ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME
Continuous Monitoring Approach

FINAL REPORT ON THE ICAO COORDINATED VALIDATION MISSION IN THE SWISS CONFEDERATION

(19 to 23 October 2015)

International Civil Aviation Organization

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ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME
Continuous Monitoring Approach

Final Report of the ICAO Coordinated Validation Mission in Switzerland

(19 to 23 October 2015)

1. INTRODUCTION

1.1 Background

1.1.1 Following successful implementation of the ICAO Universal Safety Oversight Audit Programme (USOAP) Comprehensive Systems Approach (CSA), the 37th Session of the Assembly (28 September – 8 October 2010) adopted Resolution A37-5, formalizing the evolution of the USOAP to a Continuous Monitoring Approach (CMA). The activities under the CMA framework include, among others, the ICAO Coordinated Validation Mission (ICVM).

1.1.2 A safety oversight audit of the civil aviation system of the Swiss Confederation, hereafter referred to as Switzerland, was conducted from 1 to 10 March 2010 under the USOAP CSA. Accordingly, Switzerland provided a corrective action plan (CAP) to ICAO, addressing the USOAP Findings and Recommendations (F&Rs) and outlining specific actions and deadlines for the correction of the deficiencies identified.

1.1.3 On 1 September 2011, Switzerland signed a Memorandum of Understanding (MOU) with ICAO regarding the USOAP CMA. According to the MOU, Switzerland agreed to an ICVM, which was conducted from 19 to 23 October 2015. The mission evaluated the status of implementation of the latest CAP of the State on the USOAP F&Rs.

1.1.4 The mission was conducted in accordance with the guidelines and principles set forth in the ICAO *Universal Safety Oversight Audit Programme Continuous Monitoring Manual* (Doc 9735) as well as in conformity with ISO 9001:2008 series of quality management standards.

1.2 ICVM team composition

1.2.1 The ICVM team was composed of:

a) Mr. Nicolas Rallo, team leader, primary aviation legislation and civil aviation regulations (LEG)/civil aviation organization (ORG)/aircraft accident and incident investigation (AIG); and
b) Mr. Jean Claude Waffo, team member, aerodromes and ground aids (AGA).

1.2.2 The scope of the ICVM did not include the areas of personnel licensing and training (PEL), aircraft operations (OPS), airworthiness of aircraft (AIR) and air navigation services (ANS).

1.3 Acknowledgements

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

2. OBJECTIVES AND ACTIVITIES OF AN ICVM

2.1 The objective of an ICVM is to assess and validate the status of the corrective actions or mitigating measures taken by a State to address previously identified F&Rs, including any Significant Safety Concerns (SSCs). ICVMs also provide the State with on-site guidance on how to resolve the remaining deficiencies.

2.2 The scope of each ICVM is based on the following considerations:

a) the level of progress made by the State in resolving previously identified deficiencies;
b) significant changes in any of the audit areas within the State's civil aviation system;
c) the State safety risk profile; and
d) whether or not an on-site activity is required or requested.

2.3 The ICVM process reviews and updates the status of Protocol Questions (PQs) previously assessed as not-satisfactory based on progress made by the State in resolving identified F&Rs and in implementing its CAP. The information collected and documented through ICVMs is validated at ICAO Headquarters (HQ) and the status of the State's overall Effective Implementation (EI) duly updated.

2.4 Corrective actions taken by a State to resolve SSCs, if any, are also reviewed during the ICVM and submitted to ICAO HQ for further action.

3. ICVM RESULTS

3.1 Executive summary

3.1.1 The USOAP audit of the civil aviation system of Switzerland conducted in 2010 generated an overall EI of 89.02 per cent for the eight critical elements (CEs) of the State's safety oversight system.

3.1.2 The ICVM in Switzerland was conducted from 19 to 23 October 2015. The ICVM team reviewed the progress in addressing 32 PQs in the areas of LEG, ORG, AIG and AGA. Following this review, the status of 13 PQs was changed to satisfactory, which resulted in an updated overall EI of 90.54 per cent.

3.1.2.1 The scope of the mission did not include the areas of PEL, OPS, AIR and ANS.

3.1.3 The CEs with the lowest EIs after the ICVM are:

a) CE-4, *Technical personnel qualifications and training*, at 77.38 per cent;
b) CE-2, *Specific operating regulations*, at 85.94 per cent; and
c) CE-3, *State civil aviation system and safety oversight functions*, at 86.52 per cent.

3.1.4 Information on the civil aviation system and activities in the areas of LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA of Switzerland may be found in the State Aviation Activity Questionnaire (SAAQ), which is updated regularly by the Federal Office of Civil Aviation (FOCA) through the USOAP CMA online framework.

3.1.5 Analyses of the EI by the eight CEs of the safety oversight system in Switzerland (Figure 1) as well as by areas (Figure 2) are found in Appendix 1 of this report. Also highlighted are recommendations for the State's high and other priorities to resolve the identified deficiencies.

3.2 Analysis of ICVM results

3.2.1 A breakdown of the ICVM results by sub-areas of CEs 1 to 4 is provided in Appendix 2 of this report.

3.2.2 A breakdown of the ICVM results by sub-area groupings for AIG and AGA is provided in Appendix 3 of this report.

3.2.3 The status of the PQs in the areas of LEG, ORG, AIG and AGA resulting from the ICVM conducted in Switzerland may be accessed by registered users on the USOAP CMA online framework: http://www.icao.int/usoap.

4. VISITS TO THE INDUSTRY/SERVICE PROVIDERS

4.1 Accompanied by staff members of the State's civil aviation system, the ICVM 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, no visits were carried out by the ICVM team.

5. FOLLOW-UP ACTION

5.1 In accordance with the MOU agreed to between Switzerland and ICAO, Switzerland replied that it had no comments on the ICVM Draft Report and also reiterated its commitment to develop its CAP accordingly. Under the terms of the MOU, the State is required to submit to ICAO regular updates of its CAP and/or SAAQ. Any subsequent updates submitted by the State relating to the implementation of its CAP will be posted on the ICAO USOAP CMA online framework (http://www.icao.int/usoap) as a progress report.

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Appendix 1 — Executive Summary

Switzerland	EI before ICVM:	89.02%
	EI after ICVM:	90.54%

Figure 1. Effective Implementation by Critical Element of a Safety Oversight System

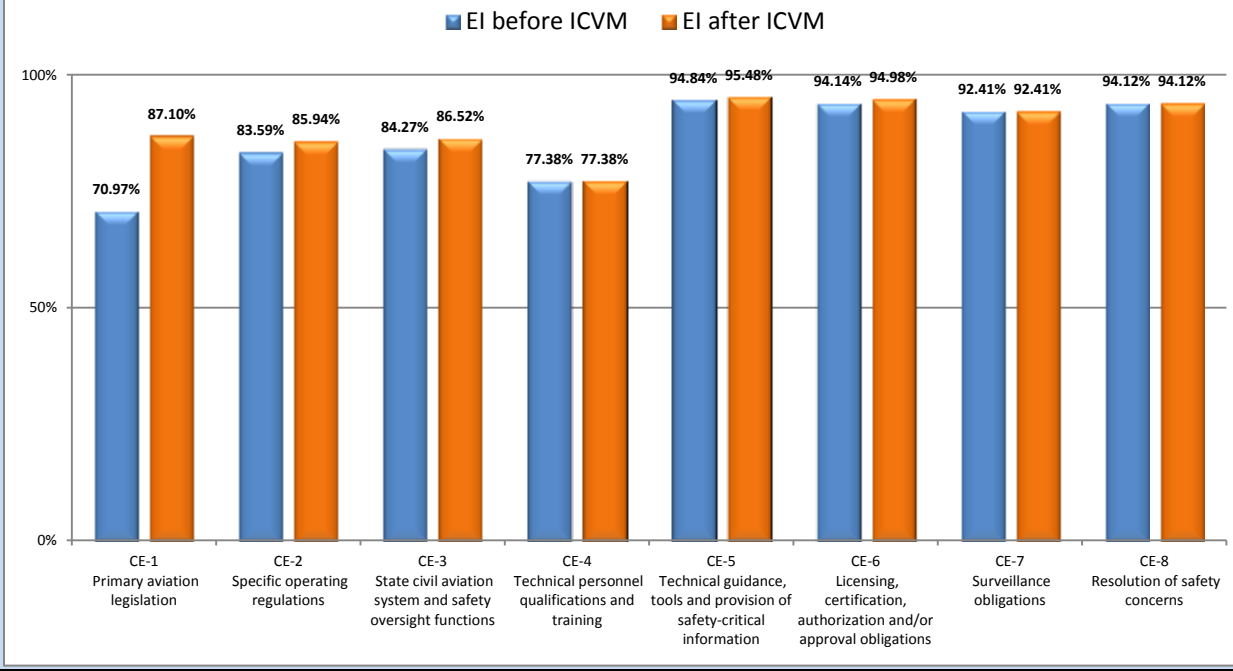
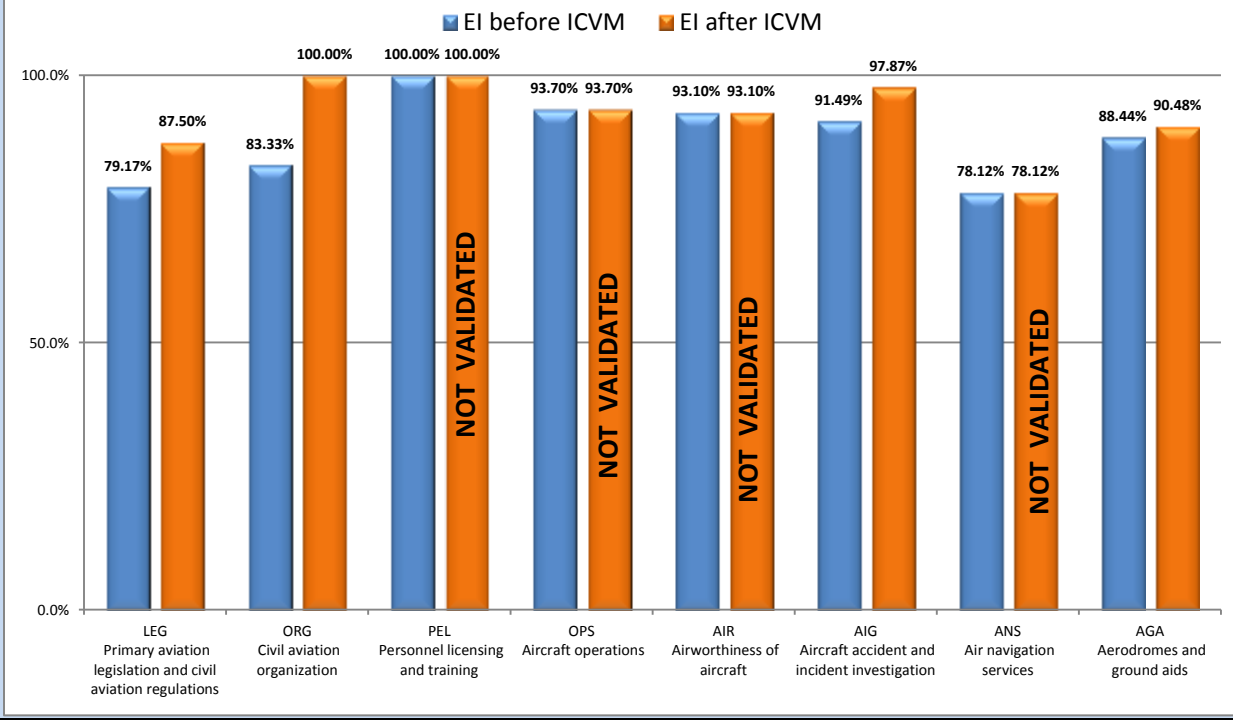


Figure 2. Effective Implementation by Area



Analysis

Considering the overall results outlined in Figures 1 and 2, the information below has been developed to assist the State in prioritizing its remedial actions.

High Priorities:

LEG:

1) Ensure that the legislation provides for the adoption of clear regulatory requirements, and does not make directly applicable in the State provisions from the Annexes to the Chicago Convention which are not suitable to be used as such as State regulatory requirements.
2) Review the process established by the FOCA for the amendment of legislation and regulations in order to explicitly address the need to repeal or amend existing legislation/regulations, in order to avoid contradictions with newly adopted or newly amended legislation/regulations.

AIG:

Review the State's legislation and regulations to ensure sufficient protection from disclosure of all investigation records, including cockpit voice recorders (CVR) and CVR recordings.

AGA:

1) Promulgate regulations to transpose the provisions of Annex 14, Volumes I and II, with the necessary customization to address the specific context of the State.
2) Complete the existing inspectors' guidance material to ensure that it covers all specialist aerodrome sub-areas, and establish clear criteria to determine the critical requirements that need detailed onsite assessment to ensure effective compliance with the regulations in force.
3) Establish and implement a mechanism to ensure that all findings identified during certification audits are duly categorized and are either closed or subject to a specific exemption with associated risk mitigation measures, as necessary, prior to the issuance of the aerodrome certificate.
4) Establish and implement a formal and comprehensive surveillance programme, which includes periodic and non-periodic audits and inspections covering all aspects of the certification and operation of an aerodrome, at the appropriate frequency, as well as unannounced inspections.

Other Priorities:

LEG:

Introduce provisions in the primary aviation legislation to fully reflect the transfer of the functions and duties as envisaged by Article 83 *bis* of the Chicago Convention and to explicitly provide for the recognition of personnel licences, certificates of airworthiness and/or radio station licences issued/ renewed by the State of the Operator under an Article 83 *bis* agreement between third-party States.

AGA:

1) Amend the aerodrome certificate to ensure that it includes all appropriate information, including the type of use of the aerodrome and any operational conditions imposed on its use based on the exemptions granted.
2) Consolidate the current and future procedures to be developed for the Aerodrome and Air Navigation Obstacles (SIAP) activities in a procedure manual or inspector's handbook.

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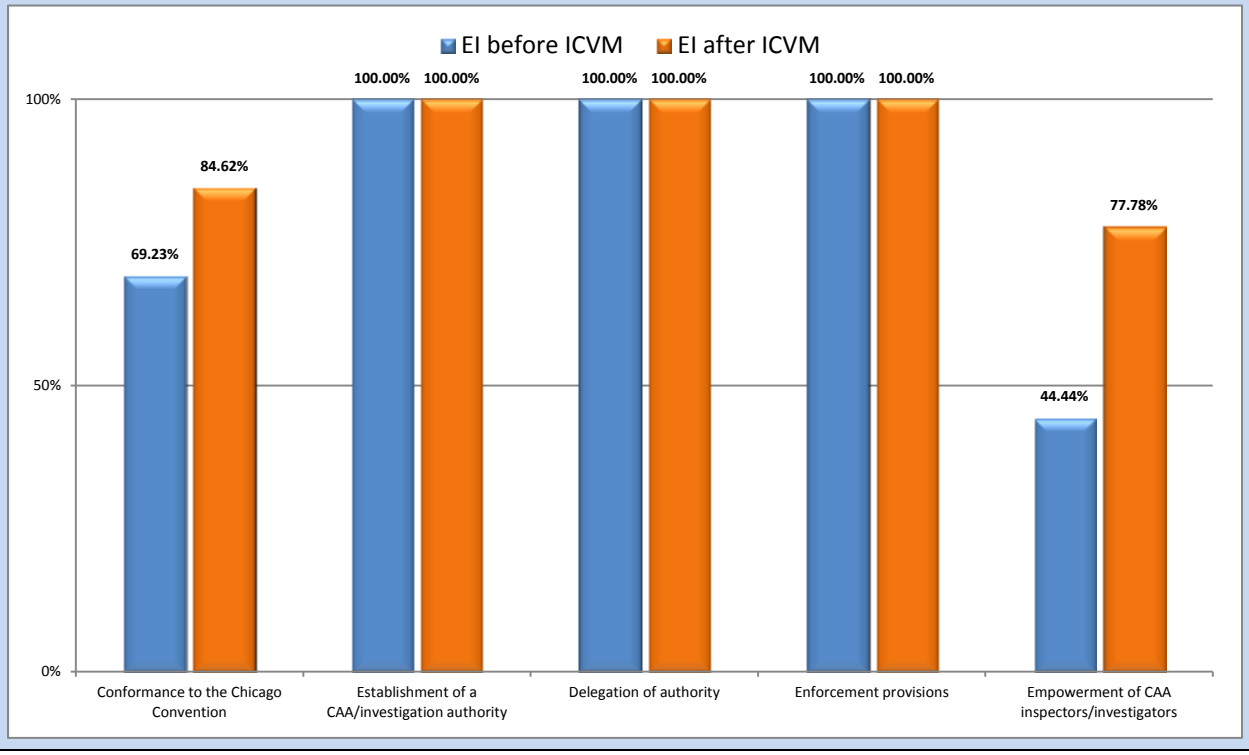
Appendix 2 — Analysis of Results by Sub-Areas of Critical Elements 1 to 4

CE-1 Primary Aviation Legislation	EI before ICVM:	70.97%
	EI after ICVM:	87.1%

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.

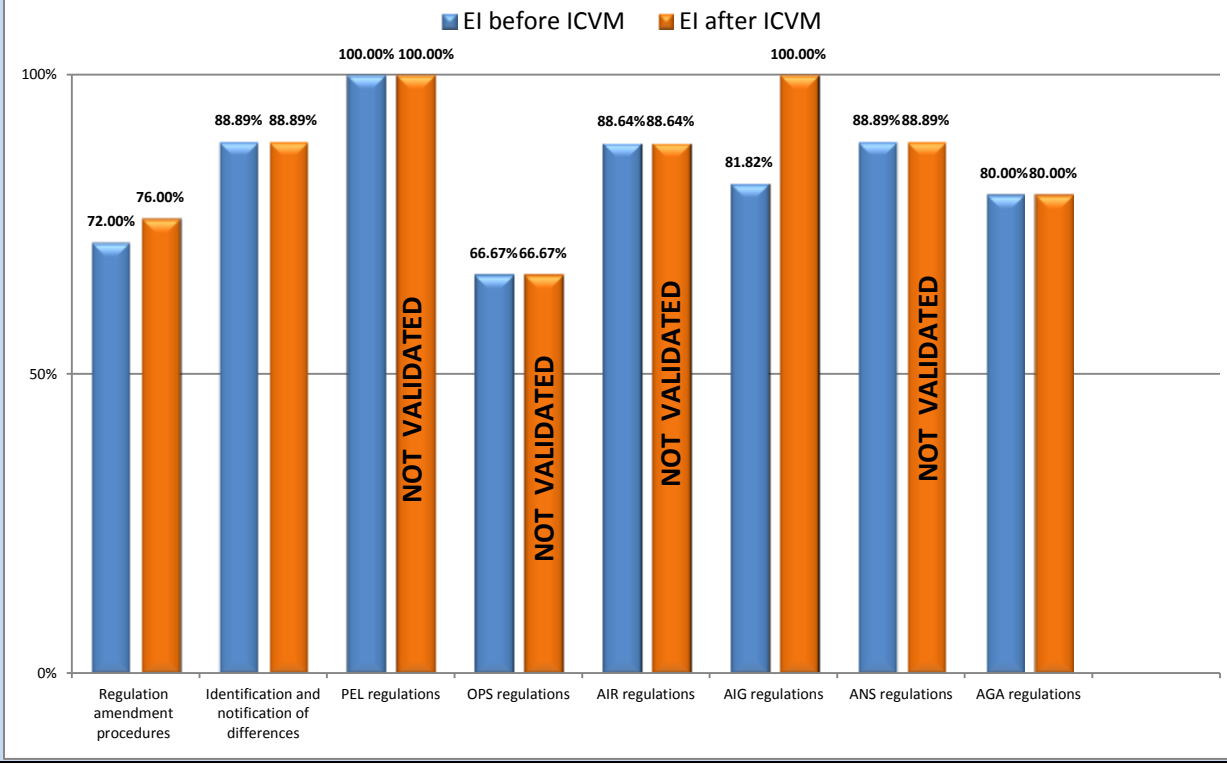
Figure 3. Effective Implementation (%) in CE-1 sub-areas



CE-2 Specific Operating Regulations	EI before ICVM:	83.59%
	EI after ICVM:	85.94%

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.

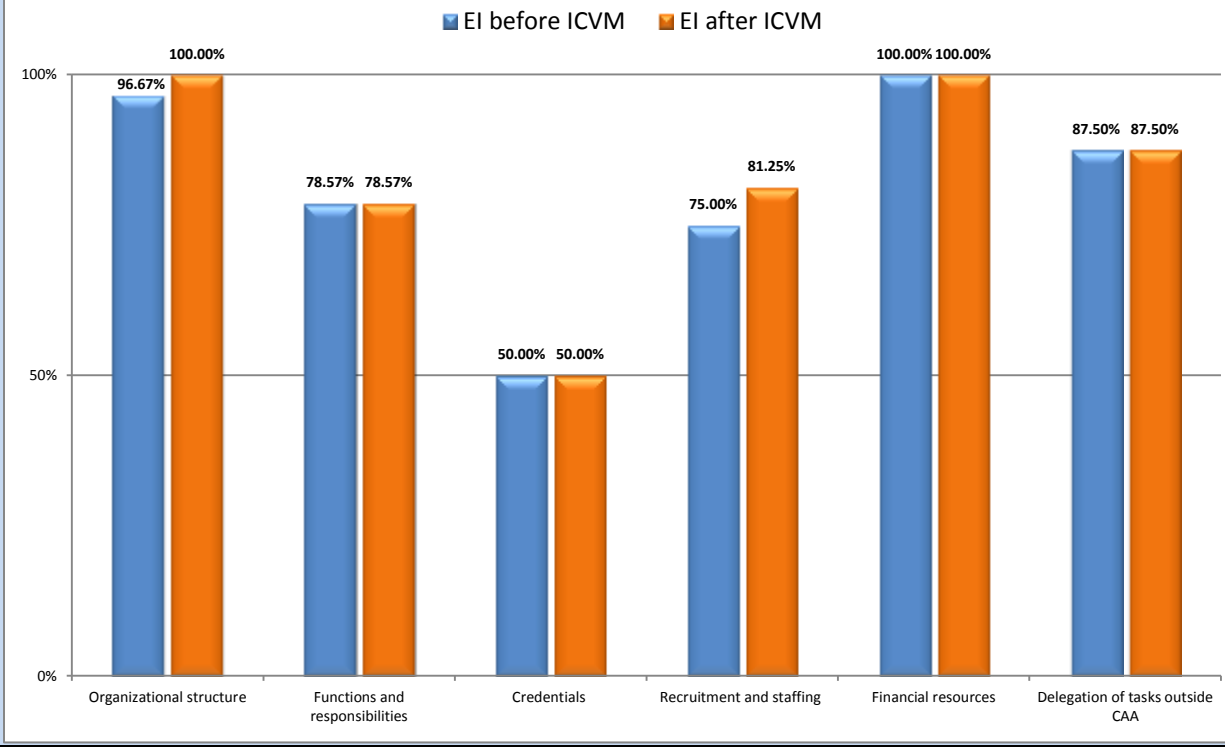
Figure 4. Effective Implementation (%) in CE-2 sub-areas



CE-3 State Civil Aviation System and Safety Oversight Functions	EI before ICVM:	84.27%
	EI after ICVM:	86.52%

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.

Figure 5. Effective Implementation (%) in CE-3 sub-areas

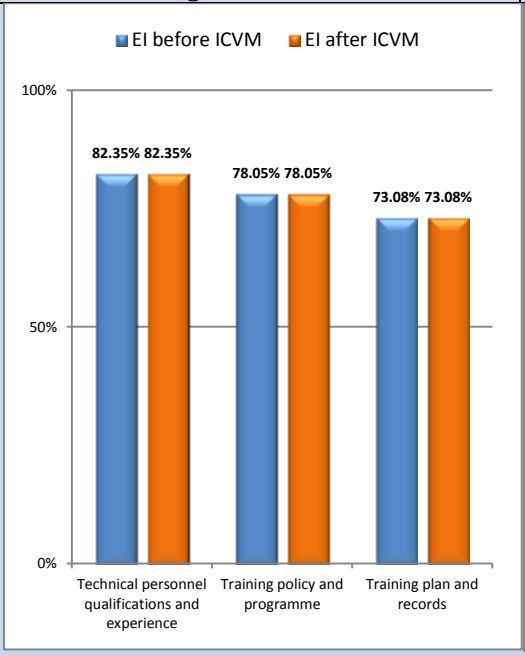


CE-4 Technical Personnel Qualifications and Training	EI before ICVM:	77.38%
	EI after ICVM:	77.38%

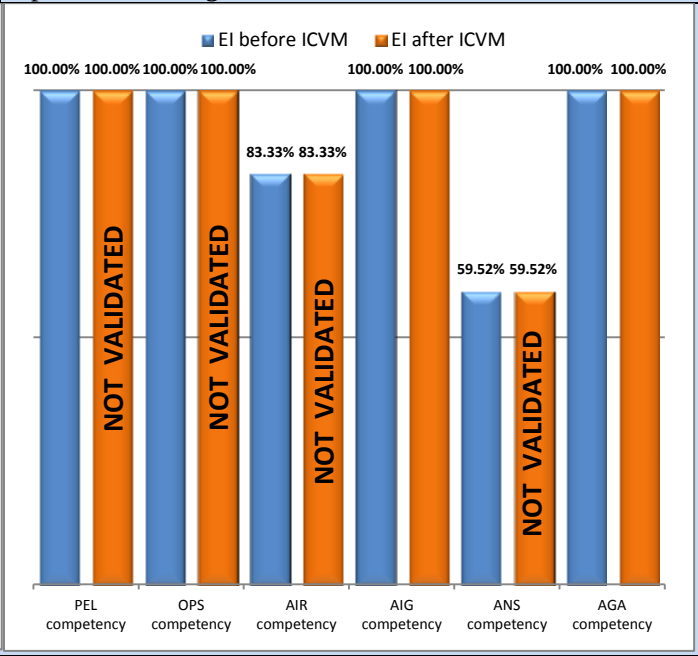
The establishment of minimum knowledge and experience requirements for the technical personnel performing safety oversight functions and the provision of appropriate training to maintain and enhance their competence at the desired level. The training should include initial and recurrent (periodic) training.

Figure 6. Effective Implementation (%) in CE-4 sub-areas

Overall Training Areas



Specific Training Areas



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Appendix 3 — Analysis of Results by Validated Areas

Figure 7. Aircraft Accident and Incident Investigation (AIG)
Protocol Questions by sub-area groupings

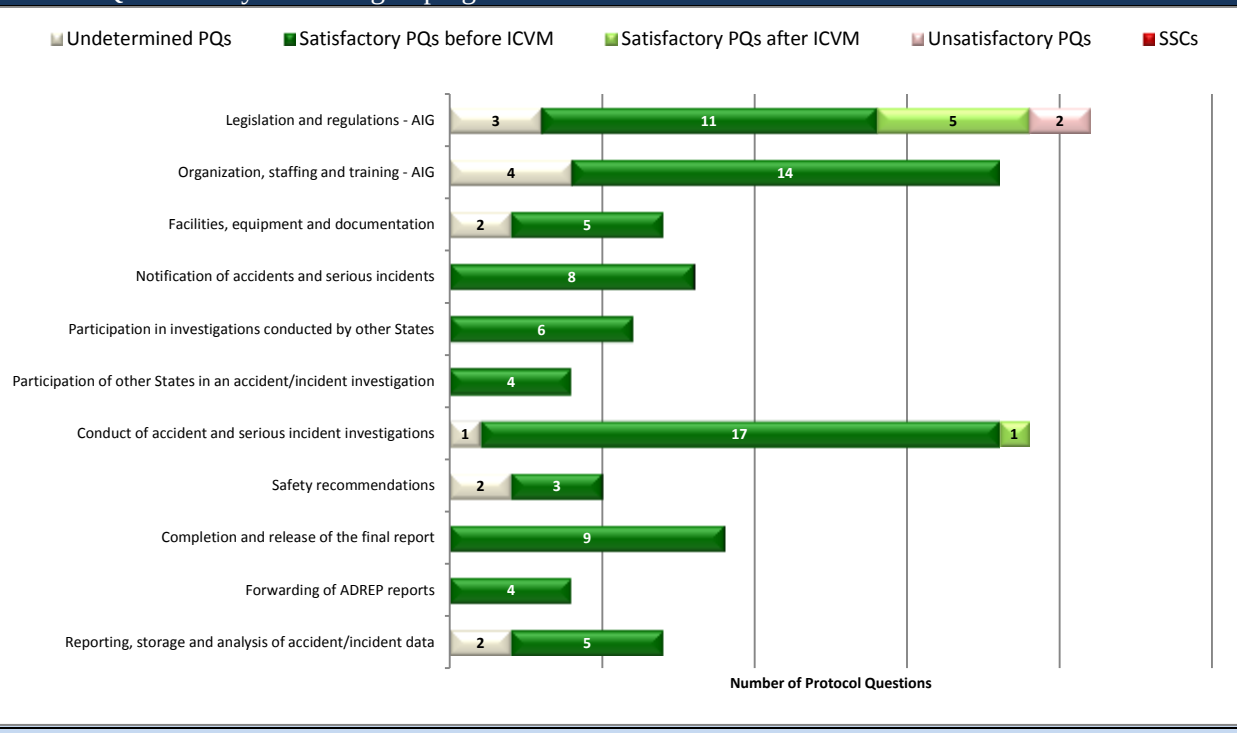
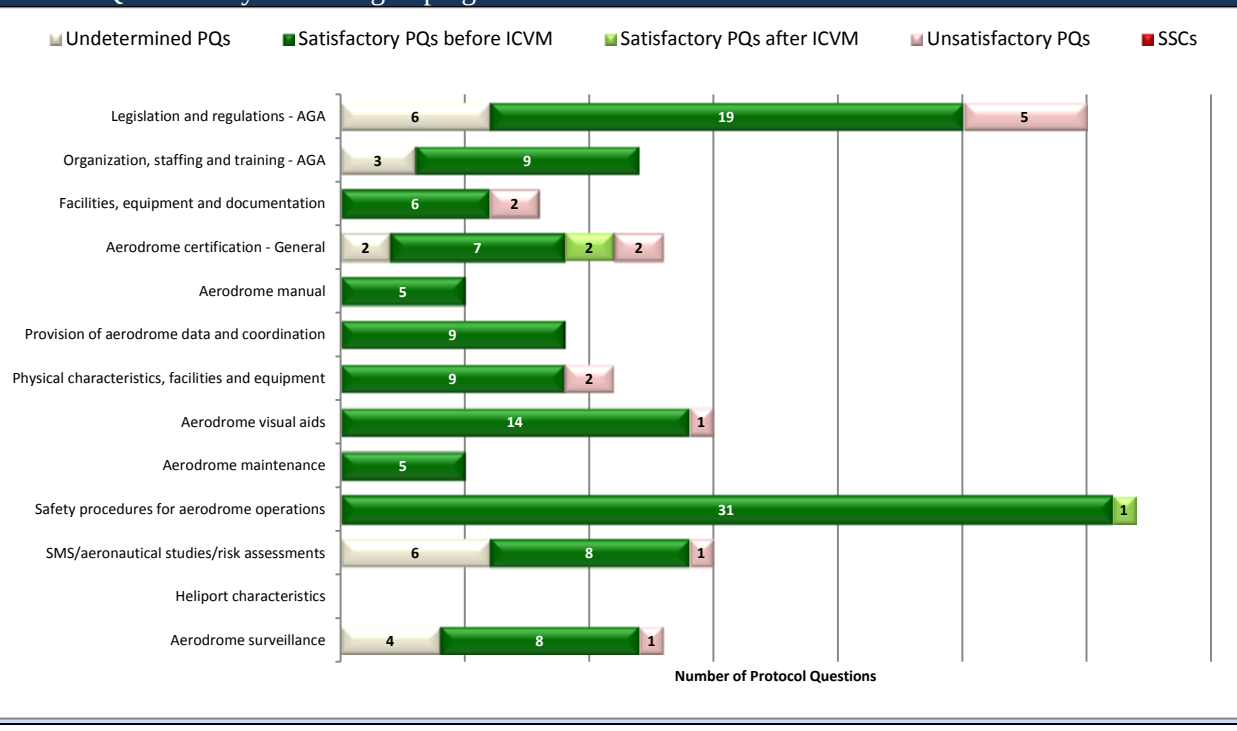


Figure 8. Aerodromes and Ground Aids (AGA)
Protocol Questions by sub-area groupings



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