooperation with the Flight Personnel Section and supervises the Aeromedical Centre, is responsible for the oversight of the medical assessments of both flight crew and air traffic controllers as well as for the certification, organization and supervision of training of the medical examiners that have been designated to carry out medical assessments. The Certification and Flight Operations Section is responsible for the approval of flight training organizations and for the approval and supervision of designated ground school and flight examiners for fixed-wing multi-pilot type rating training programmes. The Helicopter Flight Operations Section is responsible for the oversight of centres for the training of helicopter pilots. The licensing of aircraft maintenance engineers is conducted by the Maintenance Organizations and Personnel Section of the Safety Division — Aircraft. The Section is responsible for the issuance of licences to all maintenance personnel and supervises the aircraft maintenance training centres. All matters relating to the licensing of air traffic controllers are handled by the Air Navigation Services Section of the Safety Division — Infrastructure. The Flight Personnel Section is manned by a total of fourteen technical staff, which includes the Head of the Section, who also acts as a flight operations inspector for single-pilot fixed-wing operations. The Section also employs two additional inspectors, one of whom is responsible for the oversight of single-pilot helicopter operations. The existing technical staff in the Safety Division-Flight Operations is sufficient for the current level of activities. All staff have been provided with detailed job descriptions and with the required delegation of authority and credentials to carry out their duties.

3.3.3 In the area of aircraft operations, the certification and surveillance of commercial air transport operators and flight training centres is the responsibility of the Safety Division — Flight Operations. Within the Division, the certification of aeroplane operators is the responsibility of the Certification of Flight Operations Section, and surveillance is carried out by the Surveillance of Flight Operations Section. The certification and surveillance of commercial helicopter operations and training establishments for helicopter pilots is carried out by the Helicopter Flight Operations Section. The Standardization and Enforcement Section of the Division is

responsible for ensuring that international requirements are properly integrated into the Swiss legislation and implemented. It is also responsible for all flight operations matters related to enforcement and to the safe transport of dangerous goods by air. Both the Certification Flight Operations and the Surveillance Flight Operations are located at Zurich International Airport. With respect to air operator certificate (AOC) approvals, the Certification of Flight Operations Section carries out its activities in line with the five stages of certification, which include the review of the application forms and documents submitted by prospective operators and the conduct of inspections and observation of safety of the demonstrations made by the operator; in short, all the activities that eventually lead to the issuance of the AOC and the operations specifications. In addition, the Section carries out inspections in support of the certification of flight training establishments and flight simulators. Activities of the Surveillance Flight Operations Section include oversight of the operations of both commercial and non-commercial operators and training establishments, to include the conduct of inspections of the safety assessments of foreign aircraft. All operations inspectors, including those inspectors responsible for the management of their respective sections, are allowed to devote 20 to 25 per cent of their time to operational flying duties with commercial operators, in order to maintain satisfactory levels of proficiency. Contracts have been established with individual air operators concerned, and inspectors are not allowed to fly for air operators for which they are directly responsible for oversight. However, management/supervisory staff within the Safety Division — Flight Operations have broad responsibilities for the oversight of Swiss commercial air transport operators as a whole and for the development of a policy in that regard, which may be perceived as a potential conflict of interest. With its current complement of inspectors, the Safety Division — Flight Operations is able to carry out its certification and surveillance functions.

3.3.3.1 With respect to the safe transport of dangerous goods by air, the FOCA has only one full-time inspector and one part-time inspector for carrying out surveillance over an area of activity that includes 500 shippers, 140 freight forwarders, eight handling agents and 34 operators (of which eight are approved). As a consequence, surveillance activities in 2009 and those projected for 2010 cover only a very limited number of entities (air operators, shippers, handling agents, etc.) involved in the safe transport of dangerous goods by air.

3.3.4 With respect to airworthiness, related tasks are carried out by the FOCA or EASA, depending on the area of competence. The tasks transferred to EASA as of 1 December 2006 in accordance with the EU and Switzerland Air Services Agreement for Annex 1 products include type certification and approval of design organizations, as well as the approval of manufacturing and maintenance organizations outside the EC, and the issuance of airworthiness directives. Pursuant to Article 66 of *Regulation (EC) No 216/2008* of 20 February 2008, EASA and Switzerland have signed a framework service contract establishing the conditions under which the FOCA will assist EASA in the execution of certain tasks in the field of certification and standardization inspections. The FOCA has also been delegated the task of performing technical airworthiness inspections for the continuing airworthiness of products for which Switzerland is the leading authority. The FOCA is still responsible for the approval and supervision of manufacturing and maintenance organizations in Switzerland and for compliance with the State's responsibilities as the State of Registry. The Safety Division — Aircraft of the FOCA is composed of:

- a) the Standardisation, Enforcement and Register Section;
- b) the Design and Production Section;
- c) the Maintenance Organization Personnel Section;
- d) the Airworthiness Section; and
- e) the Continuing Airworthiness Management Organization Section.

The Standardisation, Enforcement and Register Section is in charge of keeping the aircraft register and issuing the certificates of registration. For activities or for type of aircraft (Annex II aircraft) for which competencies have not been transferred to EASA, the related tasks (i.e. type certification, modification approvals, as well as design, manufacturing and production approvals and the issuance airworthiness directives) are conducted by

the Design and Production Section. Activities related to approval and supervision of maintenance operations and training centres for maintenance personnel are carried out by the Maintenance Organizations and Personnel Section. It supervises examinations and issues the necessary licences for the performance of maintenance tasks based on national and international standards.

3.3.4.1 The Airworthiness Section is responsible for ensuring that aircraft registered in Switzerland meet the relevant legal provisions and requirements. It supervises the condition of aircraft belonging to commercial and non-commercial operators. The supervision of privately owned aircraft with a maximum take-off mass of less than 5 700 Kg or single engine helicopters (mainly general aviation aircraft) has been delegated to individuals. The Airworthiness Section, as the higher supervisor authority, monitors on a continuous basis the aforementioned activities and capacity of the contracted individuals. Activities related to the approval and supervision of airworthiness operations are conducted by the Continuing Airworthiness Management Organization Section. Airworthiness management, i.e. the organization of aircraft maintenance, is one of the main activities monitored by the Section and the essential requirement for awarding operating licences to commercial companies. All airworthiness activities are managed centrally from the FOCA offices in Bern with some airworthiness inspectors located in the vicinity of Zurich airport. The certificates of airworthiness are issued by the Airworthiness Section based on the EASA-type certification. The noise certificates based on Annex 16, Volume I, are issued by the Environmental Affairs Section. The certificates of airworthiness are issued without an expiration date and are only valid in conjunction with valid airworthiness review certificates, which basically are renewed or extended every year. Certificates of airworthiness for non-EASA aircraft are issued without an expiration date, but may be time limited exceptionally.

3.3.5 With respect to air navigation services, Switzerland is a landlocked country surrounded by five countries: Austria, France, Germany, Italy and Liechtenstein. Along the Swiss border, some parts of the airspace have been delegated to foreign-service providers. France's Air Navigation Service Provider (ANSP), the DSNA, provides services in a portion of Swiss airspace, while Skyguide, the main Swiss ANSP, provides services in a portion of French airspace. Some airspace has been delegated to/from Italy, and Germany has also delegated some airspace to Skyguide for the provision of services. In addition to Skyguide, other entities involved in the provision of services are Engadin Airport for the provision of aerodrome flight information service (AFIS), MeteoSwiss for the provision of MET and EUROCONTROL for the provision of flight data processing system and Central Flow Management Unit (CFMU) services. The Geneva and Zurich area control centres handle about 3 000 movements per day (over-flights, landings and departures) within the Switzerland Flight Information Region (FIR). The Swiss Air Force is the regulator for military affairs and is part of the Federal Department of Defence, Civil Protection and Sports. As required by Article 2 of the Ordinance on air navigation services, the Air Force is co-partner with the FOCA for airspace management.

3.3.5.1 The Safety Division — Infrastructure of the FOCA has five Sections: Standardization and Enforcement; Aerodrome and Air Navigation Obstacles (SIAP); Security; Air Navigation Services (SIFS); and Airspace. The SIFS is responsible for the certification and oversight of all air navigation services providers, i.e. air traffic management, aeronautical information service (AIS), aeronautical charts, communications, navigation and surveillance, Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS), MET and SAR. The SIFS has a pool of ten officers, trained in multidisciplinary fields, to carry out surveillance and audit activities of the service providers. However, taking into account the level of activities in Switzerland, the Section does not have a sufficient number of qualified subject matter experts to fully address the scope of activities in the areas of PANS-OPS, cartography and MET.

3.3.5.2 The Federal Office of Meteorology and Climatology (MeteoSwiss) is the meteorological authority for the provision of MET for civil aviation in Switzerland, under the supervision of the SIFS. The MET Department of MeteoSwiss (*Flugwetterzentrale*) at Zurich Airport is the designated meteorological watch office for Switzerland flight information region/upper flight information region.

3.3.5.3 The oversight of SAR is the responsibility of the SIFS. The execution of SAR is delegated to the Swiss Air Rescue (REGA) rescue coordination centre (RCC), which is an independent, non-profit organization which carries out all types of rescue activities in Switzerland, and the Swiss Air Force for search operations.

3.3.6 In the area of aerodromes, the SIAP of the Safety Division — Infrastructure is in charge of the surveillance of obstacles to air navigation and the certification and continuing surveillance of the national and regional airports. The SIAP also provides the Sectorial Plan and Aviation Facilities Section of the Aviation Policy and Strategy Division with technical advice on the projects of new infrastructure, facilities and equipments related the aerodrome and on their modifications. This includes the assessment of the compliance with the provisions of Annex 14 to the Chicago Convention. The SIAP is sufficiently staffed by trained and experienced inspectors.

3.3.7 With respect to aircraft accident and incident investigation, Ordinance SR 748.126.3 provides for the organizational structure of the AAIB. The AAIB headquarters are located at Payerne Airport. There are no regional offices. The AAIB is staffed by five full-time aircraft investigators, for whom detailed job descriptions have been established. In addition, the board may, on an ad hoc basis, request technical expertise from outside sources to provide assistance during investigations. The investigators and experts have a wide variety of backgrounds, including pilots, engineers, air traffic controllers, flight recorder experts and survival factors experts. The AAIB has its own Internet website ([www.bfu.admin.ch](http://www.bfu.admin.ch)) and also an Intranet. The AAIB is funded by the State to conduct its investigation functions. The founding is provided for in the Act.

#### 3.4 **Critical element 4 — Technical personnel qualification and training**

“The establishment of minimum requirements for knowledge and experience of the technical personnel performing safety oversight functions and the provision of appropriate training to maintain and enhance their competence at the desired level. The training should include initial and recurrent (periodic) training.”

3.4.1 The FOCA has established qualification and experience requirements for the recruitment of technical staff. In addition, it has developed a training policy to be followed by all technical staff in each of the Safety Divisions. The training policy and guidelines are established in a document entitled “Concept of Personnel Development” which was approved by the Board of the FOCA and last revised in June 2009. The policy and guidelines require training and individual development planning to be agreed upon between each technical expert and their supervisor annually, including their performance objective. Each Safety Division requires its technical staff to receive, at the minimum, initial and recurrent training, including on-the-job training (OJT), to achieve the required level of qualification in accordance with the duties and responsibilities assigned to the specific function. The implementation of the training programme is monitored and recorded through a computerized system, and records are equally kept in individual training files. However, in the area of airworthiness, the training plan is not comprehensive and some training records are not entered into the system.

3.4.2 In the area of air navigation services, the Air Navigation Services Section of the Safety Division — Infrastructure has established functions and responsibilities, job descriptions, and minimum qualifications and experience requirements for its air navigation services inspectorate; however, the qualifications requirements are of generic nature and do not fully address the specific requirements in the areas of AIS, cartography and MET.

3.4.3 With respect to accident and incident investigation, the AAIB has established minimum qualification requirements for the recruitment of investigators. A formal training programme has been established providing the details of the items to be covered during the initial training, OJT and recurrent and specialized training. Furthermore the AAIB develops periodic training plans and keeps detailed records of all the training received by its investigators.

3.5 **Critical element 5 — Technical guidance, tools and the provision of safety critical information**

“The provision of technical guidance (including processes and procedures), tools (including facilities and equipment) and safety critical information, as applicable, to the technical personnel to enable them to perform their safety oversight functions in accordance with established requirements and in a standardized manner. In addition, this includes the provision of technical guidance by the oversight authority to the aviation industry on the implementation of applicable regulations and instructions.”

3.5.1 The FOCA management system establishes a structured framework for each FOCA Division and Unit to identify its procedures, work processes and instructions. It facilitates the transparency and standardization of all FOCA internal activities and methods in describing work-flow processes. Access to the system is provided to all FOCA personnel through its Intranet. The FOCA has a main central library which contains all relevant ICAO documents and guidance material, including an amendment service. All documents are regularly updated. In addition, there is an electronic library made available to all concerned staff through the Intranet. Furthermore, all regulations are also posted on the FOCA website ([www.bazl.admin.ch](http://www.bazl.admin.ch)).

3.5.2 In the area of personnel licensing, the processing of all applications for licences and ratings is fully computerized, and the system fully integrates all certification and surveillance activities of the FOCA, enabling the uploading of all application forms and the electronic cross-checking of all criteria required for the evaluation of candidates (including the results of theoretical and practical tests and medical assessments) and leading to the issuance of licences and ratings. It also enables the maintenance of all records in electronic format. All personnel licensing records, including the aeromedical records, are kept in a secure and confidential manner.

3.5.3 With respect to aircraft operations, the FOCA has developed procedures for the conduct of all its activities relating to the certification and surveillance of air operators and training organizations. Procedures are documented and made available to all the inspectors.

3.5.4 With respect to airworthiness, the Safety Division — Aircraft has developed comprehensive procedures, forms and checklists for the approvals for which it is responsible for both EASA-type aircraft and Annex II aircraft, as required using the FOCA management system, which is in line with ISO 9000-2001 principles. Each airworthiness activity is clearly identified with a process flow chart listing all tasks, tools and work processes (instructions) required to accomplish the activity, which are available on the FOCA Intranet. They include: certificates of registration; noise certificates; approvals of modifications and repairs; certificates of airworthiness; special flight permits; continuing airworthiness maintenance organization (CAMO) approvals; maintenance programme approvals; minimum equipment list approvals; reduced vertical separation minimum approval; approvals of aircraft leasing agreements; maintenance organization approvals; type certificates; amended/supplemental type certificates; design organization approvals; and production organization approvals. Handbooks for project certification, Part 21 organization approvals and design organization approvals detailing working procedures have been developed and are integrated into the FOCA management system.

3.5.4.1 Several tools are available to support the technical and professional staff of the Safety Division — Airworthiness in their day-to-day tasks. An in-house central library is managed by the Resource and Logistics Division. In addition, each member of the Design and Production Section has access to several on-line libraries such as the ICAO-NET; the Information Handling Service; national authorities regulatory and guidance library published on the Internet; on-line archives such as the EASA Communication and Information Resource Centre Administrator; and the web communication platform Scientific Information for Policy Support in Europe. A certification toolbox, comprising of a collection of regulatory, certification and safety information is also available through the FOCA Intranet site. Airworthiness directives can be found on both the FOCA and EASA websites.

3.5.5 In the area of air navigation services, Safety Oversight in ANS Provision (SOAP) Directive ANS 2007-01 explains the process for safety oversight and the “SOAP GUP” dated 25 February 2010 provides further guidance to the inspectorate staff to enable them to carry out their duties in an effective and efficient manner. The Aeronautical Information Publication of Switzerland is in accordance with the Integrated Aeronautical Information Package and is being regularly updated.

3.5.6 Concerning aerodromes, Process HE 62-01 on “Certification of Aerodromes” describes the certification process through a flow chart including, at each step, documents to study, tasks to be performed, responsibilities and corresponding documents to produce. Certification procedures have been progressively defined in the Certification of Aerodromes (COFA) Working Group, in which representatives of the SIAP Section and the concerned aerodromes participate. This also enables the provision of guidance to aerodrome operators through working papers, common brainstorming, sharing of experience and responding to queries, and meeting reports. Detailed checklists have been developed for a few technical aspects: aerodrome manual review, SMS assessment, rescue and fire fighting (RFF), lighting and visual aids in flight check and fuelling activities. However, appropriate checklists and/or guidance material have not been developed for all technical areas. To perform the interviews during on-site audits, SIAP aerodrome inspectors use a standardized list of questions that cover most of the topics concerning aerodrome operator organization, procedures and SMS as guidance material.

3.5.7 With respect to aircraft accident and incident investigation, the AAIB has adequate facilities and provides its investigators with appropriate equipment and tools for their tasks. An AAIB manual, which is fully controlled, has been established in 2008. This manual provides the AAIB investigators with guidelines and procedures for them to accomplish the various tasks related to the notification, investigation and reporting of accidents and incidents. The manual contains detailed procedures for the investigation of various types of accidents. Final reports are issued in compliance with the provisions of Annex 13 to the Chicago Convention, and their format and contents depend on the type of occurrence.

### 3.6 **Critical element 6 — Licensing, certification, authorization and/or approval obligations**

“The implementation of processes and procedures to ensure that personnel and organizations performing an aviation activity meet the established requirements before they are allowed to exercise the privileges of a licence, certificate, authorization and/or approval to conduct the relevant aviation activity.”

3.6.1 With respect to personnel licensing, all ICAO flight crew licences, with the exception of the flight navigator licence, are issued by the FOCA. All aeroplane and helicopter licences are issued under JAR-FCL 1 and 2 respectively, while glider and balloon licences are issued under the national regulations. Checklists and application forms that cover the issuance of all licences and ratings, including the aeroplane and helicopter licences under JAR-FCL, and foreign licence validation or certification are readily available on the

FOCA's website. Application forms typically provide for the provision of the identity of the applicant, age, detailed flight experience and theoretical examination results. They also request proof of language proficiency (at least up to Level 4) and an official print out of criminal record. The checklist provided by the FOCA identifies all the details on the information and supporting documents, including the results of knowledge and skill test, which must be provided by the applicant. All this information is introduced in the EMPIC database where it is processed. Ultimately, if the applicant is successful, the EMPIC system prints out a licence with the signature of the Head of the Flight Personnel Section. The FOCA conducts knowledge tests for the commercial pilot licence, the instrument rating and the airline transport pilot licence at its own facility, and publishes the dates of examinations in an AIC. Examinations for the private-pilot licence and balloon and glider licences have been delegated to external examiners. With respect to knowledge or theoretical examinations, the FOCA uses its own questionnaires for national licences and its questions are changed every two to three years in accordance with Policy Directive 14 issued by the FOCA Board of Directors. Questions for the professional licences are drawn from a question bank that was previously managed by the Joint Aviation Authorities. The FOCA has established a system for the systematic verification of the validity of a foreign licence to be validated or converted. The FOCA publishes the list of 69 suitably qualified designated medical examiners on its website. Also available on the website are all the national and JAR-FCL 3 requirements for the designation of medical examiners and requirements for the conduct of medical assessments. Medical examiners are first designated for a period of two years during which they are only allowed to conduct Category B medical examinations of holders of the private pilot licence and holders of glider and balloon licences. After two years, and upon taking an advanced training course, they may conduct Category A tests for the initial assessment of candidates for professional pilot and air traffic controller licences.

3.6.2 The certification of air operators is carried out in five certification stages, which include: pre-application; formal application; document review; inspections and demonstration; and issuance of the AOC. All five stages are provided for under the management system with checklists and guidance for inspectors. The certification process includes close cooperation between the Safety Division — Flight Operations and the Safety Division — Aircraft with respect to the airworthiness aspects of the AOC, and with the Aviation Policy and Strategy Division in relation to the financial status of AOC applicants. The operations manuals reviewed by the audit team are in compliance with Part I of Annex 6 to the Chicago Convention with respect to both their structure and contents. Switzerland has filed a difference to the formats of the AOC of the Operations Specifications in Appendix 3 of Annex 6, Part I. In addition, Switzerland has not promulgated a regulation requiring a certified true copy of the AOC and corresponding operations specifications, including leased aircraft, to be carried on board at all times. Furthermore, it has not developed a regulation that a certified true copy of the transfer agreement of the supervisory functions and duties pursuant to Article 83 *bis* of the Chicago Convention is also carried on board the aircraft at all times. Current practice introduced by the FOCA requires an AOC extract that indicates that the copy of the AOC on board the aircraft is a true copy. The extract contains the original signature of the FOCA Head Certification Flight Operations and refers to the governing EU-OPS regulation 1.125 that calls for an original or copy of the AOC to be carried on board the aircraft. The regulation does not call for a certified true copy of the AOC.

3.6.3 With respect to airworthiness, the Safety Division — Aircraft issues all relevant certificates including the certificate of airworthiness and documents attesting to noise certification. Within the Division, the Continuing Airworthiness Management Organization Section carries out the initial certification and surveillance of CAMOs, and of those CAMOs with the I-privilege (the I-privilege is a precondition to issue airworthiness review certificates). The Maintenance Organization Personnel Section carries out the initial certification and surveillance of AMOs, and the Airworthiness Section is responsible for the certificates of airworthiness including the issuance of the airworthiness review certificates. The noise certificates based on Annex 16, Volume I, are issued by the Environmental Affairs Section. Design and production activities, which are the basis for the provision of services to EASA by the FOCA, are detailed in a framework service contract, which contains the list of allocated products on which the FOCA can conduct certification tasks (Annex II).

There are 12 Part-21, Subpart G, Production Organization Approvals that have been granted by the FOCA. The approvals were issued following the Part-21 Production Organization Handbook with detailed records of approvals available. The FOCA has not issued any approvals under Part 21, Subpart F, “Production without Production Organization Approval” although comprehensive procedures are in place. Design organization approvals are issued by EASA, and the FOCA conducts some of the certification activities including surveillance audits to support the approval. Type certification projects (including the issuance of an initial type certificate, validation, amendment of type certificates and supplemental type certificates for Annex II aircraft) are managed by the Design and Manufacturing Section. Once all certification requirements have been met, a type certificate with accompanying type certificate data sheet is issued. With respect to the issuance of a certificate of airworthiness for the “first of a type”, the Design and Production Section will perform a review of selected parts of the aircraft design (compliance summary, airworthiness directive and service bulletin history) followed by a conformity inspection conducted by the Airworthiness Section.

3.6.4 The FOCA, which is also the National Supervisory Authority (NSA) for Switzerland in the area of air navigation services, has certified the following service providers:

- a) Skyguide, the main ANSP (ISO-19011 certified);
- b) MeteoSwiss (ISO-19011 certified);
- c) the AFIS provider at Engadin Airport;
- d) Skyguide Training Centre (air traffic control and safety-related tasks); and
- e) Skywatch, the training centre for AFIS.

All navigation aids are regularly calibrated in accordance with the flight calibration guidelines. Skyguide, the ANS service provider, has developed an SMS which includes a safety policy, safety achievements, safety assurance and safety promotion, in compliance with EUROCONTROL Safety Regulatory Requirement (ESARR) 3 and other pertinent provisions of ESARRs 2, 4, 5 and 6. The Safety Department of Skyguide is also preparing a strategic safety plan in order to give a more solid structure to Skyguide’s SMS and to coordinate safety activities. The process is being implemented in an evolutionary manner.

3.6.5 The aerodrome certification process covers the organization, procedures and the SMS of the aerodrome operator. However, it does not include the assessment of aerodrome physical characteristics, facilities and equipment. These aspects are only assessed through the review of the corresponding projects, and the results are not necessarily considered and are not updated during the certification process. The certification process starts with a documentary review of the aerodrome manual and attached documents (procedures and internal guidance) submitted by the applicant, of events recorded in the mandatory reporting systems, and of recent projects files. Subsequently, several on-site audits are performed and a report that summarizes the results and findings of the documentary review and of the on-site audits is prepared. The applicant shall then submit an action plan describing corrective actions and implementation timelines. Follow-up audits may be performed to assess the progress of the implementation of the action plan before the issuance of the certificate to the aerodrome operator. An aerodrome certificate is issued with a validity of five years and is not allowed to be transferred. Heliports are not certified, as they do not have international traffic. When new regulations are to be enforced, the FOCA representatives present to the COFA Working Group members the new requirement and the manner in which it should be implemented. In addition, the FOCA establishes a time limit for the aerodrome operators to provide the FOCA with an assessment of the situation of their aerodromes and submit an action plan to fulfil the requirements. The FOCA has certified the two national airports and two regional airports. The certification of Lugano and Sion aerodrome operators is still in progress as well as the certification of the remaining seven regional aerodromes.

### 3.7 Critical element 7 — Surveillance obligations

“The implementation of processes, such as inspections and audits, to proactively ensure that aviation licence, certificate, authorization and/or approval holders continue to meet the established requirements and function at the level of competency and safety required by the State to undertake an aviation-related activity for which they have been licensed, certified, authorized and/or approved to perform. This includes the surveillance of designated personnel who perform safety oversight functions on behalf of the CAA.”

3.7.1 With respect to personnel licensing, surveillance relating to the issuance and renewal of licences and ratings and other activities, such as the validation and conversion of foreign licences, is exercised through the EMPIC system, in which details on licence applicants, the conduct of tests, training centres and designated personnel, including designated medical examiners, are kept. In addition, all instructors and examiners are required to meet recurrent and refresher training requirements. Regular and ad hoc inspection and audits are conducted on training personnel and organizations, medical centres and designated examiners, in accordance with the requirements of Switzerland and JAR-FCL 3.

3.7.2 In the area of aircraft operations, the FOCA has established a robust system for the conduct of surveillance over commercial and non-commercial aircraft operators and training organizations that contains a comprehensive plan and programme of routine and ad hoc inspections and audits. A review of individual air operator files indicated that the FOCA inspectors follow procedures for carrying out the surveillance duties. Inspections for the purpose of conducting surveillance over arrangements that air operators have put in place for ground handling is conducted by a United Kingdom company on behalf of the FOCA.

3.7.3 With respect to the airworthiness and design and production activities, surveillance audits are performed in accordance with EASA procedures and frequencies. All AMOs and production organizations (POAs) receive planned and random inspections to ensure that all elements of the organization are audited at least once in a two-year cycle. The results of the inspections and the tracking of the identified deficiencies are obtained using the EMPIC management system. Maintenance activities of air operators are also audited covering all required elements in a two-year cycle. Similarly, the FOCA performs the surveillance audit tasks for its design organizations (DOAs) in a three-year cycle to audit all elements of the organization. However, the system used for the planning of surveillance audits and the monitoring of deficiencies is paper based and does not provide adequate traceability to ensure that all activities of a DOA are audited within a three-year cycle and that the deficiencies identified are resolved within the prescribed time frame.

3.7.4 Concerning air navigation services, surveillance activities are being regularly conducted in accordance with FOCA Directive ANS 2007-1 in compliance with ESARR 1 requirements, including the respective guidance provided in documents EAM1/GUI/3 and *Commission Regulation (EC) No 1315/2007*, as amended, and *Commission Regulation (EC) No 2096/2005*. The activities consist on initial surveillance and reassessment audits to ensure compliance with the above-mentioned directives and regulations. In addition, inspections are conducted twice a month to cover the scope on air navigation services activities. However, surveillance activities in the area of PANS-OPS are limited to desktop audits only, and audit activities in the fields of cartography and MET are of limited scope. In addition, the agreement with respect to oversight activities by the respective NSAs, in airspace over Germany to which Switzerland has taken responsibility for the provision of air traffic services, and those portions of delegated airspaces with Italy have not been finalized. Furthermore, no arrangements have been made for the oversight of services provided by EUROCONTROL, regarding the Integrated Initial Flight Plan Processing System and the Central Flow Management Unit (CFMU).

3.7.5 In the area of aerodromes, surveillance activities are performed by the SIAP for certified aerodromes, mostly following a risk-based analysis to determine the need for an inspection. The frequency of surveillance actions has been established for re-certification, review of the aerodrome manual, obstacles survey and RFF services inspections. One intermediate audit is performed in-between two re-certifications to verify the implementation of the action plan measures and some aspects, within the certification scope, which are selected on the basis of the risk-based analysis. Outside of the framework of regular and continuous surveillance activities, the SIAP also performs some surveillance activities with respect to infrastructure equipment and certain technical aspects (RFF, obstacles, etc.), and checks are determined by a risk-based analysis. These surveillance actions and their planning are provided for in several continuing surveillance annual plans. However, these plans do not include random inspections, and the appropriate frequency of inspections has not been defined to ensure the periodic review of infrastructure and equipment, as well as all the other aspects covered by the certification process in-between two re-certifications.

### 3.8 **Critical element 8 — Resolution of safety concerns**

“The implementation of processes and procedures to resolve identified deficiencies impacting aviation safety, which may have been residing in the aviation system and have been detected by the regulatory authority or other appropriate bodies.

*Note.— This would include the ability to analyse safety deficiencies, forward recommendations, support the resolution of identified deficiencies as well as take enforcement action, when appropriate.”*

3.8.1 In the area of personnel licensing, the computerized systems run by the FOCA are fully capable of tracking personnel licensing and training deficiencies identified through routine and non-routine surveillance activities, including those deficiencies related to the activities of designated examiners, as to ensure timely resolution. Evidence presented to the audit team confirmed adequate follow-up of deficiencies and their closure in a reasonable time.

3.8.2 Concerning aircraft operations, the FOCA management system also enables the tracking of deficiencies and open items identified through inspections and audits conducted by the Surveillance of Flight Operations Section of the Safety Division — Flight Operations. All identified deficiencies are normally resolved in a timely manner. However, when required, appropriate enforcement action is taken by the Standardization and Enforcement Section.

3.8.3 With respect to airworthiness activities, the resolution of deficiencies identified during inspections of CAMOs is timely monitored. Findings are categorized into different levels and may lead to the suspension or revocation of the certificate or approval if necessary. The Design and Production Section is responsible for the development of airworthiness directives (ADs) for Annex II aircraft and the drafting of EASA ADs for aeronautical products for which it has been tasked as leading authority. Regular meetings are held with DOAs and POAs to discuss certification and continuing airworthiness issues to agree on proper courses of action including the need for the issuance of ADs. All ADs applicable to aircraft on the Swiss register are published on the FOCA website including emergency ADs, ADs for products manufactured in Switzerland and EASA AD biweekly reports. The FOCA has established an effective database (EMPIC management system) to track and transmit its mandatory continuing airworthiness information to aircraft operators and States.

3.8.4 Concerning air navigation services, all deficiencies identified by the inspectorate staff are properly being followed up through the documented system of the FOCA with a view to ensuring the timely resolution of concerns raised. The process includes the communication of audit findings to the relevant ANSPs

with a request for corrective actions to address non-conformities identified. In addition, the SIFS carries out regular follow-up visits to ensure compliance with non-conformity reports.

3.8.5 In the area of aerodromes, deficiencies identified are communicated to the aerodrome operator through the audit report that also requests for an action plan. Action plans are reviewed by aerodrome inspectors, and follow-up audits may be performed to assess the progress of the implementation of the corrective actions and to check compliance with the requirements. These activities are documented through Excel data files which allow for the tracking of deficiencies and their resolution in a timely manner. If required, Directive R005 dated 1 July 2005 allows aerodrome inspectors to take the necessary measures on site in case of a major safety deficiency. Regular meetings of the COFA Working Group allow for an efficient exchange of information between Swiss aerodrome operators and the FOCA. In addition, the SIAP provides the aerodrome operators with the relevant data recorded in the mandatory recording system and participates in the runway safety teams meetings that, among others, analyse the aerodrome safety data.

3.8.6 With respect to aircraft accident and incident investigation, the AAIB has implemented an effective system for the issuance of safety recommendations during or at the completion of its investigations. In addition, the AAIB monitors the implementation of the safety recommendations that it has issued. Follow-up on the safety recommendations issued to Switzerland by other States is done by the FOCA. The AAIB is responsible for the forwarding of preliminary reports and accident/incident data reports to ICAO and entitled States, in conformance with Chapter 7 of Annex 13 to the Chicago Convention. These reports have systematically been forwarded as required. The FOCA has established a formal mandatory reporting system and the associated legislative provisions. Mandatory occurrence reporting by all approval holders and aircraft operators is accomplished using an established reporting format sent by mail or e-mail directly to the Safety Resource Management Office, which populates the information using the European Co-ordination Centre for Aviation Incident Reporting Systems database for further analysis. Switzerland has developed a voluntary incident reporting system to facilitate the collection of safety information, called the Swiss Aviation Notification System, which is managed by the Safety Risk Management Department of the FOCA. This Department is primarily responsible for the collection and analysis of all data collected through the multiple reporting mechanisms involving Swiss aircraft, maintenance operations, aerodromes or airspace. This information represents a highly valuable contribution to the identification of safety risks. Reports received are de-identified before being stored, and the legislation provides the necessary protection of the information source, except in cases of criminal acts. Based on the accident and incident information as a result of an investigation, the FOCA conducts safety analyses to identify any preventive action required. The FOCA has established an effective reporting system for the notification of incidents by persons and organizations.

#### **4. VISITS TO THE INDUSTRY/SERVICE PROVIDERS**

4.1 Accompanied by staff members of the State's civil aviation system, the audit teams visit aviation service providers, operations and maintenance departments of operators and maintenance organizations, aeronautical product/equipment manufacturers, aviation training institutes, etc. The objective of the visits is to validate the capability of the State to supervise the activities of these service providers, airlines and organizations.

4.2 In the case of Switzerland, the audit team visited the following organizations:

- a) Edelweiss Airlines at Zurich International Airport (OPS);
- b) Pilatus Aircraft Ltd, Stans Switzerland (AIR- Design and production);
- c) SR Technics (AIR-Continuous Airworthiness);

- d) the ANS team visited the ACC facilities of Skyguide, the RCC established by REGA, the provider of rescue services, and the MeteoSwiss facilities, which are located in Zurich (ANS); and
- e) Zurich International Airport (AGA).

## 5. AUDIT FINDINGS AND DIFFERENCES DATABASE (AFDD)

5.1 The general objective of the AFDD is to assist States in identifying the elements that need attention in the implementation of the proposed corrective action plan. The information is also intended to assist States in establishing a priority of actions to be taken to resolve safety concerns identified by the audits. Appendix 2 to this report contains a graphic representation of the lack of effective implementation of the critical elements of safety oversight (ICAO Doc 9734, Part A refers) in Switzerland, reflecting as well the results of the latest audit carried out on EASA at the time of the audit of Switzerland and at a global level (average results from all States audited). The graphic representation enables the audited State to prioritize the necessary corrective actions and to identify assistance requirements based on its personnel, technical and financial capabilities in consideration of its safety oversight obligations.

## 6. STATE AVIATION ACTIVITY QUESTIONNAIRE (SAAQ)

6.1 The SAAQ is one of the major tools required for conducting a comprehensive systems approach-based safety oversight audit. As such, all Contracting States are required to complete the SAAQ and submit it to ICAO for proper evaluation and recording. The submitted information enables ICAO to maintain an up-to-date database on the State's civil aviation activities. Switzerland has submitted its SAAQ to ICAO, which can be found at <http://www.icao.int/soa>.

## 7. COMPLIANCE CHECKLISTS (CCs)

7.1 The CCs are one of the main tools used in the conduct of safety oversight audits under the comprehensive systems approach. As such, all Contracting States are required to complete the CCs and submit them to ICAO for evaluation and recording. The submitted information enables ICAO to maintain an up-to-date database on the State's level of compliance to the ICAO SARPs and assist in facilitating the conduct of a standardized audit of all Contracting States. As a result, States will be enabled to have a clear picture of the implementation status of the relevant SARPs. Switzerland has submitted its CCs to ICAO, which can be found at <http://www.icao.int/soa>.

## 8. FOLLOW-UP ACTION

8.1 In accordance with the MOU agreed to between Switzerland and ICAO, Switzerland submitted a corrective action plan on 17 August 2010 and an update to the action plan on 15 November 2010. The action plan submitted was reviewed by the Continuous Monitoring and Oversight Section and was found to fully address most of the findings and recommendations contained in this report. The proposed action plan, including comments and clarifications provided by the State, is attached as Appendix 3 to this report. Comments by ICAO on each corrective action are found in Appendix 1 to this report.

# **APPENDIX 1**

**APPENDIX 1-1-01**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**PRIMARY AVIATION LEGISLATION AND CIVIL AVIATION REGULATIONS**

<b>SWITZERLAND</b>	<b>LEG/01</b> 1.005; 1.009; 1.029; 7.009; 7.011; 7.013; 7.015; 8.001;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1 X</b>	<b>CE-2 X</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
Switzerland has established the following mechanisms for the promulgation of implementing regulations:							
<ul style="list-style-type: none"> <li>a) ordinances promulgated by the Federal Council, the Department of Environment, Transport, Energy and Communications (DETEC) and the Federal Office of Civil Aviation (FOCA);</li> <li>b) direct applicability of the Standards and Recommended Practices (SARPs) of the Annexes to the Chicago Convention, including related technical specifications;</li> <li>c) direct applicability of mandatory provisions emanating from the European Organisation for the Safety of Air Navigation (EUROCONTROL); and</li> <li>d) adoption of European Union (EU) regulations, within the framework of the Agreement between the Swiss Confederation and the European Union, through the Joint Committee.</li> </ul>							
However:							
<ul style="list-style-type: none"> <li>a) some ordinances do not reflect the latest Annexes to the Chicago Convention;</li> <li>b) no clear indication is provided regarding the status of the Recommended Practices of the Annexes to the Chicago Convention which have been made directly applicable;</li> <li>c) redundancies have been noted with direct applicability of EUROCONTROL mandatory requirements and the Annex to the Decisions of the Joint Committee regarding adopted EU regulations;</li> <li>d) the procedures with respect to the Agreement between the Swiss Confederation and European Union for the review and adoption of EU regulations are not being systematically followed; and</li> <li>e) the procedures which have been developed for the amendment of regulations do not include a requirement to ensure that adopted regulations comply with relevant Annexes to the Chicago Convention initially and on an ongoing basis, subsequent to an Annex amendment.</li> </ul>							

**APPENDIX 1-1-01**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**PRIMARY AVIATION LEGISLATION AND CIVIL AVIATION REGULATIONS**

<p><b>SWITZERLAND</b></p>   <p>Audit Period: 01/03/2010 - 10/03/2010</p>	<p><b>LEG/01</b> 1.005; 1.009; 1.029; 7.009; 7.011; 7.013; 7.015; 8.001;</p>
<p><b>RECOMMENDATION:</b></p> <p>The Federal Council should take appropriate measures for ensuring that:</p> <ul style="list-style-type: none"> <li>a) ordinances issued reflect the latest Annexes to the Chicago Convention;</li> <li>b) clear indication is provided regarding the status of the Recommended Practices of Annexes to the Chicago Convention which have been made directly applicable and, in addition, some pertinent Annexes are transposed into national requirements;</li> <li>c) the redundancies noted with the direct applicability of EUROCONTROL mandatory requirements and the Annex to the Decisions of the Joint Committee regarding adopted EU regulations are properly addressed;</li> <li>d) the procedures with respect to the Agreement between the European Union and the Swiss Confederation for the review and adoption of EU regulations are systematically followed in accordance with the timelines which have been established; and</li> <li>e) the procedures which have been developed for the amendment of the regulations include a requirement to ensure that adopted regulations comply with the relevant Annexes to the Chicago Convention initially and on an ongoing basis, subsequent to an Annex amendment.</li> </ul>	
<p><b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b></p> <p>Corrective action plan and comments submitted by the State are found at Appendix 3-1-1 of this report.</p>	
<p><b>COMMENTS BY ICAO:</b></p> <p>The corrective action plan submitted by the State partially addresses this ICAO finding and recommendation. The State has indicated that it will not take any corrective action to address paragraphs c) and d) of this ICAO finding and recommendation.</p>	

**APPENDIX 1-1-02**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**PRIMARY AVIATION LEGISLATION AND CIVIL AVIATION REGULATIONS**

<b>SWITZERLAND</b>	<b>LEG/02</b> 1.019; 7.107;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1 X</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
<p>Switzerland has taken responsibility for the provision of services within some sectors of French, German and Italian airspace. In addition, it has delegated the responsibility for the provision of air traffic services in some sectors of its airspace to France and Italy. An agreement has been made with France regarding the responsibility for oversight activities over delegated airspaces. However, the documents/agreements defining the responsibility for oversight activities with respect to airspace over Germany, to which it provides air traffic services, and delegated airspaces with Italy have not been finalized.</p> <p>EUROCONTROL is a service provider of the Integrated Initial Flight Plan Processing System (IFPS) and the Central Flow Management Unit (CFMU); however, no mechanism for safety oversight has been established by the FOCA in respect of these services.</p>							
<b>RECOMMENDATION:</b>							
<p>The DETEC should take appropriate measures to ensure that:</p> <ul style="list-style-type: none"> <li>a) an agreement is reached with Germany regarding the responsibility for oversight activities over airspace delegated to Switzerland for the provision of air traffic services; and</li> <li>b) an agreement is reached with Italy regarding responsibilities for oversight activities over delegated airspaces.</li> </ul> <p>The FOCA should take appropriate measures to ensure that a mechanism for safety oversight over the IFPS and CFMU services provided by EUROCONTROL is established.</p>							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
<p>Corrective action plan and comments submitted by the State are found at Appendix 3-1-2 of this report.</p> <p style="text-align: right;">Estimated Implementation Date: 31/12/2012</p>							
<b>COMMENTS BY ICAO:</b>							
<p>The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.</p>							

**APPENDIX 1-1-03**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**PRIMARY AVIATION LEGISLATION AND CIVIL AVIATION REGULATIONS**

<b>SWITZERLAND</b>	<b>LEG/03</b> 4.157; 5.371;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2 X</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6 X</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
<p>The FOCA has carried out preparatory work for the implementation of the Standards of Annex 6 to the Chicago Convention for air operators and maintenance organizations to establish and implement safety management systems (SMS). National regulations have been established referring to the ICAO Annex 6 provisions, and guidance material has been posted on the FOCA public website. However, the European Commission (EC) has not established legislation and a means of compliance to allow for the timely implementation of SMS in Switzerland for air operators and approved maintenance organizations (AMOs), by the applicability date of 1 January 2009.</p>							
<b>RECOMMENDATION:</b>							
<p>Switzerland should work closely with the EC and the European Aviation Safety Agency (EASA) for the timely development and promulgation of legislation and a means of compliance, to provide a legal basis for the timely and effective implementation of SMS by air operators and AMOs.</p>							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
<p>Comments submitted by the State are found at Appendix 3-1-3 of this report.</p>							
<b>COMMENTS BY ICAO:</b>							
<p>The State has indicated that it will not take any corrective action to address this ICAO finding and recommendation.</p>							

**APPENDIX 1-1-04**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**PRIMARY AVIATION LEGISLATION AND CIVIL AVIATION REGULATIONS**

<b>SWITZERLAND</b>	<b>LEG/04</b> 5.003;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2 X</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
Switzerland has established airworthiness regulations in the form of ordinances applicable to its Annex II (non-EASA) type aircraft. However, most of the airworthiness regulations make reference to the use of EC requirements that have been repealed or amended.							
<b>RECOMMENDATION:</b>							
Switzerland should amend its national regulations to ensure that they detail the airworthiness requirements for its Annex II aircraft and make reference to a specific EC requirement only if it is still valid.							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Comments submitted by the State are found at Appendix 3-1-4 of this report.							
<b>COMMENTS BY ICAO:</b>							
The State has indicated that it will not take any corrective action to address this ICAO finding and recommendation.							

**APPENDIX 1-1-05**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**PRIMARY AVIATION LEGISLATION AND CIVIL AVIATION REGULATIONS**

<b>SWITZERLAND</b>	<b>LEG/05</b> 1.151;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1 X</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
Switzerland has ratified Article 83 <i>bis</i> of the Chicago Convention, which entered into force on 20 June 1997; however, the legislative framework does not clearly allow the transfer and acceptance of the State's responsibilities pertaining to Articles 12, 30, 31 and 32 (a) of the Chicago Convention.							
<b>RECOMMENDATION:</b>							
Switzerland should amend its primary aviation legislation, related operating regulations and procedures to reflect the transfer of the duties and responsibilities as envisaged by Article 83 <i>bis</i> of the Chicago Convention, and ensure that the legislative framework clearly allows the transfer and acceptance of the State's responsibilities pertaining to Articles 12, 30, 31 and 32 (a) of the Chicago Convention.							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-1-5 of this report. <div style="text-align: right;">Estimated Implementation Date: 31/12/2014</div>							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-2-01**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**CIVIL AVIATION ORGANIZATION**

<b>SWITZERLAND</b>	<b>ORG/01</b> 2.009;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3 X</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
Article 3 (2) of the Federal Aviation Act established the FOCA as a special division of the DETEC responsible for carrying out immediate surveillance activities. The duties and responsibilities of the FOCA are stipulated in Article 7 of Ordinance 172.217.1. However, although the organizational structure of the FOCA makes reference to "Members of the Board", which in practice are the Director General, his or her Deputy and the Directors of the five divisions, no legal basis has been established with respect to the establishment of this Board of the FOCA.							
<b>RECOMMENDATION:</b>							
The DETEC should define, through an ordinance, the composition, duties and responsibilities of the Board of the FOCA, including its Chairman.							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-2-1 of this report. <div style="text-align: right;">Estimated Implementation Date: 30/06/2011</div>							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-2-02**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**CIVIL AVIATION ORGANIZATION**

<b>SWITZERLAND</b>	<b>ORG/02</b> 2.053;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3 X</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
The FOCA has identified a requirement for 44 additional staff to enable the FOCA to meet, in an effective an efficient manner, its national and international obligations related to civil aviation safety oversight. In a first step, 20 additional posts have been accepted by the Federal Council. These posts have been implemented by the end of 2008. In a second step, the remaining 24 posts have to be accepted by the Swiss Parliament. However, these 24 posts have not been approved yet.							
<b>RECOMMENDATION:</b>							
Switzerland should ensure that all identified 44 posts are implemented in order to meet the short-, medium- and long-term obligations of the State with respect to civil aviation safety oversight.							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-2-2 of this report. <div style="text-align: right;">Estimated Implementation Date: 31/12/2012</div>							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-3  
FINDINGS AND RECOMMENDATIONS RELATED TO  
PERSONNEL LICENSING AND TRAINING**

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**APPENDIX 1-4-01**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIRCRAFT OPERATIONS CERTIFICATION AND SUPERVISION**

<b>SWITZERLAND</b>	<b>OPS/01</b> 4.035; 5.035;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3 X</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
Although flight operations and airworthiness inspectors have been provided with credentials with which to access facilities, they experience delays in carrying out inspections as a result of having to pass through lengthy security checks for accessing protected areas.							
<b>RECOMMENDATION:</b>							
The FOCA should work closely with the airport and security authorities to facilitate the passage of its inspectors through security checks in order to expedite access to facilities and aircraft for the purpose of carrying out safety inspections.							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-4-1 of this report. <div style="text-align: right;">Estimated Implementation Date: 30/06/2011</div>							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-4-02**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIRCRAFT OPERATIONS CERTIFICATION AND SUPERVISION**

<p><b>SWITZERLAND</b></p>   <p>Audit Period: 01/03/2010 - 10/03/2010</p>	<p>OPS/02 4.263;</p>
<p><b>DOCUMENT REFERENCE:</b></p> <p>Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.</p>	
<p><b>CE-1      CE-2      CE-3      CE-4      CE-5      CE-6 X      CE-7      CE-8</b></p>	
<p><b>FINDING:</b></p> <p>The FOCA has developed regulations, certification processes and inspector procedures for the purpose of ensuring that air operators establish an organization and management system for the operational control of all flights. However, a review of two operations manuals showed differences in the manner that air operators have depicted the responsibilities for operational control, particularly with respect to the responsibilities and authority of the pilot-in-command.</p>	
<p><b>RECOMMENDATION:</b></p> <p>The FOCA should develop guidance material to enable the adoption of a more standardized approach by air operators in the establishment in their operations manuals of the responsibilities for operational control and the development of the related policies, processes, standards and procedures. In particular, the guidance material should emphasize the primacy of maintaining safety, and the responsibilities of the pilot-in-command for the operation and safety of the aeroplane from the moment it is ready to move for the purpose of taking off to when it comes to rest upon completion of the flight.</p>	
<p><b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b></p> <p>Corrective action plan and comments submitted by the State are found at Appendix 3-4-2 of this report.</p> <p style="text-align: right;">Estimated Implementation Date: 30/06/2011</p>	
<p><b>COMMENTS BY ICAO:</b></p> <p>The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.</p>	

**APPENDIX 1-4-03**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIRCRAFT OPERATIONS CERTIFICATION AND SUPERVISION**

<b>SWITZERLAND</b>  Audit Period: 01/03/2010 - 10/03/2010	<b>OPS/03</b> 4.129;    4.131;    4.133;    4.271;    4.309;								
<b>DOCUMENT REFERENCE:</b>  Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.									
<table style="width: 100%; border: none;"> <tr> <td style="width: 12.5%;"><b>CE-1</b></td> <td style="width: 12.5%;"><b>CE-2 X</b></td> <td style="width: 12.5%;"><b>CE-3</b></td> <td style="width: 12.5%;"><b>CE-4</b></td> <td style="width: 12.5%;"><b>CE-5</b></td> <td style="width: 12.5%;"><b>CE-6 X</b></td> <td style="width: 12.5%;"><b>CE-7 X</b></td> <td style="width: 12.5%;"><b>CE-8</b></td> </tr> </table>		<b>CE-1</b>	<b>CE-2 X</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6 X</b>	<b>CE-7 X</b>	<b>CE-8</b>
<b>CE-1</b>	<b>CE-2 X</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6 X</b>	<b>CE-7 X</b>	<b>CE-8</b>		
<b>FINDING:</b>  Switzerland has adopted the EU-OPS regulations, which in certain cases do not cover the Standards of Annex 6, Part I of the Chicago Convention. In particular, the EU-OPS regulations do not refer to the need for the operator to: <ul style="list-style-type: none"> <li>a) develop procedures to ensure that the aeroplane flight manual is updated by implementing changes made mandatory or approved by the State of Registry;</li> <li>b) maintain up-to-date and sufficient documentation concerning the flight data recorder parameter allocation, conversion equations, periodic calibration and other serviceability/maintenance information;</li> <li>c) develop a policy and procedures for the flight crew to make routine meteorological reports during en-route and climb-out phases of flight, in addition to the non-routine reports to be made during any phase of the flight; and</li> <li>d) establish a requirement in the operations manual for crew briefings, to include take-off, as well as approach and landing briefings.</li> </ul>									
<b>RECOMMENDATION:</b>  Switzerland should work with the EC and EASA to revise the EU-OPS regulations to ensure that they require air operators to: <ul style="list-style-type: none"> <li>a) develop procedures to ensure that the aeroplane flight manual is updated by implementing changes made mandatory or approved by the State of Registry;</li> <li>b) maintain up-to-date and sufficient documentation concerning the flight data recorder parameter allocation, conversion equations, periodic calibration and other serviceability/maintenance information;</li> <li>c) develop a policy and procedures for the flight crew to make routine meteorological reports during en-route and climb-out phases of flight, in addition to the non-routine reports to be made during any phase of the flight; and</li> <li>d) establish a requirement in the operations manual for crew briefings, to include take-off, as well as approach and landing briefings.</li> </ul> <p>In addition, the FOCA should establish procedures for the implementation of requirements for the air operator to maintain up-to-date and sufficient documentation concerning flight data recorder serviceability/maintenance information.</p>									
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>  Corrective action plan and comments submitted by the State are found at Appendix 3-4-3 of this report. <p style="text-align: right;">Estimated Implementation Date: 30/06/2012</p>									
<b>COMMENTS BY ICAO:</b>  The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.									

**APPENDIX 1-4-04**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIRCRAFT OPERATIONS CERTIFICATION AND SUPERVISION**

<p><b>SWITZERLAND</b></p>          <p>Audit Period: 01/03/2010 - 10/03/2010</p>	<p><b>OPS/04</b> 4.389; 4.391; 4.433;</p>
<p><b>DOCUMENT REFERENCE:</b></p> <p>Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.</p>	
<p><b>CE-1      CE-2 X      CE-3      CE-4      CE-5      CE-6 X      CE-7      CE-8</b></p>	
<p><b>FINDING:</b></p> <p>Switzerland has not promulgated a regulation requiring a certified true copy of the air operator certificate (AOC) and corresponding operations specifications, including leased aircraft, to be carried on board the aircraft at all times. Furthermore, it has not developed a regulation requiring that a certified true copy of the transfer agreement of the supervisory functions and duties pursuant to Article 83 <i>bis</i> of the Chicago Convention is also carried on board at all times. Current practice introduced by the FOCA requires an AOC extract that indicates that the copy of the AOC on board the aircraft is a true copy. The extract contains the original signature of the FOCA Head of the Certification Flight Operations and refers to the governing EU-OPS regulation 1.125 that requires an original or copy of the AOC to be carried on each flight.</p> <p>In addition, Switzerland has adopted EU-OPS 1.175, as the regulation governing the need for the AOC and associated authorizations, conditions and limitations that are issued by the FOCA to contain all the elements identified in Part I of Annex 6 to the Chicago Convention. However, no requirement exists for these documents to contain the location, in a controlled document carried on board the aircraft, where the contact details of operational management can be found.</p>	
<p><b>RECOMMENDATION:</b></p> <p>Switzerland should work with the EC and EASA in order to require that a certified true copy of the AOC and corresponding operations specifications be carried on board the aircraft at all times. A requirement should also be established to ensure that, in the event of a lease agreement under Article 83 <i>bis</i> of the Chicago Convention, a certified true copy of the transfer agreement of the supervisory functions and duties is carried on board the aircraft at all times. Furthermore, the FOCA should ensure that the AOC and its corresponding operations specifications that is carried on board the aircraft is a properly certified copy of the AOC itself, and not an extract of the AOC. The FOCA should also ensure that air operators implement procedures to ensure compliance both with respect to the AOC and its corresponding operations specifications and, in the case of an aircraft leased under Article 83 <i>bis</i> of the Chicago Convention, the transfer agreement.</p> <p>In addition, Switzerland should work with the EC and EASA to revise the existing regulations, in order to require that the AOC and associated authorizations, conditions and limitations that are issued by the FOCA contain the location, in a controlled document carried on board the aircraft, where the contact details of operational management can be found.</p>	
<p><b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b></p> <p>Comments submitted by the State are found at Appendix 3-4-4 of this report.</p>	
<p><b>COMMENTS BY ICAO:</b></p> <p>The State has indicated that it will not take any corrective action to address this ICAO finding and recommendation.</p>	

**APPENDIX 1-5-01**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIRWORTHINESS OF AIRCRAFT**

<b>SWITZERLAND</b>	<b>AIR/01</b> 5.049; 5.055;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4 X</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
The FOCA has implemented a computer-based system to manage the training of its staff and to maintain training records. However, a comprehensive training plan for the airworthiness inspectors is not available, and a number of training records have not been entered into the system. Furthermore, the available records for on-the-job training (OJT) do not show that the training has been provided by experienced, senior inspectors.							
<b>RECOMMENDATION:</b>							
The FOCA should:							
<ul style="list-style-type: none"> <li>a) develop a comprehensive training plan for the airworthiness inspectors;</li> <li>b) ensure that all training records are properly maintained in the computer-based training system; and</li> <li>c) ensure that records for OJT clearly show that the training has been provided by experienced, senior inspectors.</li> </ul>							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-5-1 of this report.							
Estimated Implementation Date: 31/01/2012							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-5-02**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIRWORTHINESS OF AIRCRAFT**

<b>SWITZERLAND</b>	<b>AIR/02</b> 5.153;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2 X</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
Switzerland has not developed detailed regulations to ensure that the Standards of Annex 6 to the Chicago Convention related to the operations-derived equipment are applied to aircraft on the Swiss register.							
<b>RECOMMENDATION:</b>							
Switzerland should work closely with the EC and EASA for the development and promulgation of legislation and/or regulations to ensure that the Standards of Annex 6 to the Chicago Convention related to the operations-derived equipment are addressed with respect to EASA aircraft. In addition, Switzerland should update its national requirements in conformance with Annex 6 to ensure that they equally apply to non-EASA aircraft.							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-5-2 of this report. <div style="text-align: right;">Estimated Implementation Date: 30/04/2012</div>							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-5-03**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIRWORTHINESS OF AIRCRAFT**

<b>SWITZERLAND</b>	<b>AIR/03</b> 5.283; 5.535;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2 X</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
The regulations applicable in Switzerland do not contain provisions related to human factors principles to be observed in the maintenance of aircraft, in conformance with the provisions of Annex 6, Parts I, II and III to the Chicago Convention for the maintenance control manual and the design application of maintenance programmes.							
<b>RECOMMENDATION:</b>							
Switzerland should work closely with the EC and EASA for the development and promulgation of legislation and/or regulations to establish comprehensive requirements for human factors principles to be observed in the maintenance EASA aircraft. In addition, the FOCA should establish requirements for human factors principles to be observed in the design and application of maintenance programmes for non-EASA aircraft.							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-5-3 of this report. <div style="text-align: right;">Estimated Implementation Date: 31/03/2012</div>							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-5-04**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIRWORTHINESS OF AIRCRAFT**

<b>SWITZERLAND</b>  Audit Period: 01/03/2010 - 10/03/2010	<b>AIR/04</b> 5.587;    5.589;								
<b>DOCUMENT REFERENCE:</b>  Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.									
<table style="width: 100%; border: none;"> <tr> <td style="width: 12.5%;"><b>CE-1</b></td> <td style="width: 12.5%;"><b>CE-2</b></td> <td style="width: 12.5%;"><b>CE-3</b></td> <td style="width: 12.5%;"><b>CE-4</b></td> <td style="width: 12.5%;"><b>CE-5</b></td> <td style="width: 12.5%;"><b>CE-6</b></td> <td style="width: 12.5%;"><b>CE-7 X</b></td> <td style="width: 12.5%;"><b>CE-8 X</b></td> </tr> </table>		<b>CE-1</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7 X</b>	<b>CE-8 X</b>
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7 X</b>	<b>CE-8 X</b>		
<b>FINDING:</b>  The FOCA conducts surveillance of its design organization approvals (DOAs) in accordance with the EASA Part-21 requirements. However, the checklists and actual planning forms used by the FOCA are not in accordance with those provided by EASA. Furthermore, the tracking system used to monitor planned surveillance activities and deficiencies identified in surveillance audits does not provide adequate traceability to ensure that all activities of a DOA are in fact audited within a three-year cycle and that the deficiencies identified are resolved within the prescribed time frame.									
<b>RECOMMENDATION:</b>  The FOCA should use the checklists and planning forms provided by EASA and develop a system to ensure that all activities of a DOA are in fact audited within a three-year cycle and that the deficiencies identified are resolved within the prescribed time frame.									
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>  Corrective action plan and comments submitted by the State are found at Appendix 3-5-4 of this report.  <div style="text-align: right;">Estimated Implementation Date: 30/06/2011</div>									
<b>COMMENTS BY ICAO:</b>  The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.									

**APPENDIX 1-6-01**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION**

<p><b>SWITZERLAND</b></p>     <p>Audit Period: 01/03/2010 - 10/03/2010</p>	<p><b>AIG/01</b>    6.021;    6.023;    6.025;    6.027;    6.355;</p>						
<p><b>DOCUMENT REFERENCE:</b></p> <p>Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.</p>							
<b>CE-1 X</b>	<b>CE-2 X</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<p><b>FINDING:</b></p> <p>Switzerland has included requirements in its legislation and regulations for the conduct of investigations of accidents and serious incidents by the Aircraft Accident Investigation Bureau (AAIB). However, the requirements do not include some of the provisions contained in Annex 13 to the Chicago Convention. In particular, there are no requirements for giving the investigation authority/investigator-in-charge:</p> <ul style="list-style-type: none"> <li>a) unhampered access to and control over the scene of the accident and the wreckage;</li> <li>b) unhampered access to and control over all relevant material/evidence, including flight recorders;</li> <li>c) the right to carry out a detailed examination of relevant material/evidence without delay; and</li> <li>d) the right to take statements from witnesses.</li> </ul> <p>Furthermore, the requirements do not provide for adequate protection of the evidence and for maintaining the aircraft and its contents in safe custody for such a period as may be necessary for the purposes of an investigation, including protection against further damage, access by unauthorized persons, pilfering or deterioration.</p>							
<p><b>RECOMMENDATION:</b></p> <p>Switzerland should amend its legislation and regulations for the conduct of investigations of aircraft accidents and serious incidents. In particular, requirements should be established and promulgated in order to give the investigation authority/investigator-in-charge:</p> <ul style="list-style-type: none"> <li>a) unhampered access to and control over the scene of the accident and the wreckage;</li> <li>b) unhampered access to and control over all relevant material/evidence, including flight recorders;</li> <li>c) the right to carry out a detailed examination of relevant material/evidence without delay; and</li> <li>d) the right to take statements from witnesses.</li> </ul> <p>Furthermore, the requirements should provide for adequate protection of the evidence and for maintaining the aircraft and its contents in safe custody for such a period as may be necessary for the purposes of an investigation, including protection against further damage, access by unauthorized persons, pilfering or deterioration.</p>							
<p><b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b></p> <p>Corrective action plan and comments submitted by the State are found at Appendix 3-6-1 of this report.</p> <p style="text-align: right;">Estimated Implementation Date: 31/12/2011</p>							
<p><b>COMMENTS BY ICAO:</b></p> <p>The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.</p>							

**APPENDIX 1-6-02**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION**

<b>SWITZERLAND</b>  Audit Period: 01/03/2010 - 10/03/2010	<b>AIG/02</b> 6.029; 6.031;
<b>DOCUMENT REFERENCE:</b>  Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.	
<b>CE-1      CE-2 X      CE-3      CE-4      CE-5      CE-6      CE-7      CE-8</b>	
<b>FINDING:</b>  The Federal Aviation Act does not provide protection from disclosure of cockpit voice recorders (CVR) recordings, CVR transcripts and all other investigation records listed in Annex 13 to the Chicago Convention.	
<b>RECOMMENDATION:</b>  Switzerland should amend its legislation in order to guarantee that CVR recordings, CVR transcripts and all other investigation records listed in Annex 13 to the Chicago Convention are duly protected from disclosure.	
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>  Corrective action plan and comments submitted by the State are found at Appendix 3-6-2 of this report. <div style="text-align: right;">Estimated Implementation Date: 31/12/2011</div>	
<b>COMMENTS BY ICAO:</b>  The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.	

**APPENDIX 1-6-03**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION**

<b>SWITZERLAND</b>	<b>AIG/03</b> 6.033;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2 X</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
The Federal Aviation Act includes provisions for the participation of accredited representatives from other States in investigations conducted by the AAIB. However, the provisions are general and do not list all of the States that should have such rights according to Annex 13 to the Chicago Convention.							
<b>RECOMMENDATION:</b>							
Switzerland should promulgate detailed legislative provisions for the participation of accredited representatives from other States in investigations conducted by the AAIB. The provisions should list all of the States that should have such rights in conformance with Annex 13 to the Chicago Convention.							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-6-3 of this report. <div style="text-align: right;">Estimated Implementation Date: 31/12/2011</div>							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-7-01**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIR NAVIGATION SERVICES**

<b>SWITZERLAND</b>	ANS/01 7.153;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5 X</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
The FOCA has developed some contingency plans addressing the potential disruption of the air traffic service (ATS) or related supporting services; however, the contingency plans do not address major outages of the ATS system.							
<b>RECOMMENDATION:</b>							
The FOCA should develop and promulgate contingency plans to be implemented in the event of major outages of the ATS system taking into account the guidance material provided in Annex 11 to the Chicago Convention.							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-7-1 of this report. <div style="text-align: right;">Estimated Implementation Date: 30/06/2011</div>							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-7-02**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIR NAVIGATION SERVICES**

<b>SWITZERLAND</b>  Audit Period: 01/03/2010 - 10/03/2010	ANS/02    7.161;    7.169;    7.171;    7.173;    7.175;
<b>DOCUMENT REFERENCE:</b>  Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.	
<b>CE-1            CE-2 X            CE-3 X            CE-4            CE-5            CE-6 X            CE-7 X            CE-8</b>	
<b>FINDING:</b>  The status regarding the establishment of a State's safety programme and the implementation of safety risk management principles and safety assurance in the provision of ATS in Switzerland is summarized as follows:  a) the safety programme established by the FOCA is at an advanced stage and will be promulgated in coordination with the common requirements being established within the European Community by the end of 2010; b) the FOCA has already developed adequate guidance for its inspectors to assess the SMS being implemented throughout the industry, including guidance to organizations required to develop and implement an SMS in accordance with the requirements of the State; and c) Skyguide, the main air navigation services provider in Switzerland, has already taken proactive approach aimed at meeting EUROCONTROL Safety Regulatory Requirements 3 and EU Common Requirements with respect to the establishment and implementation of SMS, and a process for occurrence reporting has accordingly been established.  However:  a) the safety programme, in order to achieve an acceptable level of safety in the provision of ATS, has not yet been fully implemented; b) in the absence of significant safety data, a mature set of metrics defining an acceptable level of safety to be achieved in the provision of ATS has not yet been established, and no mechanism is in place for the acceptance of the SMS of the service providers; and c) no effective oversight on the ATS SMS of the service provider is being conducted.	
<b>RECOMMENDATION:</b>  The FOCA should:  a) establish and implement a safety programme in order to achieve an acceptable level of safety in the provision of ATS; b) establish a mature set of metrics to define an acceptable level of safety to be achieved in the provision of ATS, and put in place a mechanism for the acceptance of the SMS of the service providers; and c) conduct effective oversight on the ATS SMS of the service provider.	
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>  Corrective action plan and comments submitted by the State are found at Appendix 3-7-2 of this report.  <div style="text-align: right;">Estimated Implementation Date: 30/06/2011</div>	

**APPENDIX 1-7-02**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIR NAVIGATION SERVICES**

<b>SWITZERLAND</b>  Audit Period: 01/03/2010 - 10/03/2010	ANS/02 7.161; 7.169; 7.171; 7.173; 7.175;
<b>COMMENTS BY ICAO:</b>  The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.	

**APPENDIX 1-7-03**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIR NAVIGATION SERVICES**

<b>SWITZERLAND</b>	ANS/03 7.311; 7.359;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5 X</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
The FOCA has not fully implemented a mechanism to ensure that aeronautical data quality requirements related to publication resolution and data integrity are in conformance with the provisions of Annex 15 to the Chicago Convention, and that aeronautical data quality requirements related to data integrity and charting resolution are in conformance with the provisions of Annex 4 to the Chicago Convention.							
<b>RECOMMENDATION:</b>							
The FOCA should:							
<ul style="list-style-type: none"> <li>a) ensure, with the support of the Controlled and Harmonized Aeronautical Information Network mechanism, that aeronautical data quality requirements related to publication resolution and data integrity are in conformance with the provisions of Annex 15 to the Chicago Convention and Commission Regulation (EU) No 73/2010; and</li> <li>b) establish a mechanism to ensure that aeronautical data quality requirements related to data integrity and charting resolution are in compliance with the provisions of Annex 4 to the Chicago Convention.</li> </ul>							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-7-3 of this report.							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State partially addresses this ICAO finding and recommendation. The estimated implementation date is not commensurate with the risk associated with the finding.							

**APPENDIX 1-7-04**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIR NAVIGATION SERVICES**

<b>SWITZERLAND</b>	<b>ANS/04</b> 7.209; 7.325; 7.417;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3 X</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
The Air Navigation Services Section of the Safety Division-Infrastructure has a pool of ten officers, trained in multidisciplinary fields, to carry out surveillance and audit activities of the service providers. However, taking into account the level of activities in Switzerland, the Section does not have a sufficient number of qualified subject matter experts to fully address the scope of activities in the areas of Procedures for Air Navigation Services - Aircraft Operations (PANS-OPS), cartography and MET.							
<b>RECOMMENDATION:</b>							
The FOCA should ensure that the Safety Division-Infrastructure is provided with adequate number of trained subject matter experts to fully address the scope of activities in the areas of PANS-OPS, cartography and MET.							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-7-4 of this report. <div style="text-align: right;">Estimated Implementation Date: 31/12/2011</div>							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-7-05**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIR NAVIGATION SERVICES**

<b>SWITZERLAND</b>	ANS/05 7.211; 7.213; 7.215; 7.277; 7.279; 7.281; 7.333; 7.335; 7.337; 7.383; 7.385; 7.425; 7.427; 7.429;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4 X</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
The Air Navigation Services Section of the Safety Division-Infrastructure has not established a formal training programme detailing the types of training to be provided or a training plan detailing and prioritizing the types of training to be provided to its PANS-OPS, aeronautical information service (AIS), cartography, communications, navigation and surveillance (CNS) and MET technical staff.							
<b>RECOMMENDATION:</b>							
The Safety Division-Infrastructure should ensure that a formal training programme detailing the types of training to be provided and a training plan detailing and prioritizing the types of training to be provided are established and implemented for the technical staff of the Air Navigation Services Section who are responsible for the conduct of surveillance and audit activities in the areas of PANS-OPS, AIS, cartography, CNS and MET.							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-7-5 of this report. <div style="text-align: right;">Estimated Implementation Date: 30/06/2012</div>							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-7-06**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIR NAVIGATION SERVICES**

<b>SWITZERLAND</b>	ANS/06 7.231; 7.233; 7.343; 7.345;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7 X</b>	<b>CE-8 X</b>
<b>FINDING:</b>							
The Air Navigation Services Section of the Safety Division-Infrastructure does not conduct effective oversight over the entities of Skyguide which are providing PANS-OPS and cartographic services. Only desktop oversight is being conducted in the area of PANS-OPS.							
<b>RECOMMENDATION:</b>							
The Safety Division-Infrastructure should ensure that:							
<ul style="list-style-type: none"> <li>a) effective oversight over the entities of Skyguide which are providing PANS-OPS and cartographic services is conducted; and</li> <li>b) a mechanism for the elimination of the deficiencies identified by the air navigation services inspectorate staff is established.</li> </ul>							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-7-6 of this report.							
Estimated Implementation Date: 31/12/2010							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-7-07**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIR NAVIGATION SERVICES**

<b>SWITZERLAND</b>	ANS/07 7.271; 7.273; 7.275; 7.327; 7.329; 7.331; 7.419; 7.421; 7.423;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3 X</b>	<b>CE-4 X</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
The Air Navigation Services Section of the Safety Division-Infrastructure has established functions and responsibilities, job descriptions, minimum qualifications and experience requirements for its air navigations services inspectorate staff; however, the qualifications requirements are of generic nature and do not fully address the specific requirements in the areas of AIS, cartography and MET.							
<b>RECOMMENDATION:</b>							
The Safety Division-Infrastructure should ensure that functions and responsibilities, job descriptions, minimum qualifications and experience requirements for its air navigation services inspectorate staff fully address the specific requirements in the areas of AIS, cartography and MET.							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-7-7 of this report. <div style="text-align: right;">Estimated Implementation Date: 30/06/2012</div>							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-7-08**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AIR NAVIGATION SERVICES**

<b>SWITZERLAND</b>  Audit Period: 01/03/2010 - 10/03/2010	<b>ANS/08</b> 7.363;
<b>DOCUMENT REFERENCE:</b>  Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.	
<b>CE-1      CE-2      CE-3      CE-4      CE-5 X      CE-6      CE-7      CE-8</b>	
<b>FINDING:</b>  Switzerland has not published the Enroute Chart - ICAO or, alternatively, the Plotting Chart - ICAO.	
<b>RECOMMENDATION:</b>  The DETEC should establish a mechanism to ensure that the Enroute Chart - ICAO or, alternatively, the Plotting Chart - ICAO is published.	
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>  Corrective action plan and comments submitted by the State are found at Appendix 3-7-8 of this report. <div style="text-align: right;">Estimated Implementation Date: 30/04/2011</div>	
<b>COMMENTS BY ICAO:</b>  The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.	

**APPENDIX 1-8-01**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AERODROMES**

<b>SWITZERLAND</b>	AGA/01 8.081;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2 X</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
The Swiss regulations specify that a first set of two national airports (Geneva and Zurich) and four major regional airports (Bern, Lugano, Saint Gallen-Altenrhein and Sion) had to be certified before 31 December 2009 and that the remaining seven regional airports must be certified before 31 December 2012. Switzerland has certified the two national airports and two regional airports. However, the certification of Lugano and Sion airports is still ongoing.							
<b>RECOMMENDATION:</b>							
The FOCA should conclude the certification process of Lugano and Sion airports							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-8-1 of this report. <div style="text-align: right;">Estimated Implementation Date: 30/11/2011</div>							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-8-02**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AERODROMES**

<p><b>SWITZERLAND</b></p>   <p>Audit Period: 01/03/2010 - 10/03/2010</p>	<p>AGA/02 8.083; 8.161; 8.235;</p>
<p><b>DOCUMENT REFERENCE:</b></p> <p>Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.</p>	
<p><b>CE-1            CE-2            CE-3            CE-4            CE-5 X            CE-6 X            CE-7            CE-8</b></p>	
<p><b>FINDING:</b></p> <p>The infrastructure and equipment projects with respect to aerodromes are reviewed and approved by the Sectorial Plan and Aviation Facilities Section of the Aviation Policy and Strategy Division with the technical support of the Aerodrome and Air Navigation Obstacles Section (SIAP) of the Safety Division-Infrastructure, to ensure compliance with the provisions of Annex 14 to the Chicago Convention. However, during the certification process, the infrastructure and equipment projects or modifications carried out are not subject to a detailed and comprehensive reassessment. The scope of the aerodrome certification process covers the organization, procedures and SMS of the aerodrome operator. However, this process does not include:</p> <ul style="list-style-type: none"> <li>a) an assessment of aerodrome physical characteristics, facilities and equipment (including verification that the aerodrome operators control the lighting intensity);</li> <li>b) an assessment of the formal application; and</li> <li>c) the publication of the certified status of the aerodrome and the required details in the aeronautical information publication (AIP).</li> </ul>	
<p><b>RECOMMENDATION:</b></p> <p>The FOCA should include infrastructure and equipment within the scope of the aerodrome certification. The process should include:</p> <ul style="list-style-type: none"> <li>a) a detailed and comprehensive assessment of the aerodrome physical characteristics, facilities and equipment (including verification that the aerodrome operators control the lighting intensity);</li> <li>b) an assessment of the formal application; and</li> <li>c) the publication of the certified status of the aerodrome and the required details in the AIP.</li> </ul>	
<p><b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b></p> <p>Corrective action plan and comments submitted by the State are found at Appendix 3-8-2 of this report.</p>	
<p><b>COMMENTS BY ICAO:</b></p> <p>The corrective action plan submitted by the State partially addresses this ICAO finding and recommendation. The State has indicated that it will not take any corrective action to address paragraph a) of this ICAO finding and recommendation.</p>	

**APPENDIX 1-8-03**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AERODROMES**

<b>SWITZERLAND</b>  Audit Period: 01/03/2010 - 10/03/2010	AGA/03 8.069; 8.091; 8.169; 8.373;								
<b>DOCUMENT REFERENCE:</b>  Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.									
<table style="width: 100%; border: none;"> <tr> <td style="width: 12.5%;"><b>CE-1</b></td> <td style="width: 12.5%;"><b>CE-2</b></td> <td style="width: 12.5%;"><b>CE-3</b></td> <td style="width: 12.5%;"><b>CE-4</b></td> <td style="width: 12.5%;"><b>CE-5 X</b></td> <td style="width: 12.5%;"><b>CE-6 X</b></td> <td style="width: 12.5%;"><b>CE-7</b></td> <td style="width: 12.5%;"><b>CE-8</b></td> </tr> </table>		<b>CE-1</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5 X</b>	<b>CE-6 X</b>	<b>CE-7</b>	<b>CE-8</b>
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5 X</b>	<b>CE-6 X</b>	<b>CE-7</b>	<b>CE-8</b>		
<b>FINDING:</b>  <p>The SIAP has developed detailed checklists for the assessment of the aerodrome manual and SMS and for some technical aspects (rescue and fire fighting, lighting and visual aids in flight checks and fuelling activities) which are used for projects review and surveillance activities. However, the checklists and/or guidance material do not address, and are not limited to, the following aspects:</p> <ul style="list-style-type: none"> <li>a) aerodrome physical characteristics, facilities and equipment;</li> <li>b) aerodrome markings and visual aids on manoeuvring and traffic areas;</li> <li>c) apron stands clearances and engine blast protections;</li> <li>d) electrical systems and lighting;</li> <li>e) inspection and maintenance of visual aids;</li> <li>f) maintenance of the movement area;</li> <li>g) winter conditions operations;</li> <li>h) safety of works;</li> <li>i) wildlife hazard management; and</li> <li>j) management of exceptions to requirements to include a regular review to assess their continued validity or whether the cause can be removed.</li> </ul> <p>With a view to tracking compliance with initial certification requirements, SIAP aerodrome inspectors use a standardized list of questions covering most of the topics concerning aerodrome operator organization, procedures and SMS to perform the interviews during on-site audits. However, the answers to the questions of the standardized list are not systematically recorded.</p>									
<b>RECOMMENDATION:</b>  <p>The SIAP should:</p> <ul style="list-style-type: none"> <li>a) develop and implement a comprehensive set of procedures and checklists addressing each field of the aerodrome certification to ensure a systematic review of all specific aspects in each field during the certification process; and</li> <li>b) ensure that checklists are systematically completed and the answers to the questions of the standardized list are systematically recorded to ensure traceability of the certification process.</li> </ul>									
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>  Corrective action plan and comments submitted by the State are found at Appendix 3-8-3 of this report.									

**APPENDIX 1-8-03**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AERODROMES**

<b>SWITZERLAND</b>  Audit Period: 01/03/2010 - 10/03/2010	AGA/03 8.069; 8.091; 8.169; 8.373;
<b>COMMENTS BY ICAO:</b>  The corrective action plan submitted by the State partially addresses this ICAO finding and recommendation. The State has indicated that it will not take any corrective action to address paragraph b) of this ICAO finding and recommendation.	

**APPENDIX 1-8-04**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AERODROMES**

<b>SWITZERLAND</b>	AGA/04 8.085; 8.101;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6 X</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
The FOCA does not require that a prospective aerodrome operator completes and submits a formal application for obtaining an aerodrome certificate. In addition, the standardized aerodrome certificate does not contain the appropriate information in adherence to ICAO Doc 9774 - <i>Manual on Certification of Aerodromes</i> .							
<b>RECOMMENDATION:</b>							
The FOCA should:							
<ul style="list-style-type: none"> <li>a) require that a prospective aerodrome operator completes and submits a formal application for obtaining an aerodrome certificate; and</li> <li>b) establish and use a standardized aerodrome certificate which contains the appropriate information in adherence to ICAO Doc 9774 - <i>Manual on Certification of Aerodromes</i>.</li> </ul>							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Corrective action plan and comments submitted by the State are found at Appendix 3-8-4 of this report.							
Estimated Implementation Date: 30/06/2011							
<b>COMMENTS BY ICAO:</b>							
The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.							

**APPENDIX 1-8-05**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AERODROMES**

<b>SWITZERLAND</b>	AGA/05 8.139;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2 X</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>FINDING:</b>							
Concerning the requirement for the use of a pavement by an aircraft with an aircraft classification number (ACN) higher than the reported pavement classification number (PCN), Switzerland “directly applies” the recommendations on the subject contained in Annex 14 to the Chicago Convention. However, associated guidance material to enable the effective implementation of the regulation has not been developed for the industry.							
<b>RECOMMENDATION:</b>							
The FOCA should develop and disseminate to the industry guidance material to enable the effective implementation of the regulation on the use of a pavement by an aircraft with an ACN higher than the reported PCN.							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Comments submitted by the State are found at Appendix 3-8-5 of this report.							
<b>COMMENTS BY ICAO:</b>							
The State has indicated that it will not take any corrective action to address this ICAO finding and recommendation.							

**APPENDIX 1-8-06**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AERODROMES**

<b>SWITZERLAND</b>  Audit Period: 01/03/2010 - 10/03/2010	AGA/06 8.185;								
<b>DOCUMENT REFERENCE:</b>  Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.									
<table style="width: 100%; border: none;"> <tr> <td style="width: 12.5%;"><b>CE-1</b></td> <td style="width: 12.5%;"><b>CE-2</b></td> <td style="width: 12.5%;"><b>CE-3</b></td> <td style="width: 12.5%;"><b>CE-4</b></td> <td style="width: 12.5%;"><b>CE-5</b></td> <td style="width: 12.5%;"><b>CE-6 X</b></td> <td style="width: 12.5%;"><b>CE-7</b></td> <td style="width: 12.5%;"><b>CE-8</b></td> </tr> </table>		<b>CE-1</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6 X</b>	<b>CE-7</b>	<b>CE-8</b>
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6 X</b>	<b>CE-7</b>	<b>CE-8</b>		
<b>FINDING:</b>  Switzerland adopted <i>Regulation (EC) No 2320/2002 of the European Union and of the Council of 16 December 2002</i> , as repealed by EC 300/2008, establishing common rules in the field of civil aviation security. However, this regulation does not require the lighting of security fences and barriers, and Switzerland has not issued an additional regulatory requirement in that respect.									
<b>RECOMMENDATION:</b>  Switzerland should establish and implement a regulatory requirement for the lighting of security fences and barriers in conformance with the requirements of Annex 14, Volume I to the Chicago Convention.									
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b> Corrective action plan and comments submitted by the State are found at Appendix 3-8-6 of this report. <div style="text-align: right;">Estimated Implementation Date: 31/08/2010</div>									
<b>COMMENTS BY ICAO:</b>  The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.									

**APPENDIX 1-8-07**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AERODROMES**

<b>SWITZERLAND</b>  Audit Period: 01/03/2010 - 10/03/2010	AGA/07 8.327; 8.333;								
<b>DOCUMENT REFERENCE:</b>  Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.									
<table style="width: 100%; border: none;"> <tr> <td style="border: none;"><b>CE-1</b></td> <td style="border: none;"><b>CE-2 X</b></td> <td style="border: none;"><b>CE-3</b></td> <td style="border: none;"><b>CE-4</b></td> <td style="border: none;"><b>CE-5</b></td> <td style="border: none;"><b>CE-6</b></td> <td style="border: none;"><b>CE-7</b></td> <td style="border: none;"><b>CE-8</b></td> </tr> </table>		<b>CE-1</b>	<b>CE-2 X</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>
<b>CE-1</b>	<b>CE-2 X</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7</b>	<b>CE-8</b>		
<b>FINDING:</b>  The FOCA has established a working group that has issued some guidance on the management of bird strike hazard on aerodromes. However, Switzerland has not promulgated regulations to require: <ul style="list-style-type: none"> <li>a) a bird strike hazard study or assessment to be performed for each of its aerodromes; and</li> <li>b) aerodrome operators to control the development of facilities likely to attract birds on, or in the vicinity of, an aerodrome.</li> </ul> In addition, corresponding guidance material for the industry has not been developed.									
<b>RECOMMENDATION:</b>  Switzerland should promulgate regulations to require: <ul style="list-style-type: none"> <li>a) a bird strike hazard study or assessment to be performed for each of its aerodromes; and</li> <li>b) aerodrome operators to control the development of facilities likely to attract birds on, or in the vicinity of, an aerodrome.</li> </ul> The FOCA should develop related guidance material for the industry.									
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>  Corrective action plan and comments submitted by the State are found at Appendix 3-8-7 of this report.  <div style="text-align: right;">Estimated Implementation Date: 30/06/2015</div>									
<b>COMMENTS BY ICAO:</b>  The corrective action plan submitted by the State fully addresses this ICAO finding and recommendation.									

**APPENDIX 1-8-08**  
**FINDINGS AND RECOMMENDATIONS RELATED TO**  
**AERODROMES**

<b>SWITZERLAND</b>	AGA/08 8.403;						
Audit Period: 01/03/2010 - 10/03/2010							
<b>DOCUMENT REFERENCE:</b>							
Refer to Doc 9735, Appendix F for the document reference(s) associated with the protocol questions identified in this finding.							
<b>CE-1</b>	<b>CE-2</b>	<b>CE-3</b>	<b>CE-4</b>	<b>CE-5</b>	<b>CE-6</b>	<b>CE-7 X</b>	<b>CE-8</b>
<b>FINDING:</b>							
<p>The minimum frequency of inspections has been established for the recertification of aerodromes, review of the aerodrome manual, obstacles survey and rescue and fire fighting services. However, the appropriate frequency of regular inspections of the airport characteristics, infrastructures and equipments has not been defined. Surveillance activities for these domains are determined by a risk-based analysis. One intermediate audit, the “verification audit”, is performed in-between two recertifications to verify the implementation of the action plan measures, and some aspects of the certification scope are selected by risk-based analysis. However, no plans exist for a systematic regular review of all aspects of the aerodrome certification corresponding to the respective chapters of the aerodrome manual.</p>							
<b>RECOMMENDATION:</b>							
<p>The SIAP should determine the appropriate frequency for each type of inspection. It should establish and implement a formal comprehensive surveillance programme which includes periodic and non-periodic audits and inspections covering all aspects of the certification and operation of an aerodrome, including infrastructure and equipment, to ensure that the aerodrome will be inspected on a regular basis.</p>							
<b>CORRECTIVE ACTION PLAN PROPOSED BY THE STATE:</b>							
Comments submitted by the State are found at Appendix 3-8-8 of this report.							
<b>COMMENTS BY ICAO:</b>							
The State has indicated that it will not take any corrective action to address this ICAO finding and recommendation.							

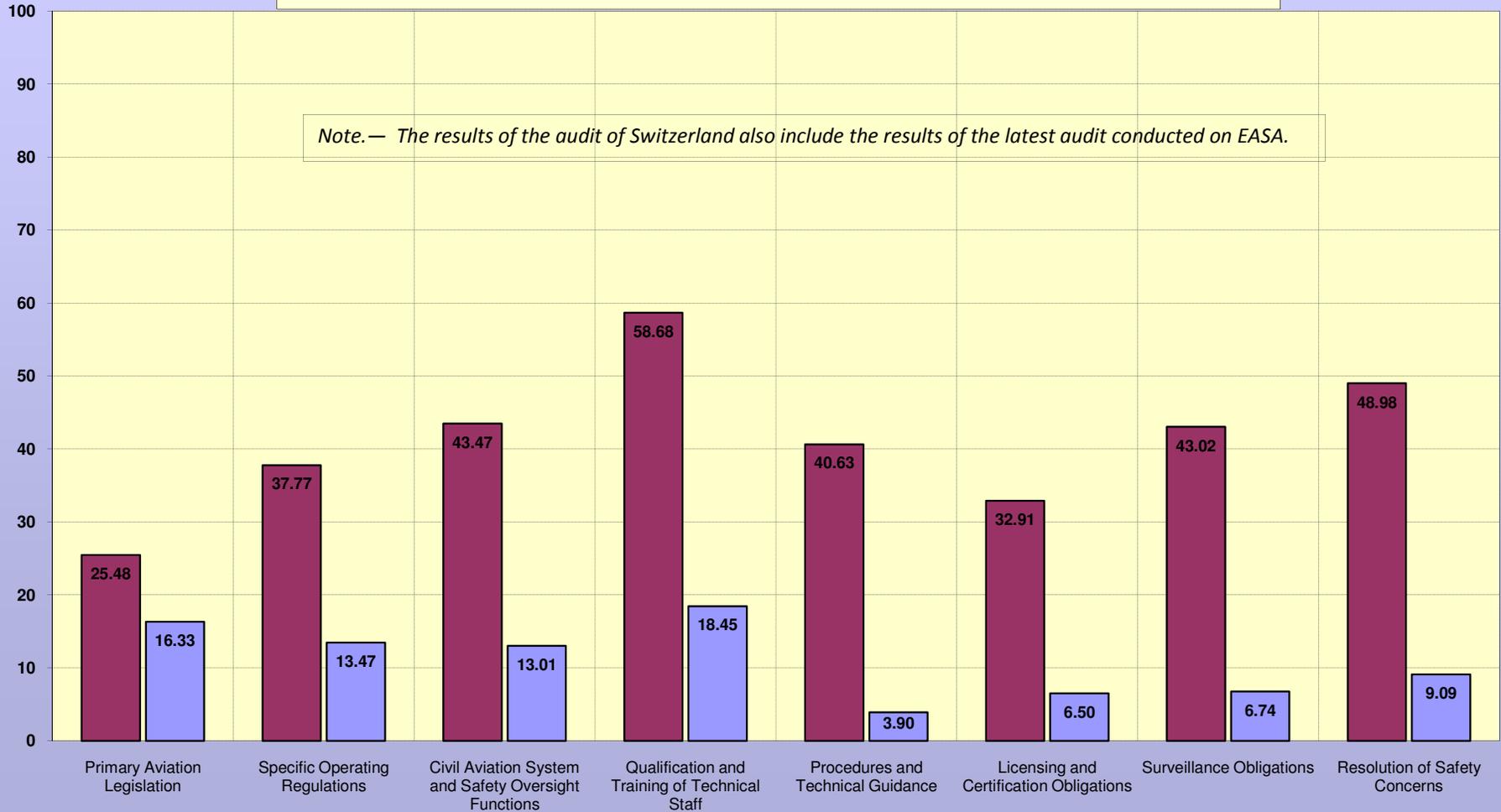
# **APPENDIX 2**

## CRITICAL ELEMENTS OF A SAFETY OVERSIGHT SYSTEM LACK OF EFFECTIVE IMPLEMENTATION (%)

■ Global: (173) Audited States: 41.36%

■ SWITZERLAND 10.93%

*Note.— The results of the audit of Switzerland also include the results of the latest audit conducted on EASA.*



# **APPENDIX 3**

**APPENDIX 3-1-1**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO PRIMARY AVIATION LEGISLATION  
AND CIVIL AVIATION REGULATIONS**

<b>AUDIT FINDING LEG/01</b>		
Please refer to Appendix 1-1-01 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the paragraphs a), b), and e) of the finding, but it does not agree with the paragraphs c) and d).  c) Eurocontrol requirements are applicable in Switzerland even if they have not been incorporated into the Annex of the bilateral agreement between Switzerland and the EC. They remain mandatory; hence, there is no legal loophole.  d) This would have no consequence on the enforcement of the Annexes in Switzerland. Furthermore, the EC Commission has refused to have the ordinary 2009 meeting of the Joint Committee during that year as set forth in the agreement and in spite of the Swiss repeated requests. The 2009 meeting was finally postponed to 2010 and took place on 7 april 2010. The 2010 meeting will take place on 26 November 2010.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
e) Although the Swiss Constitution requires that the national legislation complies with the international instruments binding for Switzerland, the relevant procedure for the enacting of new legislation shall be adapted in order to require a systematic, preliminary check of the compliance with the relevant Annexes.	LERI	31 December 2010
a) A procedure has been defined in order to ensure that the amendments of the ICAO Annexes are published in the official Compendium of Swiss laws. All the Ordinances will be checked in order to ensure that they refer to the standard actually in force. The necessary amendments shall be made.	LERI	31 December 2011

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**APPENDIX 3-1-1 (CONT.)**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO PRIMARY AVIATION LEGISLATION  
AND CIVIL AVIATION REGULATIONS**

<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
b) A procedure is being defined to ensure that recommended practices are incorporated in national law (Ordinances) wherever the national authorities decide that they shall be enforced in Switzerland. The appropriate information has been provided and the necessary instructions given to all the services of the FOCA to ensure that this principle is applied in a homogeneous way.	LERI	30 June 2011

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**APPENDIX 3-1-2**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO PRIMARY AVIATION LEGISLATION  
AND CIVIL AVIATION REGULATIONS**

<b>AUDIT FINDING LEG/02</b>		
Please refer to Appendix 1-1-02 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
IFPS/CFMU: SIFS will actively bring up the issue concerning IFPS/CFMU oversight in the Eurocontrol Safety Regulation Commission (SRC) until end of 2010 as this finding concerns all European States. Switzerland will actively work on an EU-wide solution and push on its implementation (mutual recognition of oversight activities).	SIFS	31 December 2011
b) Switzerland agrees with the finding, but a draft agreement has been proposed to the Italian authorities which remain inactive. They have been requested to express their position several times and never sent any answer. A diplomatic solution is envisaged with the help of France.	LERI	31 December 2011
a) Negotiations with Germany are underway. Switzerland keeps striving for a finalization in the framework of FABEC as soon as possible. Switzerland is awaiting the determination of Germany.	LERI	31 December 2012

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**APPENDIX 3-1-3**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO PRIMARY AVIATION LEGISLATION  
AND CIVIL AVIATION REGULATIONS**

<b>AUDIT FINDING LEG/03</b>		
Please refer to Appendix 1-1-03 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland does not agree with the finding  Switzerland has adopted national legislation requiring that air carriers and maintenance organizations have a SMS as from 1 January 2009. Thus it is in full compliance with ICAO requirements. When an EU legislation will have been enacted, Switzerland will incorporate it. It is expected that this legislation will be compliant with the relevant ICAO requirements.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
No corrective action plan was submitted by the State.		

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**APPENDIX 3-1-4**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO PRIMARY AVIATION LEGISLATION  
AND CIVIL AVIATION REGULATIONS**

<b>AUDIT FINDING LEG/04</b>		
Please refer to Appendix 1-1-04 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland does not agree with the finding.  The references to EU acts are expressed in the national legislation in such a way that the versions incorporated by the Joint Committee are applicable. Regulation 1592/2002 is still valid between Switzerland and the EU. Therefore the current references reflect correctly the existing situation. As soon as Regulation 1592/2002 will be replaced by Regulation 216/2008 in the Annex of our Agreement with the EC, the relevant national legislation will be amended accordingly.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
No corrective action plan was submitted by the State.		

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**APPENDIX 3-1-5**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO PRIMARY AVIATION LEGISLATION  
AND CIVIL AVIATION REGULATIONS**

<b>AUDIT FINDING LEG/05</b>		
Please refer to Appendix 1-1-05 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
<p>The national legislation (Aviation Act and relevant ordinances) will be amended in order to include provisions allowing for the transfer of duties resulting from 83bis agreements between Switzerland and another State, and provisions allowing for the recognition of relevant documents issued by the State of the operator resulting from agreements under Article 83bis between States, parties to Article 83bis Protocol.</p> <p>The relevant revision of the Aviation Act has to be included in the framework of a more global revision, hence it can only be finalized by the end of 2014. In the meantime, the required amendments of the relevant ordinances will be identified and carried out.</p>	FOCA	31 December 2014

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**APPENDIX 3-2-1**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO CIVIL AVIATION ORGANIZATION**

<b>AUDIT FINDING ORG/01</b>		
Please refer to Appendix 1-2-01 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
A draft of a regulation regarding the composition, duties and responsibilities of the FOCA Board has been drafted. In a next step this draft will be reviewed by the Federal Office of Justice. The responsibility for ratification requires further clarification. The new directive will enter into force by 31 March 2011.	Stab	30 June 2011

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**APPENDIX 3-2-2**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO CIVIL AVIATION ORGANIZATION**

<b>AUDIT FINDING ORG/02</b>		
<p>Please refer to Appendix 1-2-02 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.</p>		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
<p>The text of the finding should be modified according to the following proposal: The FOCA has identified a requirement for 44 additional staff to enable FOCA to meet, in an effective and efficient manner, its national and international obligations related to civil aviation safety oversight. In a first step 20 additional posts have been accepted by the Federal Council. These posts have been implemented by the end of 2008. In a second step the remaining 24 posts have to be accepted by the Swiss Parliament. However, these 24 posts have not been approved yet. Recommendation: Switzerland should ensure that all identified 44 posts are implemented in order to meet the short, medium and long-term obligations of the State with respect to civil aviation safety oversight.</p>		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
<p>Twenty positions of the identified staffing needs have already been accepted by the Federal Council and are in place. Of the outstanding 24 positions, 10 positions were accepted by the Federal Council on 20th May 2009 to be created by the end of 2010. The recruitment process will last to March 2011. The Federal Council has also indicated that the establishment of the remaining 14 positions will be approved for the year 2011, subject to the approval by the Parliament.</p>	Stab/RLPE	31 December 2012

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**APPENDIX 3-3**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO PERSONNEL LICENSING AND TRAINING**

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**APPENDIX 3-4-1**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIRCRAFT OPERATIONS CERTIFICATION AND SUPERVISION**

<b>AUDIT FINDING OPS/01</b>		
Please refer to Appendix 1-4-01 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.		
<b>CORRECTIVE ACTION(S) PROPOSED</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
<ul style="list-style-type: none"><li>Acceleration of tarmac access security procedures for designated FOCA inspectors have already been realized right after the audit in spring 2010. Contacts with security and airport personnel has taken place. Waiting times for inspectors could thus be shortened.</li><li>In order to further improve tarmac access FOCA is currently analyzing the feasibility of a concept of immediate uncontrolled access for inspectors. It seems obvious that such a concept would need a thorough security background check on the inspection personnel authorized. Feasibility and time frame for implementation are, however, still open.</li></ul>	SB/LE/SI	30 June 2011

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**APPENDIX 3-4-2**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIRCRAFT OPERATIONS CERTIFICATION AND SUPERVISION**

<b>AUDIT FINDING OPS/02</b>		
Please refer to Appendix 1-4-02 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
<p>Systematic verification of all operators' OMs by FOCA has already taken place until mid-June 2010 right after the audit. The results have shown a total of 8 OMs that could and should be reworded in a more distinctive and clear manner regarding operational control especially with respect to the responsibility and authority of the pilot-in-command.</p> <ul style="list-style-type: none"> <li>• These 8 OMs will be corrected by the respective operators in order to be absolutely clear on operational control.</li> <li>• Mandatory due date for the 8 operators to file their revised OMs with the authority has been fixed by FOCA to end of December 2010.</li> </ul> <p>The corrective action is monitored and tracked in the integrated EMPIC OAS surveillance tool of FOCA.</p>	SBAU	31 December 2010
<p>Guidance material and checklists for initial certification and continuous oversight will be checked to display clearly the recommendation of ICAO with regard to the primacy of safety as well as the responsibilities and authority of the pilot-in-command.</p>	SBAU	30 June 2011

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**APPENDIX 3-4-3**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIRCRAFT OPERATIONS CERTIFICATION AND SUPERVISION**

<b>AUDIT FINDING OPS/03</b>		
<p>Please refer to Appendix 1-4-03 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.</p>		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
<p>Switzerland agrees only partly with the paragraphs of the finding:</p> <p>a) Switzerland does not agree.</p> <ul style="list-style-type: none"> <li>• AFM is part of OM-System; duty to keep OM B updated has been clearly demonstrated by FOCA. Regulation EU-OPS 1037, 1040 g/k, 1050 is addressing also AFM updates.</li> </ul> <p>b) Switzerland does not agree.</p> <ul style="list-style-type: none"> <li>• Duty included in CAME. Obligation to keep CAME up to date has been clearly demonstrated by FOCA. However, regulation EU-OPS is not directly addressing the obligation in terms of FDR servicability/maintenance.</li> </ul> <p>c) Switzerland agrees with the finding.</p> <ul style="list-style-type: none"> <li>• Duty missing in regulation EU-OPS.</li> <li>• FOCA to contact EU/EASA on the matter.</li> </ul> <p>d) Switzerland agrees with the finding.</p> <ul style="list-style-type: none"> <li>• Take-off briefing not contained in regulation EU-OPS.</li> <li>• FOCA to contact EU/EASA on this matter.</li> </ul>		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
<p>Switzerland will continue to apply their national best practice which ensures broad respect of ICAO SARPS (see state comments). However, Switzerland will also work as closely as possible with the EC and EASA to revise the EU-OPS regulations as well as to design the new EASA implementing Rules to ensure that they explicitly require air operators to: a) develop procedures to ensure that the aeroplane flight manual is updated by implementing changes made mandatory or approved by the State of Registry; b) maintain up-to-date and sufficient documentation concerning the flight data recorder parameter allocation, conversion equations, periodic calibration and other serviceability/maintenance information; c) develop a policy and procedures for the flight crew to make routine meteorological reports during en-route and climb-out phases of flight, in addition to the non-routine reports to be made during any phase of the flight; and d) establish a requirement in the operations manual for crew briefings, to include take-off, as well as approach and landing briefings.</p>	SB	30 June 2012

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**APPENDIX 3-4-3 (CONT.)**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIRCRAFT OPERATIONS CERTIFICATION AND SUPERVISION**

<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
In addition, the FOCA should establish procedures for the implementation of requirements for the air operator to maintain up-to-date and sufficient documentation concerning flight data recorder serviceability/maintenance information.		

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**APPENDIX 3-4-4**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIRCRAFT OPERATIONS CERTIFICATION AND SUPERVISION**

<b>AUDIT FINDING OPS/04</b>		
Please refer to Appendix 1-4-04 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
<p>Switzerland does not agree with the finding.</p> <ul style="list-style-type: none"> <li>• The ICAO standard seems unclear with regard to its true meaning and the practical requirements of an acceptable certified true copy and, therefore, under ongoing discussion in ICAO itself.</li> <li>• The current FOCA practice of original AOC extract carrying the true and only declaration/certification of the authority with regard to the authenticity of the AOC covers and implements the goal of the ICAO standard to its full extent and proves to provide even better information and authenticity than a solution that would simply follow the wording of the ICAO standard.</li> <li>• The obligation to carry on board a certified true copy of an article 83bis transfer agreement is contained in the text of FOCA agreements itself. No additional legal requirement is necessary. At least ICAO Circular 295 does not provide for any specific way of implementation of this requirement.</li> <li>• All contact details of the operational management of an operator are always provided in section A (General and Organization) of all OMs on a mandatory bases. Section A of the OM has to be carried on all aircraft.</li> </ul> <p>However, Switzerland will work closely with EC/EASA in order to revise existing regulations / develop new EASA-Part-OPS that fully and most clearly display the requirements of ICAO Annex 6 to the Convention.</p>		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
No corrective action plan was submitted by the State.		

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**APPENDIX 3-5-1**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIRWORTHINESS OF AIRCRAFT**

<b>AUDIT FINDING AIR/01</b>		
Please refer to Appendix 1-5-01 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland largely agrees with the finding of the ICAO Audit team and will make efforts to specify on-the-job training and to update training records. However, Switzerland is convinced that the training plans defined for the airworthiness inspectors are comprehensive.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
Definition of standards / criteria to be fulfilled by experienced senior inspectors. Establishment of a list of experienced senior inspectors empowered to provide on the job training.	Management ST	29 April 2011
Verification / Definition of standards considering OJT for new inspectors as part of the initial training program.	Management ST	29 April 2011
Update of records for on the job training (as part of the initial training program).	Staff of ST sections	31 August 2011
Update of training records of the initial training program.	Staff of ST sections	31 August 2011
Resulting arrangement of the individual training plan for each staff member.	ST section managers	31 January 2012

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**APPENDIX 3-5-2**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIRWORTHINESS OF AIRCRAFT**

<b>AUDIT FINDING AIR/02</b>		
Please refer to Appendix 1-5-02 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO Audit team and is well aware of the fact that at the time being the Standards of Annex 6 relating to operations derived equipment are not fully implemented. Unfortunately Switzerland is due to its international regulatory framework not able to autonomously change that situation. It is obvious that Switzerland and its representatives try to support the EC and the EASA in developing legislation fully implementing the SARPS of annex 6 for EASA - Aircraft, in order to be able to set up a Annex 6 conform regulation for non - EASA - Aircraft, which is in line with the EASA-solution for EASA - Aircraft. The power of Switzerland within the EASA - drafting groups is by far not as strong as the power of a EU-memberstate. Nevertheless Switzerland takes and will take in the next future every opportunity to move EASA / EC legislation in the right direction. In the meantime Switzerland is as well preparing to develop additional executive regulation with regard and in systematic conformity with the relevant EU/EASA Regulation, so as to correct the aforementioned finding.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
The future Implementing Rules for Air Operations by EASA will cover the operations-derived equipment requirements for commercial and non-commercial operations with EASA aircraft as well as the commercial operations with non-EASA aircraft as referred to in Annex II of the Basic Regulation (EC No 216/2008 of the European Parliament and of the Council of 20 February 2008) in (a)(ii), (d) and (h) thereof. The Implementing Rule for Air Operations is expected to be effective by April 2012. The rules for the commercial operations with non-EASA aircraft mentioned above will be developed at a later stage.	EASA	30 April 2012

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### APPENDIX 3-5-3

#### CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND RELATED TO AIRWORTHINESS OF AIRCRAFT

##### AUDIT FINDING AIR/03

Please refer to Appendix 1-5-03 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.

##### STATE'S COMMENTS AND OBSERVATIONS\*

Switzerland agrees with the finding of the ICAO Audit team and is working closely with the European Commission and EASA for the development and promulgation of legislation to establish comprehensive Human Factors requirements related to aircraft maintenance for EASA aircraft.

Following tasks by EASA are relevant to establish comprehensive Human Factors HF requirements;

145.020 - review of the maintenance job-cards (Start in 2013):

145.022 - control of contracted maintenance personnel (On-going):

145.012 - single multiple release (To be completed this year):

MDM.020 - definition of critical system (On-going):

MDM.042 - detection of major configuration differences (To start 2012. Reply to accident investigation recommendation):

MDM.055 - SMS embodiment and new rule structure (Start 3 quarter 2010. European Human Factors Advisory Group EHFAG is conducting a full review of EASA rules, Annex I of the regulation (EC) 2042/2003 (Part M) and Continuing Airworthiness Management Organisation (CAMO) will be aligned with Annex II of the regulation (EC) 2042/2003 (Part 145) in terms of HF for CAT and the concept of "fatigue" may be introduced as part of SMS):

Questionnaire on Human factors (Actions resulting from the questionnaire will be analysed by the Agency using:

An external HF advisory group which has a specific focus group on continuing airworthiness;

An internal HF group;

Data needed to back-up priorities;

Action plan could be available at the next annual conference)

As far as Non-EASA-aircraft are concerned that are involved in commercial air transport (Annex 6 Part I), the EASA rules are analogously applicable due to national rules. In these cases EASA Part-M maintenance programmes are applied as well as for EASA aircrafts (no difference to EASA aircraft).

For Non-EASA-aircraft under Annex 6 Part II (non commercial), the national rule obligates the owner/operator of an aircraft to follow/apply the aircraft manufacturer's (type certificate holder's) maintenance programme/instructions for continuing airworthiness. The maintenance programme of the manufacturer/type certificate holder is acceptable to the State of Registry (FOCA). Due to the fact that in these cases the maintenance programme is not designed by the owner/operator, Human Factors principles are not to be taken into consideration.

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**APPENDIX 3-5-3 (CONT.)**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIRWORTHINESS OF AIRCRAFT**

<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
<p>The EASA plans to address the finding using the following rulemaking task:</p> <p>MDM.047 (alignment to Basic regulation and ICAO requirement for state of operator/ registry for approval of maintenance programme) starting 2010; closing 2011 2nd quarter.</p>	EASA	30 June 2011
<p>The EASA plans to address the finding using the following rulemaking task:</p> <p>MDM.056: Instruction for Continuing Airworthiness. The deliverables are planed for the first quarter 2012</p>	EASA	31 March 2012
<p>The EASA plans to address the finding using the following rulemaking task:</p> <p>MDM.056: Instruction for Continuing Airworthiness. The deliverables are planed for the first quarter 2012.</p>	EASA	31 March 2012
<p>Following discussion at SSCC, EASA plans to produce a “policy statement” to be included in the TOR to be issued in 2010.</p>	EASA	31 December 2010

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**APPENDIX 3-5-4**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIRWORTHINESS OF AIRCRAFT**

<b>AUDIT FINDING AIR/04</b>		
Please refer to Appendix 1-5-04 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO Audit team.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
Switzerland will adopt and use the checklists and planing forms provided by EASA.	STEH	31 October 2010
Switzerland will amend the process HE 42-14 Surveillance of design organisations in accordance with 21 J (DOA) with the following special task: Set a reminder in the Outlook agenda for controlling DOA activities.	STEH	30 June 2011

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## APPENDIX 3-6-1

### CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND RELATED TO AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION

<b>AUDIT FINDING AIG/01</b>		
Please refer to Appendix 1-6-01 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.  Swiss legislation in force does provide for, inter alia by making reference to ICAO documents (Art 15 VFU), a) unhampered access to and control over the scene of the accident and the wreckage; (Art. 14 VFU) b) unhampered access to and control over all relevant material/evidence, including flight recorders; (Art 26b LFG) c) the right to carry out a detailed examination of relevant material/evidence without delay (Art 15 VFU); and d) the right to take statements from witnesses (Art. 26b LFG). Any piece of evidence may be taken into custody by the AAIB as long as needed for examination.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
In a future revision of the mentioned law and ordinance an explicit description of the rights of the investigation authority will be considered.	AAIB	31 December 2011

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**APPENDIX 3-6-2**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION**

<b>AUDIT FINDING AIG/02</b>		
Please refer to Appendix 1-6-02 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.  In accordance with Article 38 of the Chicago Convention, Switzerland has filed a reservation with regard to para 5.12 of Annex 13. All evidence gathered during an aircraft accident investigation must be made available to judicial authorities, if requested. Switzerland emphasizes that furthermore aircraft accident investigation and judicial procedures are well separated as intended by Annex 13. However with regard to "just culture" and a "non punitive reporting" which are widely approved within the aviation community an improvement would be possible.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
Swiss AAIB, if possible together with other aviation stakeholders, will try to convince the judicial authorities to change the laws dealing with the use of evidences in order to improve the aviation safety.	AAIB	31 December 2011

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**APPENDIX 3-6-3**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIRCRAFT ACCIDENT AND INCIDENT INVESTIGATION**

<b>AUDIT FINDING AIG/03</b>		
Please refer to Appendix 1-6-03 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.  At the moment the participation of accredited representatives is mentioned in the ordinance for the aircraft accident investigation (VFU) in general terms. The procedure book of the AAIB lists all the states having rights in accordance with Annex 13 giving in details their rights and duties.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
In a future revision of the ordinance (VFU) a more detailed description of all states having rights in accordance with Annex 13 will be considered.	AAIB	31 December 2011

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**APPENDIX 3-7-1**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIR NAVIGATION SERVICES**

<b>AUDIT FINDING ANS/01</b>		
Please refer to Appendix 1-7-01 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.  The problem is identified and a solution method has been drafted.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
The existing Contingency plans are completed and adopted including major outages of the ATS System in accordance with ICAO Annex 11 by following EUROCONTROL Guidelines for Contingency Planning of ANS.	Airspace Section	30 June 2011

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**APPENDIX 3-7-2**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIR NAVIGATION SERVICES**

<b>AUDIT FINDING ANS/02</b>		
<p>Please refer to Appendix 1-7-02 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.</p>		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
<p>Switzerland agrees with the finding of the ICAO audit team.</p> <p>Support Performance Targets: SILR Support Safety Oversight: SIFS</p>		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
a) The Swiss State Safety Program will define the framework for development and surveillance of safety oversight in the ATS domain. This will be in conjunction with the European ATS regulatory developments.	SRM	30 June 2011
b) Safety Performance metrics will be defined by FOCA for Swiss ATS. Initially, these will be aligned with EU regulatory developments, and will include: 1) SMS Maturity 2) Risk assessment methodology and 3) Just Culture development SMS acceptance is based on ESAAR 3 requirements and Single European Sky regulation applicable in Switzerland.	SRM, SIFS	30 December 2011
c) ANSP SMS surveillance will be conducted based on ESARR 3 criteria and Single European Sky regulation applicable in Switzerland, augmented by FOCA assessment guidance. Surveillance will be integrated in routine oversight action planning.	SRM, SIFS	30 June 2011

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**APPENDIX 3-7-3**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIR NAVIGATION SERVICES**

<b>AUDIT FINDING ANS/03</b>		
<p>Please refer to Appendix 1-7-03 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.</p>		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
<p>Switzerland agrees with the finding of the ICAO audit team.</p> <p>Support Oversight: SIFS SILR: see Eurocontrol's CHAIN Program/ADQ.</p>		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
<p>A preliminary project has been launched in autumn 2010 to establish a concept for the implementation of the ICAO Requirements on data integrity and the Commission regulation (EU) No 73/2010 (ADQ IR) until mid 2011. The implementation project planning will take place after completion to start the implementation program in autumn 2011. After completion of the implementation planning, FOCA will provide it to ICAO including the implementation deadlines. Together with the already running project eTOD on the implementation of the ICAO Annex 15 Amendment 36 Requirements (electronic terrain and obstacle data; according planning to be completed by End 2012) the ICAO data integrity requirements will be fulfilled.</p> <p>It is the goal to establish all relevant processes and legal requirements until mid 2014 and to get all required data compliant until mid 2017 in accordance with Commission Regulation (EU) No 73/2010 and Article 14 thereof which states:</p>	<p>SILR, SIFS</p>	<p>30 June 2017</p>

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**APPENDIX 3-7-3 (CONT.)**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIR NAVIGATION SERVICES**

<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
<p><i>Article 14</i></p> <p><i>Transitional provisions</i></p> <p><i>1. Member States which, prior to the entry into force of this Regulation, have notified a relevant difference to ICAO in accordance with Article 38 of the Chicago Convention, may maintain their national provisions on the subjects listed in Annex XI to this Regulation until 30 June 2014 at the latest.</i></p> <p><i>2. Aeronautical data and aeronautical information published before 1 July 2013 and not amended shall be brought in line with this Regulation by 30 June 2017 at the latest.</i></p> <p>The data integrity requirements of ICAO are such demanding that all countries around the world are lacking behind the schedule. Europe with the ADQ-EC Regulation 73/2010, will fulfill these requirements for all data until 2017. Switzerland is at the leading edge of all countries in Europe for the implementation.</p>		

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**APPENDIX 3-7-4**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIR NAVIGATION SERVICES**

<b>AUDIT FINDING ANS/04</b>		
Please refer to Appendix 1-7-04 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
The division SI has decided to assign 2.8 new FTEs to the section SIFS (subject to the approval by the Parliament). This additional manpower will assure the fulfilment of the required tasks of the section.	SIFS	31 December 2011

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**APPENDIX 3-7-5**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIR NAVIGATION SERVICES**

<b>AUDIT FINDING ANS/05</b>		
Please refer to Appendix 1-7-05 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
SIFS to develop a detailed training programm for its technical staff.	SIFS	30 June 2011
Finish of pilot phase and implementation.	SIFS	30 June 2012

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**APPENDIX 3-7-6**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIR NAVIGATION SERVICES**

<b>AUDIT FINDING ANS/06</b>		
Please refer to Appendix 1-7-06 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
A cartographic audit has already been performed on 22/23 June 2010 (OAS No 5388) right after the ICAO USOAP closing meeting (10 March 2010). Cartographic audits are from now on implemented in the annual oversight programme.	SIFS	31 December 2010
PANS-OPS oversight will be scheduled in the oversight activities as from 2011 on.	SIFS	31 December 2010

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**APPENDIX 3-7-7**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIR NAVIGATION SERVICES**

<b>AUDIT FINDING ANS/07</b>		
Please refer to Appendix 1-7-07 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
Fine tuning of the qualification requirements, including written implementation in the SOAP GUI and assignment list.	SIFS	31 December 2010
Definition of the specific requirements in the areas of AIS, cartography and MET.	SIFS	30 June 2011
Finish of pilot phase.	SIFS	30 June 2012

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**APPENDIX 3-7-8**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AIR NAVIGATION SERVICES**

<b>AUDIT FINDING ANS/08</b>		
Please refer to Appendix 1-7-08 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.  The publication of the map according to skyguide is planned at the end of 2010.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
Publication of the missing En-route chart will take place End 2010.	Airspace Section	30 April 2011

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## APPENDIX 3-8-1

### CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND RELATED TO AERODROMES

<b>AUDIT FINDING AGA/01</b>		
Please refer to Appendix 1-8-01 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.  Sion: Criteria for certification of Sion airport are met. Follow up audit was conducted on 14.-16.4.2010 (FOCA report dated 10.5.2010).  Lugano: New extended deadline for main follow up audit was granted by FOCA after having accepted a formal request by aerodrome operator claiming insufficient organizational readiness. An SMS follow up audit is scheduled for 25.8.2010 (SMS is prioritized due to key role in certification), full follow up audit will be conducted on 2.-6.5.2011.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
Action Nr 1: Sion: Official certificate handover is scheduled for 20.8.2010.	SIAP	20 August 2010
Action Nr 2: Lugano: SMS follow up audit on 25.8.2010.	SIAP	25 August 2010
Action Nr 3: Lugano: Full follow up audit on 2.-6.5.2011.	SIAP	6 May 2011
Action 4: Lugano: Official certificate handover expected for 30.11.2011 (unless audit results not satisfactory).	SIAP	30 November 2011

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## APPENDIX 3-8-2

### CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND RELATED TO AERODROMES

<b>AUDIT FINDING AGA/02</b>		
Please refer to Appendix 1-8-02 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees partially with the finding of the ICAO audit team.		
a) Not Agreed. Based on Swiss legislative framework a slightly different system has put in place, ensuring an equal rigour regarding safety oversight. FOCA safety oversight of infrastructure is conducted in adherence of ICAO documents. According to VIL Art. 9 every project must be reviewed and accepted by FOCA through the process of an aeronautical examination ("Luftfahrtspezifische Prüfung") prior to implementation. Implementation and imposed charges are monitored by FOCA. Because all projects must be submitted to FOCA for aeronautical examination, inspectors are familiar with the current situation at every aerodrome. Therefore, during audits only spot checks are performed. Aerodrome operators must conduct an ICAO Annex 14 SARPs compliance check monitored by FOCA. The results of this process go into the aerodrome safety library and are continuously updated by the aerodrome operator. The safety library is subject to spot checks by FOCA.		
b) Agreed. A formal application form will be created by 30.11.2010 so that the formal application process can be implemented by 30.6.2011.		
c) Agreed. However, the publication process has already been initialized. The status of certification of aerodromes will be published by Skyguide in AIP chapter AD 1.5 on 26.8.2010.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
Action Nr 1: Create formal application form.	SIAP	30 November 2010
Action Nr 2: Publication of status of certification of aerodromes in AIP chapter AD 1.5.	SIAP	26 August 2010

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### APPENDIX 3-8-3

#### CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND RELATED TO AERODROMES

<b>AUDIT FINDING AGA/03</b>		
Please refer to Appendix 1-8-03 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees partially with the finding of the ICAO audit team.  a) Partially agreed. Additional audit checklists will be developed for winter operations, runway friction and safety of works. In doing so, lessons learned from the upcoming recertification audit Geneva airport will be taken into account. Checklists for the inspection and maintenance of visual aids are already existing. Checklists for other fields mentioned above are not required because all subjects are entirely covered by the applied audit questionnaire.  b) Not agreed. Recording is done electronically. Hand notes are kept for later enquiries in special cases only.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
Action Nr 1: Development of additional audit checklists for winter operations, runway friction, safety of works by 31.12.2010. These new checklists will be applied at the full follow up audit at Lugano airport on 3.-5.5.2011.	SIAP	31 December 2010

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## APPENDIX 3-8-4

### CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND RELATED TO AERODROMES

<b>AUDIT FINDING AGA/04</b>		
Please refer to Appendix 1-8-04 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees partially with the finding of the ICAO audit team.  a) Agreed. A formal application process will be implemented for COFA 2 workgroup as well as for the recertification process of all airports.  b) Partially agreed. Based on Swiss legislative framework a slightly different system has put in place, ensuring an equal rigour regarding safety oversight. FOCA safety oversight of infrastructure is conducted along the lines of ICAO documents. A certificate template is already existing, but will be amended in adherence of ICAO Doc 9774.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
Action Nr 1: Implementation of formal application process.	SIAP	30 June 2011
Action Nr 2: Amendment of existing certificate template in adherence of ICAO Doc 9774.	SIAP	30 June 2011

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## APPENDIX 3-8-5

### CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND RELATED TO AERODROMES

<b>AUDIT FINDING AGA/05</b>		
Please refer to Appendix 1-8-05 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland does not agree with the finding of the ICAO audit team.  Guidance material has been developed and provided to the industry as follows: <ul style="list-style-type: none"><li>- For runways with PCN &gt; ACN unrestricted operations are permitted.</li><li>- Runways with PCN &lt; ACN are considered as a hazard and are identified through the SMS hazard identification process as well as through the project HAZID (hazard identification). Identified hazards require a detailed safety assessment including mitigation.</li><li>- Runway construction projects (e.g. new runway, replacement of surface etc) are considered as change with a potential impact on flight operations and as of 1.6.2010 require a detailed safety assessment including mitigation according to FOCA directive AD I-003 (Management of Change).</li><li>- PCN values are published in the AIP.</li></ul> All mentioned processes are overseen by FOCA.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
No corrective action plan was submitted by the State.		

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**APPENDIX 3-8-6**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AERODROMES**

<b>AUDIT FINDING AGA/06</b>		
Please refer to Appendix 1-8-06 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.  Security lighting of fences is not required in Switzerland.		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
Action Nr 1: FOCA/LERI ads the following statement to NASP (National Aviation Security Programme): “[...] security lighting of fences, however, is not required [...]”. The new statement will be: “Gates shall be illuminated by suitable security lighting; security lighting of fences, however, is not required. Fences shall be inspected infrequently to ensure that they are in good condition and have not been tempered with.”	SIAP, LERI, SISE	31 August 2010

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**APPENDIX 3-8-7**

**CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND  
RELATED TO AERODROMES**

<b>AUDIT FINDING AGA/07</b>		
Please refer to Appendix 1-8-07 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
Switzerland agrees with the finding of the ICAO audit team.		
a) Agreed. However, there is an existing FOCA contract with 'Vogelwarte Sempach' dated 30.6.2010 regarding development of regulatory requirements.		
b) Agreed. However, the subject will be integrated in the next revision of the legislation (LFG revision 2).		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
Action Nr 1: Development of regulatory requirements by Vogelwarte Sempach on behalf of FOCA.	SIAP	30 June 2012
Action Nr 2: Draft legislation by 31.12.2012	SIAP, LESA	31 December 2012
Action Nr 3: Legislation enactment by 30.6.2015.	SIAP, LESA	30 June 2015

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## APPENDIX 3-8-8

### CORRECTIVE ACTION PLAN PROPOSED BY SWITZERLAND RELATED TO AERODROMES

<b>AUDIT FINDING AGA/08</b>		
<p>Please refer to Appendix 1-8-08 of this report for the text of the finding and recommendation along with the related protocol questions which should be considered in order to fully address this audit finding.</p>		
<b>STATE'S COMMENTS AND OBSERVATIONS*</b>		
<p>Switzerland does not agree with the finding of the ICAO audit team.</p> <p>Based on Swiss legislative framework a slightly different system has put in place, ensuring an equal rigour regarding safety oversight.</p> <ul style="list-style-type: none"><li>- According to VIL Art. 23a all aspects of certification and operation are audited by FOCA on a regular basis (every 3 years for all aerodromes with airline and charter operations, every 5 years for other aerodromes).</li><li>- According to VIL Art. 9 every project must be reviewed and accepted by FOCA through the process of an aeronautical examination (Luftfahrtspezifische Prüfung) prior to implementation. Implementation and imposed charges are monitored by FOCA.</li><li>- Because all projects must be submitted to FOCA for aeronautical examination, inspectors are familiar with the current situation at every aerodrome. Therefore, during audits only spot checks are performed.</li><li>- Every year a formal comprehensive aerodrome surveillance programme is developed based on SRM annual safety reports and safety performance and surveillance summaries.</li></ul>		
<b>CORRECTIVE ACTION(S) PROPOSED*</b>	<b>ACTION OFFICE</b>	<b>ESTIMATED IMPLEMENTATION DATE(S)</b>
No corrective action plan was submitted by the State.		

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