

ICAO Universal Safety Oversight Audit Programme

**SUMMARY REPORT
ON THE SAFETY OVERSIGHT
AUDIT FOLLOW-UP
OF THE
FEDERAL OFFICE FOR CIVIL AVIATION
OF
SWITZERLAND**

(Berne, 16 to 17 October 2003)



International Civil Aviation Organization



ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME

Summary Report on the Safety Oversight Audit Follow-up of the Federal Office for Civil Aviation of Switzerland

(Berne, 16 to 17 October 2003)

1. INTRODUCTION

1.1 Background

1.1.1 The Federal Office for Civil Aviation (FOCA) of Switzerland was audited from 1 to 8 November 2000 by an ICAO safety oversight audit team in accordance with the Memorandum of Understanding (MOU) agreed to on 10 August 2000 between Switzerland and ICAO. The audit was carried out pursuant to Assembly Resolution A32-11, with the objective of ascertaining the safety oversight capability of FOCA of Switzerland and to ensure that it was in conformity with ICAO Standards and Recommended Practices (SARPs), as contained in Annexes 1, 6 and 8 to the *Convention on International Civil Aviation* (Chicago Convention) and related provisions in other Annexes, guidance material and relevant safety-related practices in general use in the aviation industry.

1.1.2 On 12 January 2001, Switzerland submitted a corrective action plan addressing all the findings and recommendations contained in the audit interim report and also containing comments and clarifications of some of the items mentioned in the audit interim report. The action plan submitted was reviewed by the Safety Oversight Audit (SOA) Section and was found to be satisfactory although clarification was sought with respect to the action proposed for one of the findings related to operations of aircraft. Such clarification was provided by FOCA on 12 April 2001. The action plan and comments provided were taken into consideration in the preparation of the final and summary reports. The summary report was distributed to all Contracting States by State letter AN 19/1-01/99 in October 2001.

1.2 Objectives and activities of the audit follow-up mission

The audit follow-up mission was conducted in accordance with Article 18 of the MOU and the ICAO *Safety Oversight Audit Manual* (Doc 9735). The objective of this mission was to validate the implementation of the corrective action plan and to ascertain the status of the progress made, which enables ICAO to update the information contained in the audit findings and differences database (AFDD) and also to inform other Contracting States on the status of the safety oversight system of Switzerland through a non-confidential summary report. It is important to appreciate in this respect that audit follow-up missions are **not** audits and are not designed to evaluate all aspects of a State's aviation framework or safety oversight system.

2. CIVIL AVIATION ACTIVITIES IN SWITZERLAND

At the time of the audit follow-up mission, civil aviation activities in Switzerland included:

a)	number of technical staff employed by the organization at Headquarters	81
b)	number of regional offices	0
c)	number of technical staff employed at regional offices	0
d)	number of active pilot licences	13 857
e)	number of active flight crew licences other than pilot licences (flight engineer and flight navigator)	16
f)	number of aviation training establishments	45
g)	number of active licences other than flight crew licences	2 696
h)	number of commercial air transport operators	129
i)	number of air operator certificates (AOCs) issued	52
j)	number of aircraft operations inspectors	18
k)	number of aircraft registered in Switzerland	2 248
l)	number of currently valid certificates of airworthiness issued	2 017
m)	number of approved maintenance organizations (AMOs)	89
n)	number of non-approved aircraft maintenance organizations	0
o)	number of design organizations	2
p)	number of aircraft manufacturing organizations	1
q)	number of aircraft parts or equipment manufacturing organizations	21
r)	number of aircraft type certificates issued	13
s)	number of type certificates other than aircraft issued	0
t)	number of aircraft airworthiness inspectors	23

3. EXECUTIVE SUMMARY

3.1 Switzerland continues for the time being to harmonize its regulatory framework through the Joint Aviation Requirements (JAR) and related guidelines; nevertheless, future adaptations which will become necessary due to the recent creation of the European Aviation Safety Agency (EASA) by the European Community and the planned membership of Switzerland in this institution have to be taken into consideration. However, this confines the areas of implementation of ICAO SARPs and mainly new amendments in fields where harmonized European rules apply to a large extent to those covered by JAR. Some ICAO provisions concerning personnel licensing and aircraft operations activities not yet addressed

by JAR have not been fully implemented by Switzerland. A future accession of Switzerland to EASA which has the authority to issue European regulations binding to all States within its jurisdiction will be of major relevance for the process of implementation of ICAO SARPs as the harmonized aviation safety regulations of EASA will become applicable in Switzerland. The harmonization of Swiss regulations with relevant ICAO SARPs will to a large extent be dependent of the future regulations established within the EASA framework and the involvement of FOCA in EASA activities.

3.2 FOCA has made significant improvement in the areas of organization and staff recruitment. FOCA has modified its organizational structure during the first quarter of 2001, and the new process-oriented organization provides for a clear separation among each area of responsibility. In the effort to enhance its effectiveness, FOCA developed a computerized management system which provides for all relevant information and guidance material in support of the regulations and ensures standardization in the conduct of certification and oversight activities. All staff of the organization has access to the controlled information database system. The Government has allocated additional funding which secures the retention of the newly recruited staff until 2005, and at the time of the audit follow-up mission, recruited inspectors were receiving indoctrination and specialized training in the areas relevant to their activities. In addition, a voluntary safety review of aviation within Switzerland had been commissioned by the Government whereby a report dated 30 June 2003 provided for a number of recommendations and potential areas of improvement.

3.3 Concerning personnel licensing matters, FOCA has also made good progress by improving its licensing system. The Aeromedical Section has been reorganized and reinforced in connection with the implementation of JAR-FCL 3 provisions. New organization and distribution of tasks have been established, and application forms for medical examinations as well as for validation and conversion of foreign licences have been introduced. However, FOCA has issued forty-two airline transport pilot licences (ATPLs) — helicopter without sufficient legal basis as Swiss regulations applicable to flight crew licensing do not contain requirements for ATPL — helicopter regarding experience, skills, age, theoretical examinations and practical tests, proficiency checks, etc.

3.4 FOCA has made significant progress in the implementation of its action plan relating to aircraft operations. The certification and surveillance of air operators in Switzerland continues to be based on JAR-OPS 1 and only a few small air taxi operators are still regulated by Ordinance 748.127.1. FOCA has recently recruited additional operations inspectors but is still facing a shortage of expertise due to an insufficient number of flight operations inspectors type-rated on large types of aircraft used by Swiss operators. FOCA has established and is carrying out a surveillance plan. However, it is still missing a fully established surveillance policy specifying inspections to be carried out including their periodicity, as provided for in Chapter 9 of ICAO Doc 8335. In addition, the surveillance programme needs to be reinforced in areas relating to flight and cabin crew proficiency in order to include a sufficient number of in-flight inspections covering sensitive areas for flight safety such as assessment of flight and cabin crew training, crew proficiency and coordination, air operator operations facilities, and support provided to flight crew by operational control.

3.5 Significant progress has been made in the field of airworthiness since the ICAO audit of 2000. FOCA has implemented all of the ICAO airworthiness recommendations. Implementation of the JAR as State regulations is in the completion stage. Oversight capabilities have been increased and all records of surveillance and inspection reviewed were found satisfactory. FOCA has also established a computerized management system which provides for all the required documentation and checklists to support FOCA's

activities. The system serves as an implementation tool and provides technical personnel with guidance procedures for the accomplishment of their tasks. Additional technical staff was recruited in the field of airworthiness, and FOCA maintains a list of external experts who may assist in the review of engineering data. However, most of the additional airworthiness and engineering staff are recruited under temporary contract valid until 2005, and several of them report to FOCA on a demand basis. FOCA should re-assess its staff requirements in consideration of the upcoming workload which will be generated under the newly implemented continued airworthiness oversight requirements with the goal of maintaining established frequency and follow-up time frames.

4. RESULTS OF THE AUDIT FOLLOW-UP MISSION

4.1 Primary aviation legislation and civil aviation regulations

- 4.1.1 a) **Action proposed by State.** Concerning the harmonization of Swiss civil aviation regulations applicable to personnel licensing, aircraft operations and airworthiness with relevant provisions of the Chicago Convention, FOCA indicated in its action plan that it would conduct a comprehensive review of its civil aviation regulations to ensure compliance with ICAO Annexes in parallel with the process of implementing the remaining JAR provisions. Any differences would be notified to ICAO before the end of December 2001.
- b) **Validation of action proposed.** FOCA continues to introduce JAR and related procedures and guidelines in the areas of personnel licensing, operations, maintenance and airworthiness of aircraft in order to harmonize its regulations with ICAO Annexes 1, 6 and 8. However, some ICAO provisions concerning personnel licensing and aircraft operations activities not yet addressed by JAR have not been adequately implemented by Switzerland. Switzerland continues for the time being to harmonize its regulatory framework through the Joint Aviation Requirements (JAR) and related guidelines; nevertheless, future adaptations which will become necessary due to the recent creation of the European Aviation Safety Agency (EASA) by the European Community and the planned membership of Switzerland in this institution have to be taken into consideration. However, this confines the areas of implementation of ICAO SARPs and mainly new amendments in fields where harmonized European rules apply to a large extent to those covered by JAR. Some ICAO provisions concerning personnel licensing and aircraft operations activities not yet addressed by JAR have not been fully implemented by Switzerland. A future accession of Switzerland to EASA which has the authority to issue European regulations binding to all States within its jurisdiction will be of major relevance for the process of implementation of ICAO SARPs as the harmonized aviation safety regulations of EASA will become applicable in Switzerland. The harmonization of Swiss regulations with relevant ICAO SARPs will to a large extent be dependent of the future regulations established within the EASA framework and the involvement of FOCA in EASA activities. FOCA expects to comply with the ICAO recommendation by January 2005. The ICAO recommendation remains open.

- 4.1.2 a) **Action proposed by State.** With respect to Article 83 *bis* of the Chicago Convention, and the revision of the Swiss legislative framework to enable the transfer and acceptance of the State's responsibilities pertaining to Articles 12, 30, 31 and 32(a) of the Convention, and to recognize the validity of certificates of airworthiness and crew licences issued or validated by the State of the Operator in ICAO guidelines on the implementation of Article 83 *bis*, FOCA indicated that this has been already fully implemented in Swiss legislation.
- b) **Validation of action proposed.** Switzerland ratified Article 83 *bis* of the Chicago Convention, which entered into force on 20 June 1997, and has already entered into agreements with other States parties to Article 83 *bis*. Although Article 6 of *Aviation Law 748* of 1948 allows FOCA to enter into cooperative arrangements with other States, the Swiss legislative framework, practices and procedures need to be revised to clearly ensure the appropriate transfer and the acceptance of Switzerland responsibilities pertaining to Articles 12, 30, 31 and 32(a) of the Convention, and also to recognize personnel licences and certificates of airworthiness issued by the State of the Operator, instead of the State of Registry, as could be the case when an agreement under Article 83 *bis* has been agreed upon between two States parties of Article 83 *bis*. Furthermore, FOCA is in the process of finalizing relevant procedures manuals and established processes to take advantage of the Article 83 *bis* scheme and to establish a mechanism for the assessment of another State's oversight capabilities with regard to the responsibilities to be transferred. The ICAO recommendation remains open.

Note.— Subsequent to the audit follow-up mission, FOCA submitted an update on 26 January 2004 indicating that it considers Article 83 bis of the Chicago Convention as implemented in Swiss legislation. Article 3b of the Federal Aviation Law (748.0) and Article 103, paragraphs 1e and 3 of the Ordinance on Aviation (748.01) in conjunction with Article 6a of the Federal Aviation Law provide a sufficient basis to conclude 83bis arrangements with other States in order to transfer responsibilities. The completion of the relevant procedures manuals and established processes to take full advantage of the Article 83bis scheme is on its way and should be finalized during this year. Any necessary legal fine tuning will be conducted as necessary in a future revision of the respective regulations.

4.2 **Organization of civil aviation**

- 4.2.1 a) **Action proposed by State.** With respect to the recommendation that additional staff be recruited for the licensing, operations and airworthiness sections to ensure that the functions and tasks pertaining to the certification, approval and surveillance of personnel, operators and maintenance organizations are adequately covered, FOCA indicated that it has addressed a letter to the Secretary General of the Department of Environment, Transport, Energy and Communication requesting a budgetary increase. The new organization of FOCA, to be effective on 1 January 2001, is expected to improve the staffing situation. It is expected that by 2004, all safety-related processes dealing with the technical aspects of civil aviation would be

integrated in a new organization under the Department of Environment, Transport, Energy and Communication. This new organization would fully cover its costs by generated fees and is therefore expected to be able to employ as many staff as needed for the fulfilment of its tasks.

- b) **Validation of action proposed.** FOCA has made progress with respect to the ICAO recommendation, and additional technical staff was recruited. FOCA has reviewed its organizational structure and a new process-oriented organization has been settled in seven Process sectors reporting directly to the Deputy Director. Process sectors are divided as follows: Process Air Transport Companies, responsible for AOC holders and commercial air transport; Process Aeronautical Organizations, responsible for JAR-145 maintenance organizations, production organizations, maintenance personnel licensing in accordance with JAR-66 and national regulation, and JAR-147 maintenance training organizations; Process Type Certification, responsible for the type certification and JAR-21 and design organizations approved under Swiss regulation; Process Airworthiness and Registry, responsible for aircraft issued with a permit to fly; and Process Flight Training and Licences, responsible for the maintenance support arrangements of helicopter AOC holders. FOCA requested and received additional financial resources which would increase recruitment until year 2005. Records available indicated that additional staff has been added in several divisions of the organization, namely seven in operations, five in airworthiness and three in personnel licensing. However, several of the new staff is recruited under a specific contract agreement valid only until 2005. Other recruits supply only 50% of their time to FOCA. In addition, FOCA still relies on external expertise to assist in the preliminary review and recommendations in the field of certification and engineering. FOCA expects to continue the recruitment of staff which depends on future financial allocated resources. FOCA expects to comply with the ICAO recommendation by January 2005. The ICAO recommendation remains open.

Note.— Subsequent to the audit follow-up mission, FOCA submitted an update on 26 January 2004 indicating that it has conducted a thorough review of its current organization and tasks in order to further improve its capability to provide an effective surveillance on aviation safety in Switzerland. FOCA has applied for the necessary financial resources in order to recruit sixty-five additional personnel units on a permanent basis. If the additional financial resources and staff for FOCA will be granted by the competent bodies, quite a big number of the expected new staff is intended to be recruited for tasks where ICAO identified lack of resources and surveillance. It has, nevertheless, to be noticed that the new organization of FOCA is also under consideration on the level of the Department of Environment, Transport, Energy and Communications and is therefore not entirely dependent from FOCA only. It is planned that the new organization with the additional staff should become operational at the beginning of 2005. As from that time FOCA expects to strongly improve the effectiveness and quality of all its surveillance and policy tasks, covering the fields where ICAO identified deficiencies and lack of implementation of SARPs.

4.3 Personnel licensing and training

- 4.3.1 a) **Action proposed by State.** With respect to requiring designated medical examiners to submit detailed results of medical examinations as required by paragraph 1.2.4.6 of Annex 1, and establishing a system to receive and assess medical reports, FOCA indicated in its action plan that with the implementation of JAR-FCL 3 by 31 December 2005, this requirement would be fulfilled. In the interim, a difference would be filed with ICAO before the end of June 2001, noting that a control system is in place to spot check the activities of the medical examiners.
- b) **Validation of action proposed.** Concerning the aviation medicine matters, the Aeromedical Section has been reorganized and reinforced in connection with the implementation of JAR-FCL 3 provisions, to carry out the certification and surveillance of the aviation medical examiners (AMEs) and related activities. FOCA employs two aviation medicine doctors as medical officers, assisted by a secretariat staff. The section has also been adequately equipped and all files are organized and stored in secured cabinets. The JAR application form for medical examinations has been introduced and is systematically used for the medical assessment of licence applicants and returned to the Aeromedical Section. All medical applications and reports issued by the AMEs are processed by the medical officers and stored in the Aeromedical Section facilities. The application form requires the declaration and signature of the applicant. After the medical assessment of an applicant, the AME sends the application form signed by the applicant and a report including the medical results. The AME keeps the medical results in a confidential and secured file, except when the applicant is not fit according to the established standards. In that case, the report is sent to the Aeromedical Section for additional instructions. The ICAO recommendation has been complied with.
- 4.3.2 a) **Action proposed by State.** With respect to the publication in the Aeronautical Information Publication (AIP) of information regarding requirements and procedures for conversion or validation of foreign licences, FOCA indicated in its action plan that this would be dealt with by the introduction of JAR-FCL. FOCA also indicated that, in the meantime, general information about validation is already available on the FOCA web page. For information concerning flying activities not covered by JAR, such as helicopter, glider and balloon, a special directive would be published in an aeronautical information circular (AIC) by the first quarter of next year and available on the FOCA web page and in hard copy form.
- b) **Validation of action proposed.** As part of the implementation of JAR-FCL 1 and 3, FOCA has reviewed the requirements for validation and conversion of foreign licences. Related procedures have been revised and application forms are now available on the FOCA web site for all licences. The ICAO recommendation has been complied with.

- 4.3.3 a) **Action proposed by State.** With respect to reviewing the licensing regulations to track errors and inconsistencies which could be generated with the implementation of the JAR, particularly with respect to the helicopter pilots licensing system and concordance between JAR-FCL 3 and Ordinance 748.222.5, FOCA indicated in its action plan that the ordinance would be revised as necessary before the end of December 2002. In addition, with respect to establishing a time frame for the implementation of JAR-FCL 2, FOCA indicated that it would provide, six months prior to implementation, adequate notification by publication in the national AIP and by way of a notice to airmen (NOTAM) in an aeronautical information circular (AIC).
- b) **Validation of action proposed.** FOCA reviewed personnel licensing regulations to track errors and inconsistencies, and some corrections have been achieved with the implementation of JAR-FCL 3. Helicopter pilots licensing aspects are still governed by Swiss Regulation 748.222.1 due to the delay of publication of JAR-FCL 2. However, this ordinance has not kept pace with relevant ICAO Annex 1 provisions, and Ordinance 748.222.5 concerning aviation medicine aspects has not been revised. FOCA expects to comply with the ICAO recommendation by 31 January 2005. The ICAO recommendation remains open.

Note.— Subsequent to the audit follow-up mission, FOCA submitted an update on 26 January 2004 indicating that since the ICAO audit follow-up mission in October 2003, preparatory work for the implementation of JAR-FCL 2 has been started and a mandate was given to an external expert office in order to support this process. ICAO compliance and a proper legal basis for the issuance of ATPL helicopter licences is envisaged as soon as possible. With the expected new staff as from the beginning of 2005, further efforts shall be taken in order to fully eliminate the remaining lack of implementation of ICAO Annex 1 provisions as well as the remaining inconsistencies of the licensing regulations to JAR-FCL 3.

- 4.3.4 a) **Action proposed by State.** With respect to the issuance of the ATPL — helicopter, FOCA indicated in its action plan that it considers that Article 6(a) of the Ordinance on Flight Crew Licensing (SR 748.222.1) provides a sufficient legal basis for the issuance of this licence. Once JAR-FCL 2 is implemented, Switzerland would have an explicit detailed regulatory foundation for this licence.
- b) **Validation of action proposed.** The Swiss regulations applicable to flight crew licensing are contained in Swiss Regulation 748.222.1 (last revised on 13 June 2000). Articles 129 to 140 contain requirements concerning the commercial pilot licence (CPL) — helicopter, including instrument rating. There is no other provisions setting the requirements of the ATPL — helicopter regarding the experience, skills, age, theoretical examinations and practical tests, proficiency checks, etc. FOCA has issued forty-two ATPLs — helicopter based on an exemption to the above-mentioned ordinance 748.222.1, considering that Article 6(a) of the ordinance provides sufficient legal basis for the issuance of this licence. This article specifies that FOCA may give exemptions under certain justified circumstances but

it was agreed during the ICAO audit follow-up mission that it does not provide sufficient legal basis to issue a new licence not addressed by Swiss regulations. FOCA expects to comply with the ICAO recommendation by 31 January 2005. The ICAO recommendation remains open.

Note.— Subsequent to the audit follow-up mission, FOCA submitted an update on 26 January 2004 indicating that since the ICAO audit follow-up mission in October 2003, preparatory work for the implementation of JAR-FCL 2 has been started and a mandate was given to an external expert office in order to support this process. ICAO compliance and a proper legal basis for the issuance of ATPL helicopter licences is envisaged as soon as possible. With the expected new staff as from the beginning of 2005, further efforts shall be taken in order to fully eliminate the remaining lack of implementation of ICAO Annex 1 provisions as well as the remaining inconsistencies of the licensing regulations to JAR-FCL 3.

- 4.3.5 a) **Action proposed by State.** Concerning the recruitment of additional staff to support licensing activities for the implementation of JAR-FCL, FOCA indicated that it has addressed a letter to the Secretary General of the Department of Environment, Transport, Energy and Communication requesting a budgetary increase. The new organization of FOCA, to be effective on 1 January 2001, is expected to improve the staffing situation.
- b) **Validation of action proposed.** With the recent reorganization of FOCA and the introduction of the new process-oriented organization, additional staff has been recruited and the workload of staff assigned to the Licensing Section has been reduced. The ICAO recommendation has been complied with.

4.4 **Aircraft operations certification and supervision**

- 4.4.1 a) **Action proposed by State.** With respect to the establishment of a comprehensive surveillance system of commercial air transport operators, FOCA indicated that it would establish an annual schedule for the surveillance of Swiss operators before 31 October 2001. It would request additional Government funds to recruit more operations inspectors for this purpose starting 31 December 2001. In addition, a training programme would be introduced for operations inspectors starting 31 October 2001 to ensure their qualifications for auditing activities.
- b) **Validation of action proposed.** The certification and surveillance of air operators in Switzerland is based on JAR-OPS 1 and Ordinance 748.127.1. FOCA has established an annual audit plan of all AOC holders and recently recruited additional operations inspectors. However, technical qualifications and type ratings of the newly recruited operations inspectors do not cover all types of aircraft used by Swiss operators and their operations. The surveillance programme of large operators is still missing a surveillance policy, in application of ICAO Doc 8335, Chapter 9, specifying the list of inspections to be carried out including their periodicity, the number of inspections to be performed yearly by FOCA, and the part which could

be delegated to the AOC holder. In addition, the conditions and criteria for the selection and designation of operations inspectors responsible for conducting in-flight inspections need to be specified. The surveillance programme also needs to be re-enforced in areas relating to flight safety, especially flight and cabin crew proficiency, and to include a sufficient number of in-flight inspections covering areas such as in-flight procedures, facilities and equipment provided to the flight crew, support provided by operational control, provisions made for ground handling, selection of en-route and airport facilities used for alternate operations, air operator operations facilities, crew scheduling, planning and dispatch, and assessment of individuals files to ensure that the crew training programme is carried out adequately. FOCA does not have a formal procedure for the delegation of any of its inspection or supervision responsibilities to designated inspectors or check airmen, although informal assistance is provided by representatives from certificated air operators. Furthermore, FOCA has not clearly established the duties and responsibilities of these designees nor is there a mechanism used to supervise their activities. The ICAO recommendation remains open.

Note.— Subsequent to the audit follow-up mission, FOCA submitted an update on 26 January 2004 indicating that it has established a surveillance schedule and policy which, due to limited resources, is focussing/concentrating the surveillance tasks and inspections on relevant safety issues that are assessed and identified on a regular basis. Chapter 9 of Doc 8335 is therefore at least partly implemented in Switzerland. In addition, there is also a systematic implementation of quality management systems to all JAR-OPS operators. These quality systems of the operators are surveyed by FOCA and are a part of FOCA's policy to delegate some of its inspection and supervision tasks. With the expected new staff as from beginning of 2005, efforts to further improve the surveillance and inspections of air operators in accordance with the criteria reflected in Chapter 9 of ICAO Doc 8335 shall be initiated.

- 4.4.2 a) **Action proposed by State.** With respect to the amendment of all regulations applicable to aircraft operations to ensure their compliance with ICAO Annex 6 provisions, FOCA indicated that, although Ordinance 748.127.1 on the operational rules in commercial air transport has not kept pace with Annex 6, it considers that Ordinance VJAR-OPS 748.127.8, which entered into force on 1 November 1997 regarding the implementation of JAR-OPS 1 into Swiss law, sufficiently implements the provisions of Annex 6. FOCA indicated that all major operators are holders of an AOC issued in accordance with VJAR-OPS but that there still exists about forty-four air taxi operators not certified according to this ordinance. These remaining operators would be re-certified according to VJAR-OPS 1 before the end of December 2002. JAR-OPS 2, 3 and 4 are expected to be implemented in Swiss law by December 2002.
- b) **Validation of action proposed.** Regulations applicable to operations of aircraft in Switzerland are still a mix between JAR-OPS 1 and Ordinance 748-127.1. All large operators authorized for international operations are certified according to JAR-OPS

1 and only a few small air taxi operators are regulated by Ordinance 748.127.1. However, Ordinance 748.127.1 has not kept pace with Annex 6 provisions and not all of the recent amendments to Annex 6 have been implemented. The ICAO recommendation remains open.

Note.— Subsequent to the audit follow-up mission, FOCA submitted an update on 26 January 2004 indicating that full compliance to Annex 6, Parts I and III is envisaged as soon as possible and preparatory work for the implementation of JAR-OPS 3 is on the way.

- 4.4.3 a) **Action proposed by State.** With respect to establishing regulations applicable to international general aviation operations to implement the Standards of Annex 6, Part II, FOCA indicated in its action plan that this would be accomplished with the implementation of JAR-OPS 2 and 4 into Swiss law before the end of December 2002. Differences would be notified to ICAO before the end of July 2001 and significant differences published in the AIP and by NOTAM in an AIC if needed.
- b) **Validation of action proposed.** Switzerland has not yet implemented regulations applicable to international general aviation operations in conformance with ICAO Annex 6, Part II. Some general provisions included in Ordinance 748.127.1 could be used in areas of aircraft performance or responsibility of the pilot-in-command but they do not address all SARPs, areas and fields of applicability of ICAO Annex 6, Part II. The ICAO recommendation remains open.

Note.— Subsequent to the audit follow-up mission, FOCA submitted an update on 26 January 2004 indicating that efforts to reach compliance with Annex 6, Part II and to introduce the respective regulations into Swiss law shall be initiated as soon as possible. Nevertheless, it has to be stated that Switzerland is dependent on the respective developments within Europe (introduction of JAR-FCL 2) and therefore considers a specific implementation schedule as difficult to provide at this stage. Differences of the existing national regulations introducing partly Annex 6, Part II will be notified to ICAO as soon as the process to identify them is finalized.

4.5 **Airworthiness of aircraft**

- 4.5.1 a) **Action proposed by State.** Concerning the inspectors' identification credential to give right of access to inspect, FOCA indicated in its action plan that it would produce a supplementary credential issued to inspectors before the end of June 2001 which contains a reference to the legal status of the inspector.
- b) **Validation of action proposed.** FOCA has issued an inspector credential card entitled "Civil Aviation Safety Inspector Certificate" to those airworthiness and operations staff who inspect aircraft and facilities. During the ICAO audit follow-up mission, the samples of credential were reviewed and found satisfactory. The credential card gives the holder the right to inspect in accordance with the *Air*

Navigation Act, Article 3. In addition, inspectors have the right to detain aircraft under authorization by a “Letter of Accreditation” duly signed by the Director of FOCA in accordance with the *Swiss Aviation Act* provisions. Accreditations of airworthiness and dangerous goods inspectors were reviewed and found satisfactory. The ICAO recommendation has been complied with.

- 4.5.2
- a) **Action proposed by State.** With respect to the development of an inspector’s handbook, FOCA indicated in its action plan that existing written procedures would be completed and integrated into an inspector’s handbook before 31 December 2001. Uniformity would be assured by the future FOCA quality manager, a function which would be created in the framework of the FOCA reorganization.
 - b) **Validation of action proposed.** FOCA has established an integrated management system on their Intranet entitled “FOCA Management System”. The application provides information on FOCA, including all information associated with an inspector’s handbook. During the ICAO audit follow-up review, it was possible to access the electronic system which contained hyperlinks to applicable regulations and relevant JAR, checklists, forms and letters. Airworthiness inspectors also use FOCA checklists and FOCA/JAA forms to record their investigative actions. Procedure LV 3-11-1A-120 entitled “Issuance of Maintenance System Approval Statement (MSAS)” was sampled to verify the process of JAR-OPS 1, Sub-part M on audits. Records of the audit of an AOC holder (JAA Form 13) were examined for audit content, audit reporting and audit closure and were confirmed as satisfactory. The ICAO recommendation has been complied with.
- 4.5.3
- a) **Action proposed by State.** Concerning the review of the organization to consolidate and distribute the responsibilities related to airworthiness of aircraft among the three sections of the Aeronautical Material Division, FOCA indicated in its action plan that the planned reorganization would ensure that the interface between type certification and production oversight is clearly defined and that dedicated internal procedures, which were being reviewed, would be completed by 1 January 2001.
 - b) **Validation of action proposed.** As stated in its action plan, the structure of FOCA has been reorganized and the revised organizational chart has been published within the FOCA Management System (inspector’s handbook) which is available on the FOCA Intranet. Airworthiness inspectors’ responsibilities are divided among the following departments: Process Air Transport Companies, Process Aeronautical Organizations, Process Type Certification, Process Airworthiness and Registry, and Process Flight Training and Licences. During the ICAO audit follow-up mission, it was verified that the Heads of these Departments were aware of the extent of their responsibilities, and that there were no overlapping responsibilities. The annual audit programmes for 2002 and 2003 were reviewed to verify that audits had been conducted reasonably in accordance with the planned dates. The ICAO recommendation has been complied with.

- 4.5.4 a) **Action proposed by State.** With respect to increasing the number of staff necessary to ensure that assigned safety oversight, design and production inspections and audits are completed within required time limits, FOCA indicated in its action plan that it has addressed a letter to the Secretary General of the Department of Environment, Transport, Energy and Communication requesting a budgetary increase. The new organization of FOCA, to be effective 1 January 2001, is expected to improve the staffing situation. It is expected that by 2004, all safety-related processes dealing with the technical aspects of civil aviation would be integrated in a new organization under the Department of Environment, Transport, Energy and Communication. This new organization would fully cover its costs by fees generated and is therefore expected to be able to employ as many staff as needed for the fulfilment of its tasks.
- b) **Validation of action proposed.** Since the ICAO audit, FOCA has received additional financial resources from the Government of Switzerland to secure employment of additional staff. A number of staff is currently employed on a contract basis until 31 December 2005, with the objective for FOCA to review the future establishment of the number of inspectors required to implement the applicable regulations, JAR or EASA requirements. The ICAO audit follow-up team noted that the actual trend is that airworthiness inspectors remain with FOCA for an average of three years and a half which requires continued indoctrination and on-the-job training, increasing the workload assigned to regular technical staff. A review of the following activities was carried out to verify the adequacy of manpower: oversight of maintenance organizations approved under JAR-145, planned audit programme completion of audits and follow-up closure, AOC holders JAR-OPS 1, Sub-part M — *Maintenance Support Arrangements* including completion of audits and closure of corrective actions. The ICAO recommendation has been complied with.
- 4.5.5 a) **Action proposed by State.** With respect to the recommendation that a legal basis be established for the designation of engineers from industry, along with procedures to ensure oversight of the designees, FOCA indicated that, in the future, supervision of aerotechnical matters would be centralized in the Institute of Technical Safety. The delegation of technical assignments to third parties, including specific procedures and oversight of designated engineers, would therefore be regulated by a particular law on technical security, to be established before the end of December 2004. In the meantime, FOCA would issue adequate guidance material before 31 December 2001.
- b) **Validation of action proposed.** FOCA had elected not to continue with the initial corrective action as proposed to ICAO on 12 January 2001, according to which they had previously nominated the Institute of Technical Safety for the oversight of designated engineers. FOCA advised that the previous policy in respect of delegating functions to nominated persons outside of FOCA was superseded by a process of allocation of on-demand assistance to perform specific initial evaluation and review activities. The official approval responsibilities remain with FOCA as

the authority. These procedures have been published in the inspector's handbook which is available on the Intranet for review. FOCA maintains a list of experts under contract with the organization (either retired surveyors or persons already known to FOCA). The ICAO recommendation has been complied with.

- 4.5.6
- a) **Action proposed by State.** With respect to ensuring that when a permit to fly is issued, the owner or operator is informed that it is only valid in Swiss airspace and that permission to overfly another State must be obtained from that State, FOCA indicated in its action plan that Internal Procedure F 422 has been adopted in draft form and all concerned inspectors briefed accordingly. This procedure would be formalized by 31 December 2001. External Order TM-R 02.001-40 would also be amended to reflect this requirement before 30 June 2001.
 - b) **Validation of action proposed.** With regard to the permit to fly applicable to commercial air transport aircraft, the certificate of airworthiness is no longer valid. Procedure LT-422 has been revised by FOCA to include the following statement: "This restricted certificate of airworthiness does not constitute an authorization to use foreign airspace. Such authorization has to be obtained from the appropriate authorities". An example of a restricted certificate of airworthiness issued was sampled, for which it was noted that Switzerland does not issue any documents entitled "permits to fly"; they issue "provisional airworthiness certificates". A provisional airworthiness certificate issued on 30 October 2002 was examined and included a statement that the commander would have to seek the permission of the authorities of the countries the aircraft would transit through. FOCA advised that it was in the process of changing its current practices to issue a document bearing the title "permit to fly", and that LT-422 would be circulated to industry. The ICAO recommendation has been complied with.

5. UPDATE ON DEPARTURES FROM ICAO SARPs

During the audit follow-up mission, an updated list on the status of implementation and differences existing between the national regulations and Annexes 1, 6 and 8 SARPs and/or SARPs not implemented was not provided to the audit follow-up team. Nevertheless, FOCA provided ICAO with such a list at an earlier stage and is in the process of supplementing it. As such, Switzerland is urged to complete and update the review of its national legislation and regulations and to notify ICAO of any additional identified differences as required under Article 38 of the Chicago Convention.

6. AUDIT FINDINGS AND DIFFERENCES DATABASE (AFDD)

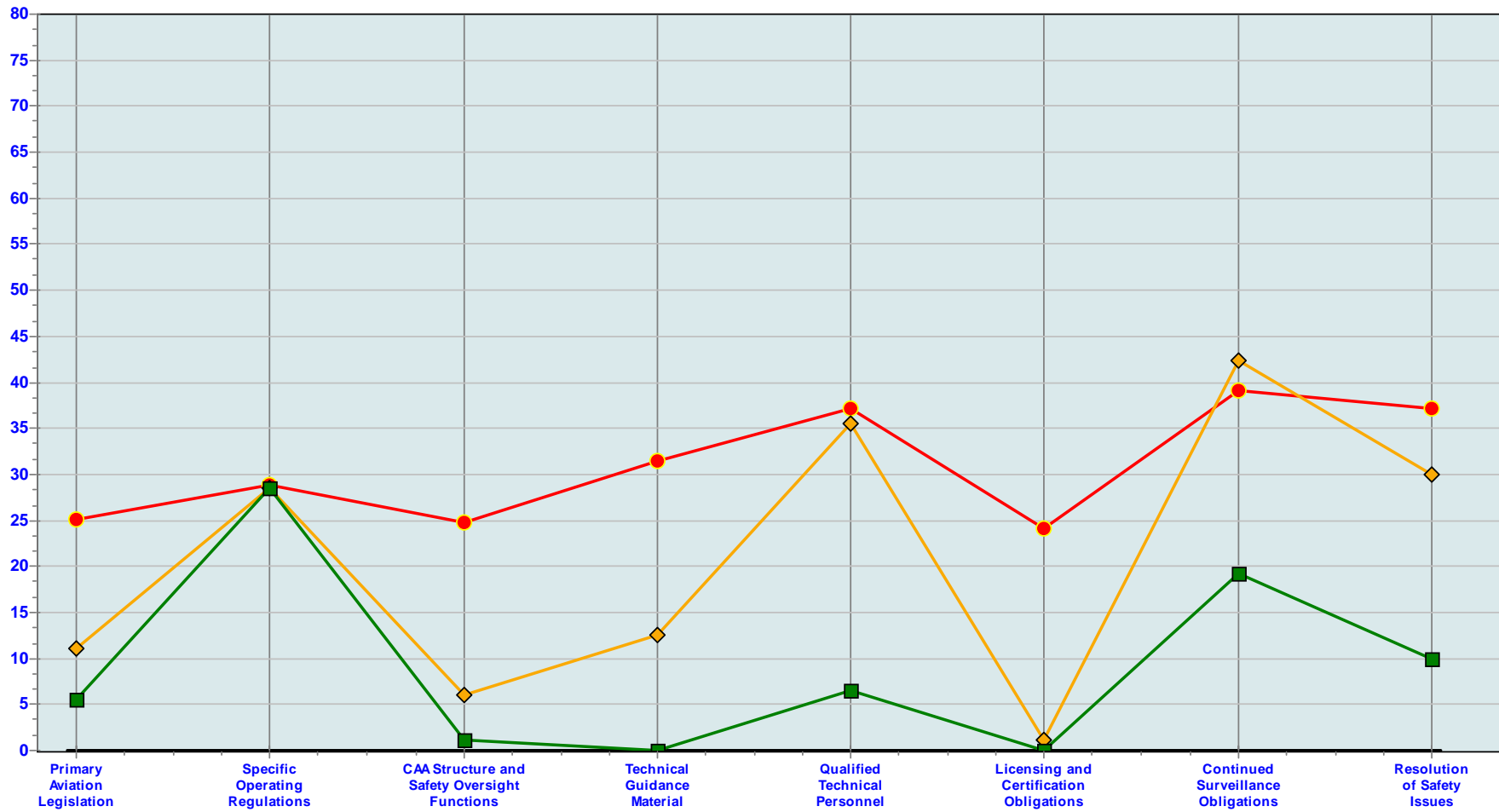
6.1 The general objective of the AFDD is to assist States in identifying the elements that need attention in the implementation of the proposed corrective action plan. The information is also intended to assist States in establishing a priority of actions to be taken to resolve safety concerns identified by the audits. The appendix to this report contains a graphic representation of the lack of effective implementation of the critical elements of safety oversight (ICAO Doc 9734 refers) in Switzerland and at a global level. The graphic

representation of the State level depicts the situation during the initial audit and the situation at the time of the audit follow-up mission. The graphic representation will enable Switzerland 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.

6.2 As indicated in paragraph 1.2 above, the scope of the audit follow-up mission was limited to validating the progress made in the implementation of the State's corrective action plan and did not constitute an audit as described in ICAO Doc 9735. The graphic representation of the situation in the State at the time of the audit follow-up mission, as contained in the appendix to this report, is similarly limited to reflecting the progress made in implementing the ICAO recommendations made during the initial audit and does not purport to depict a current comprehensive evaluation of all aspects of a State's safety oversight system. Considering the mandate for ICAO audit follow-up missions and the time available to conduct such missions, it is possible that some safety concerns may exist in the State which are not covered in this report or reflected in the appendix.

**CRITICAL ELEMENTS OF A SAFETY OVERSIGHT SYSTEM (Doc 9734 Refers)
LACK OF EFFECTIVE IMPLEMENTATION (%) — SWITZERLAND**

—●— GLOBAL: 181 (30.97%) —◇— Audit: (20.89%) —■— Follow-Up: (8.87%)



Note.- The above graphic representation of the situation in the State at the time of the audit follow-up mission is limited to reflecting the progress made in implementing the ICAO recommendations made during the initial audit.