ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME (USOAP)
Continuous Monitoring Approach (CMA)

FINAL REPORT OF THE USOAP CMA AUDIT OF THE CIVIL AVIATION SYSTEM OF NEW ZEALAND

(5 to 15 December 2016)

International Civil Aviation Organization

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(5 to 15 December 2016)

1. INTRODUCTION

1.1 Background

1.1.1 Pursuant to Assembly Resolution A32-11, the ICAO Universal Safety Oversight Audit Programme (USOAP) was launched in January 1999, with the mandate to conduct regular, mandatory, systematic and harmonized safety audits addressing Annexes 1, 6 and 8 to the *Convention on International Civil Aviation* (hereinafter referred to as the Chicago Convention).

1.1.2 In 2004, the 35th Session of the ICAO Assembly adopted Assembly Resolution A35-6, which expanded the USOAP to include the safety-related provisions contained in all safety-related Annexes to the Chicago Convention under a Comprehensive Systems Approach (CSA), starting in 2005. All Member States would undergo a USOAP CSA audit at least once during a six-year period.

1.1.3 Following the successful implementation of the ICAO USOAP CSA, the 37th Session of the ICAO Assembly in 2010 adopted Assembly Resolution A37-5, formalizing the evolution of the USOAP to a Continuous Monitoring Approach (CMA).

1.1.4 As a concept and methodology developed under the USOAP, the CMA provides a mechanism for ICAO to collect and analyse safety information from Member States and other stakeholders as well as to use this information in identifying and prioritizing activities to be carried out by ICAO. These activities principally include audits and ICAO Coordinated Validation Missions (ICVMs).

1.1.5 On 26 July 2012, New Zealand signed the Memorandum of Understanding (MOU) with ICAO regarding the USOAP CMA. According to the MOU, New Zealand agreed to an audit under the USOAP CMA. This audit was carried out from 5 to 15 December 2016 by an ICAO audit team 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 the ISO 9001:2008 series of quality management standards.

1.2 ICAO audit team composition

1.2.1 The ICAO audit team was composed of:

a) Mr. Thormodur Thormodsson, team leader, aircraft accident and incident investigation (AIG); and
b) Mr. John Robins, team member, AIG/on-the-job training (OJT).

1.2.2 The scope of the audit did not include the areas of primary aviation legislation (LEG), civil aviation organization (ORG), personnel licensing and training (PEL), aircraft operations (OPS), airworthiness of aircraft (AIR), air navigation services (ANS) and aerodromes and ground aids (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 contributed greatly to the success of the audit mission.

2. OBJECTIVES AND ACTIVITIES

2.1 The USOAP CMA is designed to monitor the safety oversight capabilities and safety performances of States on a continuous basis. The USOAP CMA audit assesses the safety oversight capability of a State by evaluating its implementation of the eight critical elements (CEs) of a safety oversight system.

2.2 The safety oversight capability of a State is measured by the Effective Implementation (EI), which is calculated for each CE or each audit area. The overall EI of a State is the percentage of satisfactory Protocol Questions (PQs) over the total number of satisfactory and not-satisfactory PQs.

2.3 The USOAP CMA audit covers the safety-related provisions in all safety-related Annexes to the Chicago Convention. This audit process involves three phases, with the following principal activities:

a) The *preparation phase* includes ICAO's review and analysis of the State Aviation Activity Questionnaire (SAAQ), Compliance Checklists (CCs), and/or Electronic Filing of Differences (EFOD) system duly completed by the State.
b) During the *on-site audit phase,* the ICAO audit team visits the State where it reviews the State's civil aviation legislative framework; examines documentation and facilities; as well as visits industry and service providers.
c) In the *post-audit phase*, the ICAO team presents its findings, based on the PQs, in the USOAP CMA audit report and the State develops a corrective action plan (CAP) to address each of these findings.

2.4 The audit results, including PQ findings, reflect the capabilities and limitations of the civil aviation system of the State as assessed by the audit team. They are based on one or all of the following:

a) evidence gathered during interviews with State's technical experts;
b) background information provided by such personnel; and
c) review and analysis of civil aviation legislation, specific regulations, related documentation and file records by the audit team.

2.5 Considering the time that was available to conduct the audit and the fact that the ICAO audit team members could only review and analyse information and documentation made available by the State, it is possible that some safety deficiencies may not have been identified during the audit.

3. AUDIT RESULTS

3.1 Executive summary

3.1.1 The USOAP CMA audit of the civil aviation system of New Zealand was carried out from 5 to 15 December 2016. The audit resulted in an overall EI of 84.86 per cent for the eight CEs of the State's safety oversight system.

3.1.2 As the scope of the audit only included the area of AIG, the latest audit results on record for the other seven excluded areas were used in calculating the updated overall EI of 84.86 per cent.

3.1.3 Following this audit, the CEs with the lowest EIs are:

a) CE-8, *Resolution of safety issues*, at 79.63 per cent;
b) CE-4, *Qualified technical personnel*, at 80.00 per cent; and
c) CE-2, *Specific operating regulations*, at 83.59 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 may be found in the SAAQ, which is updated regularly by the Civil Aviation Authority of New Zealand (CAANZ) through the USOAP CMA online framework.

3.1.5 Analyses of the EI by the eight CEs of the safety oversight system in New Zealand (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 audit results

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

3.2.2 A breakdown of the audit results by the sub-area grouping of AIG is provided in Appendix 3 of this report.

3.2.3 The status of the PQs in the area of AIG resulting from the audit conducted in New Zealand may be accessed by registered users on the USOAP CMA online framework: https://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 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 New Zealand, the audit team did not visit any organizations.

5. USOAP CMA ONLINE FRAMEWORK

5.1 To facilitate administration and management of USOAP, ICAO launched the USOAP CMA online framework, which is a suite of web-integrated applications that allow continuous monitoring and reporting of safety-related information and documentation received from different sources. It is designed to enhance the effectiveness and efficiency of the USOAP CMA in identifying deficiencies and associated safety risks. ICAO Member States and registered users may access the USOAP CMA online framework at https://www.icao.int/usoap.

6. STATE AVIATION ACTIVITY QUESTIONNAIRE (SAAQ)

6.1 The SAAQ is designed to collect comprehensive and specific information on each State's aviation activities, including legislative, regulatory, organizational, operational, technical and administrative details. Each State shall complete and maintain its SAAQ up to date through the USOAP CMA online framework in order to assist the Safety and Air Navigation Oversight Audit Section (OAS) in monitoring the level of aviation activity in the State related to each audit area and in prioritizing and planning USOAP CMA activities.

6.2 New Zealand has fully completed its SAAQ online and this can be found at https://www.icao.int/usoap.

7. COMPLIANCE CHECKLISTS (CCs)

7.1 States are required to complete and maintain up-to-date CCs that contain information on the implementation of the specific provisions of the relevant Annexes to the Chicago Convention. The completion of the CCs by Member States will provide authorized users with an overview of the level of implementation of ICAO Standards. States are encouraged to provide this information through the EFOD system.

7.2 New Zealand has completed 96.21 per cent of its CCs online and this can be found at https://www.icao.int/usoap.

8. FOLLOW-UP ACTION

8.1 In accordance with the MOU agreed to between New Zealand and ICAO, New Zealand submitted its comments to the draft report on 13 April 2017. The comments were reviewed by OAS and taken into consideration in the production of this final report. Under the terms of the MOU, the State is required to submit regular updates of its CAP and/or SAAQ. Any subsequent CAP updates will also be posted on the ICAO USOAP CMA online framework (https://www.icao.int/usoap) as a progress report.

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Appendix 1 — Executive Summary

New Zealand	EI before Audit:	83.72%
	EI after Audit:	84.86%

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

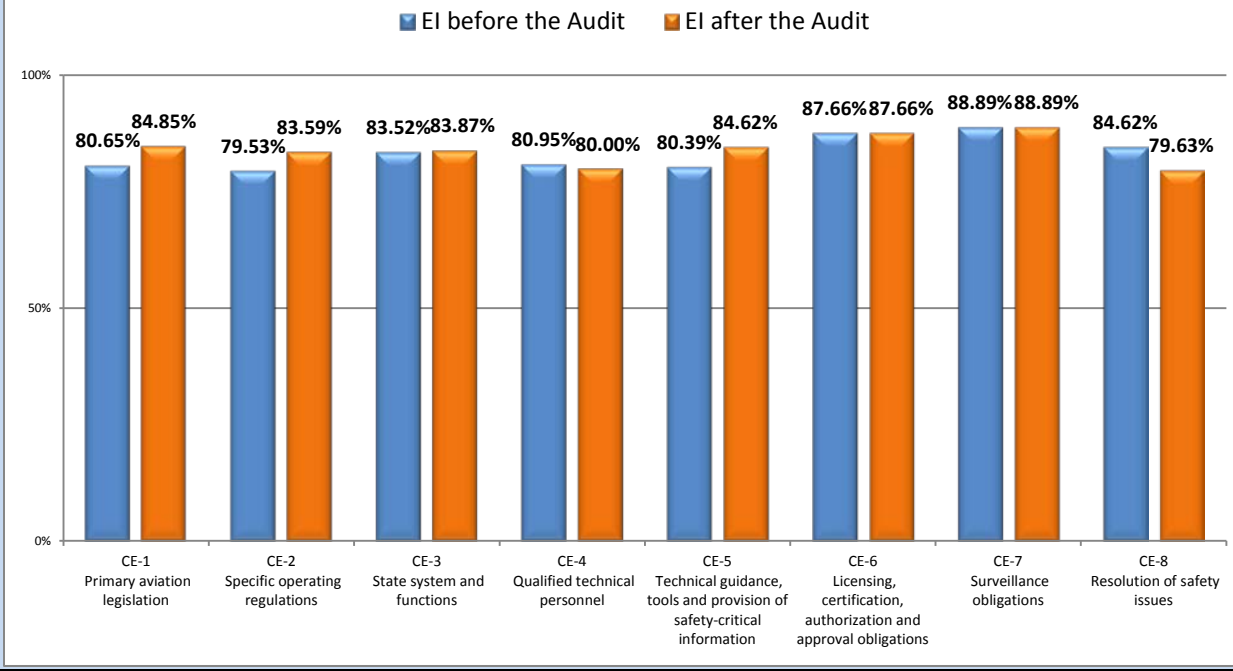
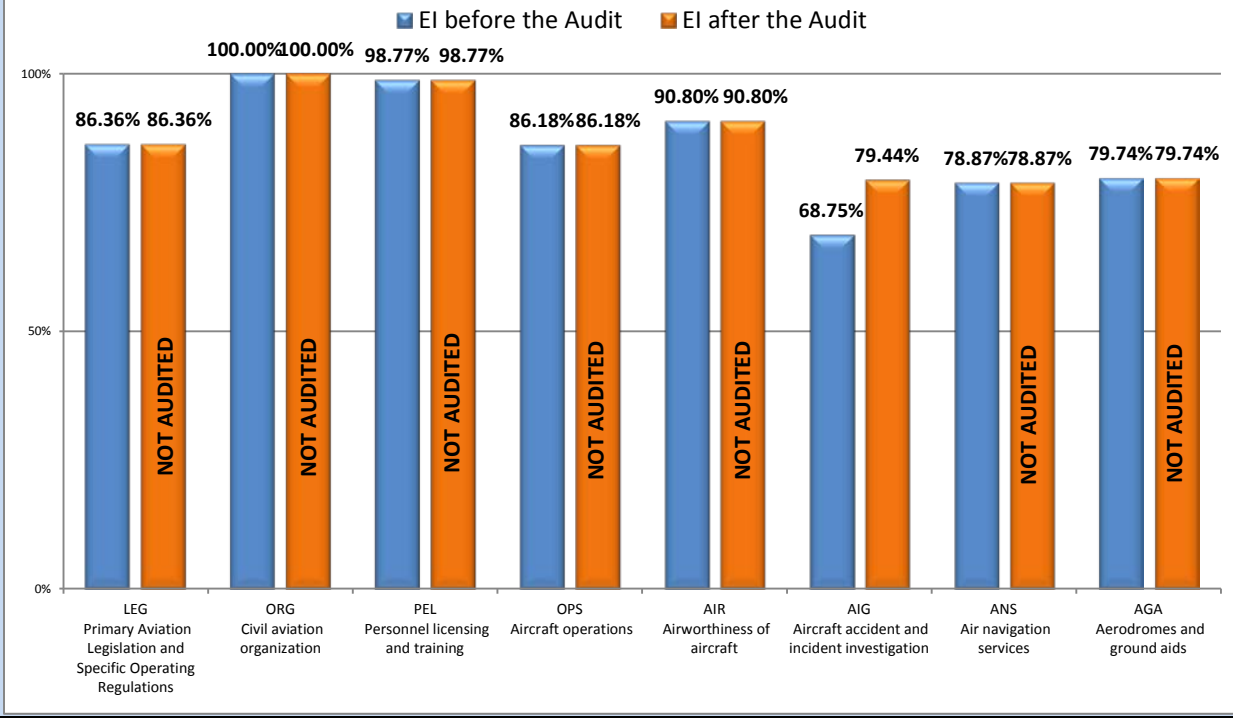


Figure 2. Effective Implementation by Area



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: AIG

1) Establish and implement procedures to ensure that, in the event of an accident or serious incident, all air traffic services (ATS) communication recordings and documents associated with the flight are secured and placed in safe keeping.

2) Develop and implement a procedure to protect from disclosure the recordings and transcripts of recordings of the air traffic control (ATC) units.

3) Develop and implement procedures to ensure that initial notification of accidents and serious incidents, preliminary ADREP reports, ADREP data reports and copies of final reports are systematically submitted to the relevant States and ICAO, as applicable.

4) Establish and implement procedures to ensure that, as the State conducting an investigation, comments are appended to the final report of said investigation, if desired by the State which provided the comments.

5) Establish and implement procedures to ensure that, upon receipt of a safety recommendation from another State, the proposing State is informed within 90 days of the preventive action taken or under consideration, or the reasons why no action will be taken.

Other Priorities: **AIG**

1) Enhance and implement the procedures for amendment of accident and serious incident investigation enabling legislation/regulations to ensure the timely promulgation of the amendments.

2) Develop and implement a procedure for identifying and notifying differences to ICAO.

3) Establish and implement a system for the recording and maintenance of on-the-job training records of the technical personnel.

4) Update the State's accident and incident database to an internationally standardized format to facilitate data exchange.

5) Establish and implement procedures to ensure that, as the State conducting an investigation, a copy of the draft final report on the investigation is sent for comments:
   a) through the State of the Operator to the air operator; and
   b) through the State of Design and State of Manufacture to the organizations responsible for the type design and the final assembly of the aircraft.

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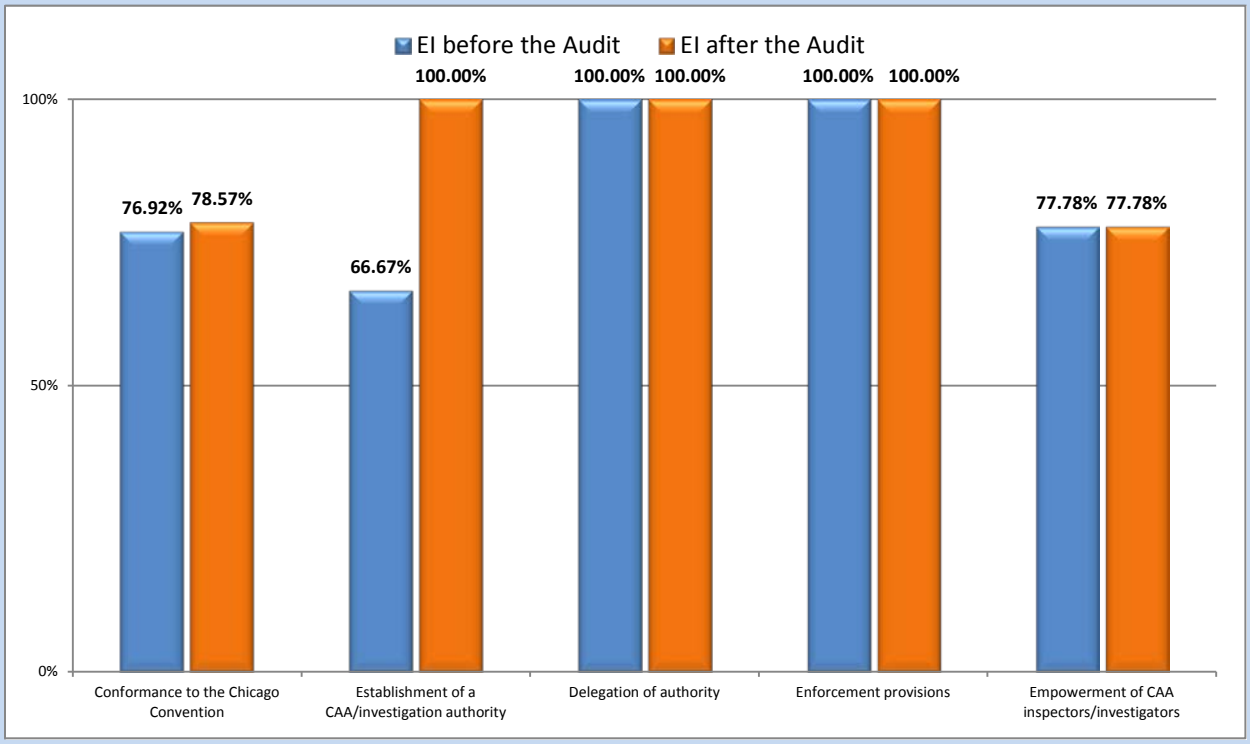
Appendix 2 — Analysis of Results by Sub-Areas of Critical Elements 1 to 4

CE-1 Primary Aviation Legislation	EI before Audit:	80.65%
	EI after Audit:	84.85%

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.

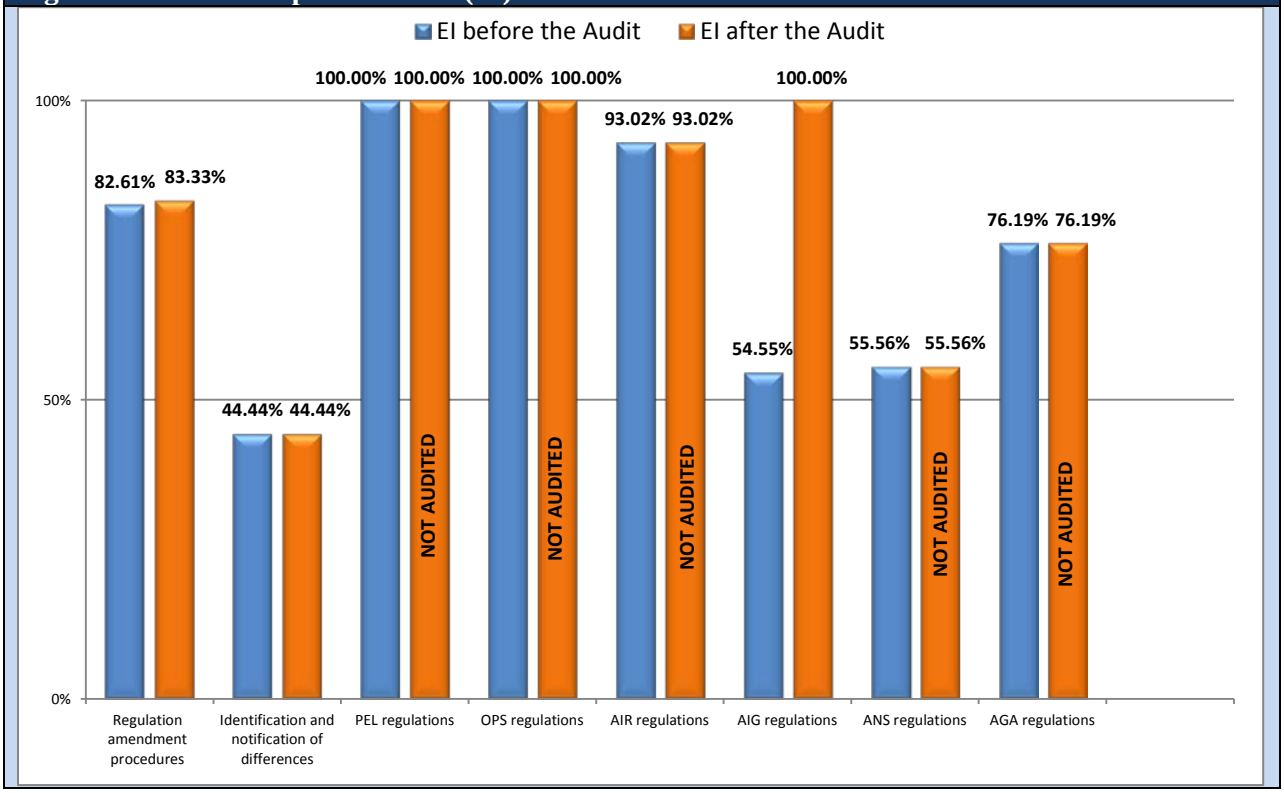
Figure 3. Effective Implementation (%) in CE-1 sub-areas



CE-2 Specific Operating Regulations	EI before Audit:	79.53%
	EI after Audit:	83.59%

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.

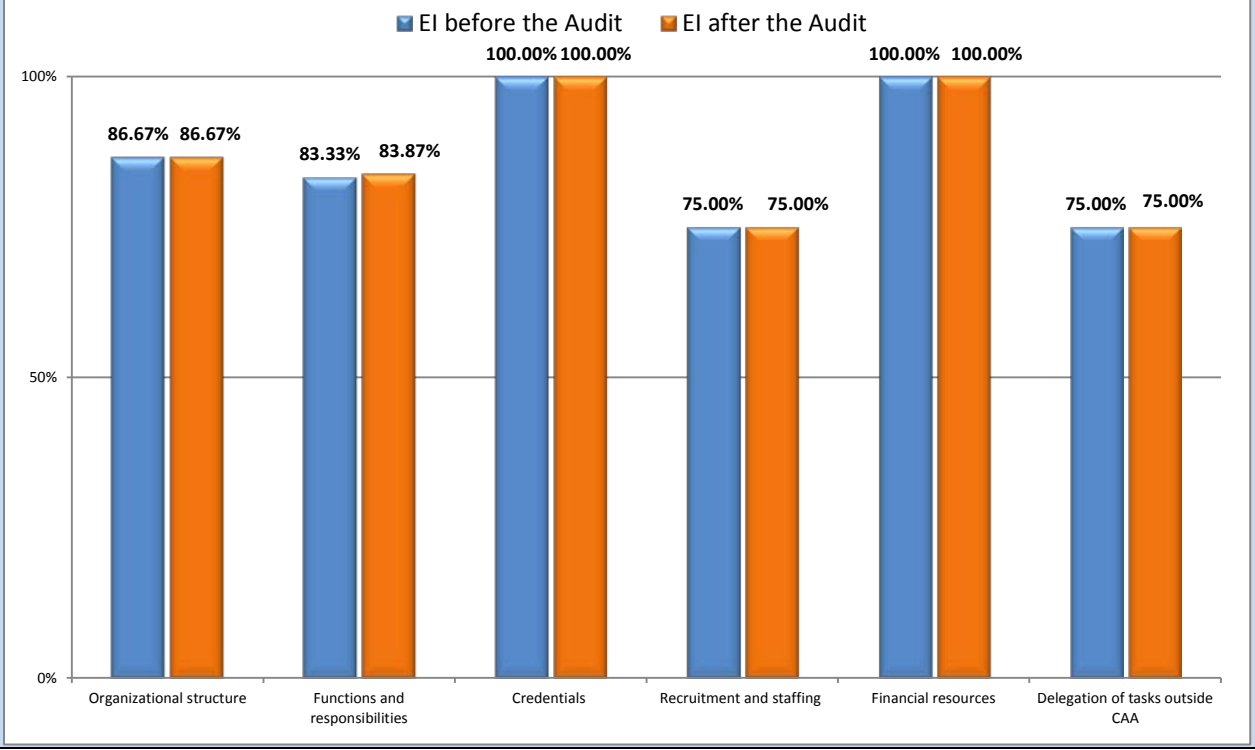
Figure 4. Effective Implementation (%) in CE-2 sub-areas



CE-3 State System and Functions	EI before Audit:	83.52%
	EI after Audit:	83.87%

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

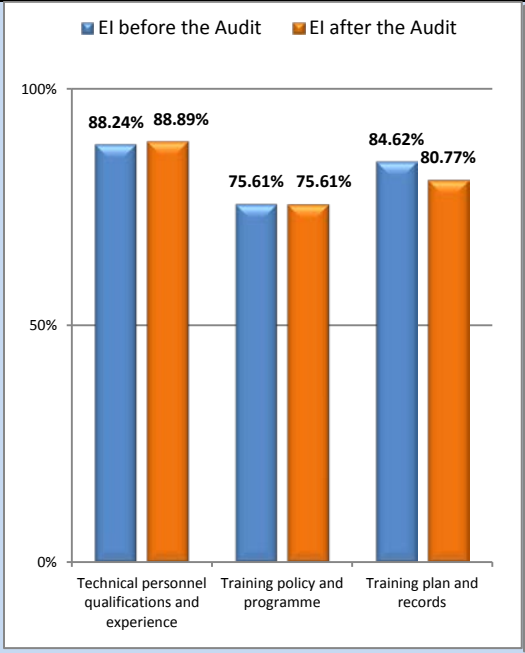


CE-4 Qualified Technical Personnel	EI before Audit:	80.95%
	EI after Audit:	80%

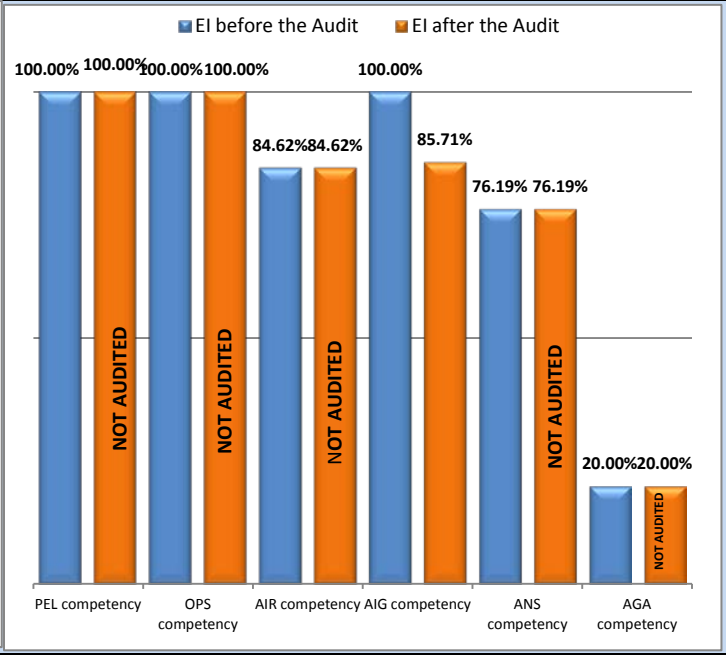
The establishment of minimum knowledge and experience requirements for the technical personnel performing safety oversight functions and the provision of appropriate training to maintain and enhance their competence at the desired level. The training should include initial and recurrent (periodic) training.

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

Overall Training Areas



Specific Training Areas



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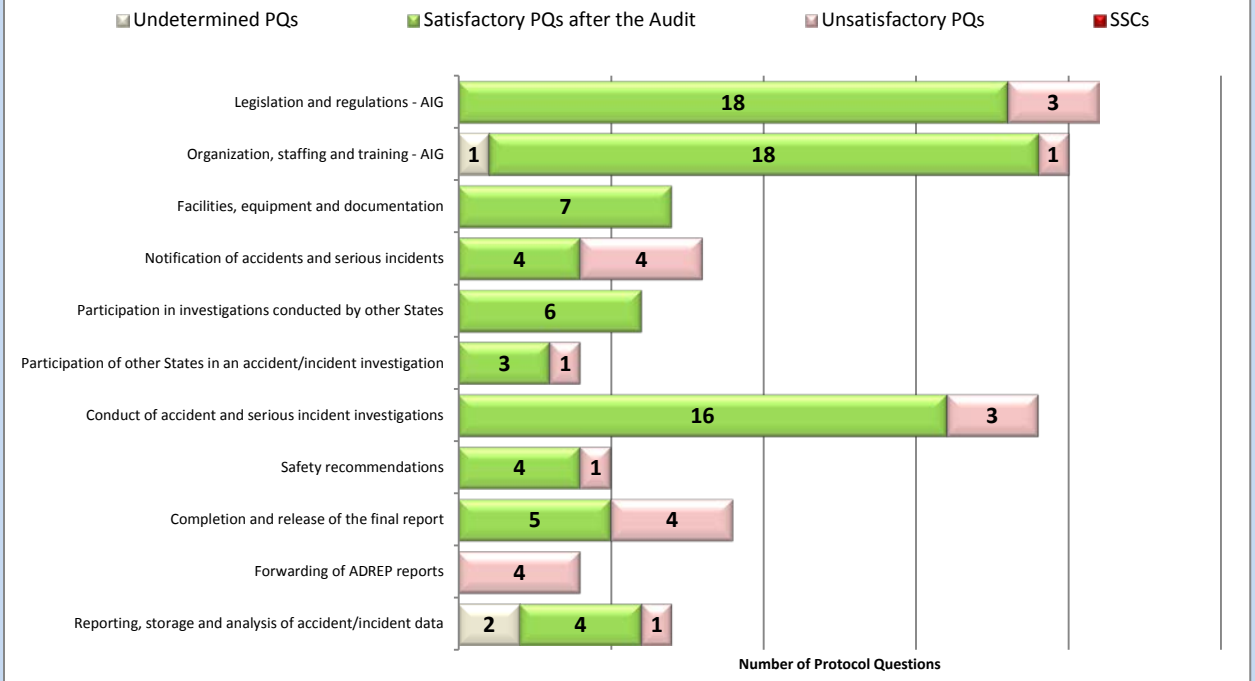
Appendix 3 — Analysis of Results by Audited Area

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



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