

**ICAO UNIVERSAL SAFETY OVERSIGHT AUDIT PROGRAMME**  
**Continuous Monitoring Approach**

**FINAL REPORT  
OF THE ICAO  
COORDINATED VALIDATION MISSION  
IN  
AUSTRALIA**

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*(9 to 13 October 2017)*



**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 Australia

*(9 to 13 October 2017)*

## 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 Australia was conducted from 18 to 28 February 2008 under the USOAP CSA. Accordingly, Australia 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 8 March 2012, Australia signed a Memorandum of Understanding (MOU) with ICAO regarding the USOAP CMA. A second safety oversight audit, covering the aircraft accident and incident investigation (AIG) area only, was conducted from 3 to 10 April 2017 under the USOAP CMA. Accordingly, Australia provided a corrective action plan (CAP) to ICAO, addressing the USOAP F&Rs and outlining specific actions and deadlines for the correction of the deficiencies identified.

1.1.4 According to the MOU, Australia also agreed to an ICVM, which was conducted from 9 to 13 October 2017. This last mission evaluated further the progress made by the State in resolving its USOAP F&Rs.

1.1.5 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 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 specific operating regulations (LEG)/civil aviation organization (ORG)/ aircraft accident and incident investigation (AIG);
- b) Mr. Cristian Olinescu, team member, personnel licensing and training (PEL)/aircraft operations (OPS);

- c) Mr. Cheong Tuck Kong, team member, airworthiness of aircraft (AIR);
- d) Mr. Len Wicks, team member, air navigation services (ANS); and
- e) Mr. Jean Claude Waffo, team member, aerodromes and ground aids (AGA).

### 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 Australia conducted in 2008 generated an overall EI of 82.63 per cent for the eight critical elements (CEs) of the State's safety oversight system.

3.1.2 An off-site validation activity was performed in 2016 during which the team reviewed the progress made by the State in the areas of LEG, PEL, OPS, AIR, AIG, ANS and AGA. Following this review, the overall EI was updated to 85.27 per cent.

3.1.3 A second USOAP audit (AIG area only) conducted in 2017 resulted in an overall EI of 85.05 per cent for the eight CEs of the State's safety oversight system.

3.1.4 An ICVM was conducted in Australia from 9 to 13 October 2017. The ICVM team reviewed the progress in addressing 125 PQs in the areas of LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA. Following this review, the status of 83 PQs was changed to satisfactory, resulting in an updated overall EI of 94.98 per cent.

*Note.— EI values may vary due to the introduction of the most recent edition of the PQs.*

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

- a) CE-2, *Specific operating regulations*, at 87.07 per cent;
- b) CE-4, *Qualified technical personnel*, at 92.31 per cent; and
- c) CE-1, *Primary aviation legislation*, at 93.94 per cent.

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

3.1.7 Analyses of the EI by the eight CEs of the safety oversight system in Australia (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 PEL, OPS, AIR, AIG, ANS and AGA is provided in Appendix 3 of this report.

3.2.3 The status of the PQs in the areas of LEG, ORG, PEL, OPS, AIR, AIG, ANS and AGA resulting from the ICVM conducted in Australia 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 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 Australia, the ICVM team visited the following organizations:

Airservices Australia (Air Navigation Services Provider National Operations Centre – Air Traffic Flow Management, Aeronautical Information Services), Bureau of Meteorology (Aeronautical Meteorological Services) and Australian Maritime Safety Authority (Aeronautical and Maritime Search and Rescue Services) (ANS).

## 5. FOLLOW-UP ACTION

5.1 In accordance with the MOU agreed to between Australia and ICAO, Australia replied in a letter dated 23 February 2018 that it had no comments on the draft report and also reiterated its commitment to develop its CAPs accordingly.

5.2 According to the MOU, the State undertakes to submit its updated CAPs directly on the USOAP CMA online framework (<https://www.icao.int/usoap>) within 45 days after receipt of this final report.

5.3 The CAPs should provide specific actions and estimated implementation dates, as well as a responsible office for taking action to correct the deficiencies identified in the findings. Further guidance on how to develop effective CAPs is outlined in the “[Guidance for States on Developing Corrective Action Plans \(CAPs\)](#)”, which can be found in the “CMA Library” of the online framework.

5.4 ICAO will provide Australia with feedback on the acceptability of the proposed updated CAPs. If any proposed corrective actions do not fully address the associated findings, the State will be notified accordingly.

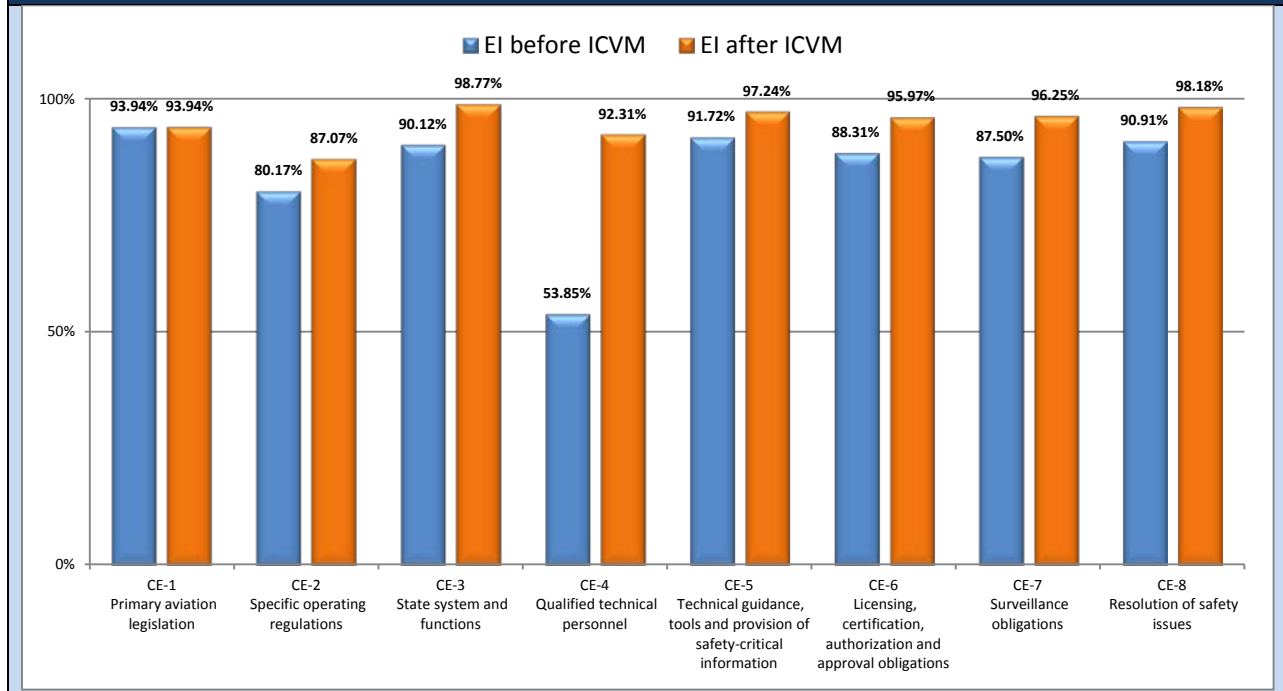
5.5 If no CAP is submitted, ICAO will contact Australia to determine the reasons for not providing a CAP and report its findings to Council.

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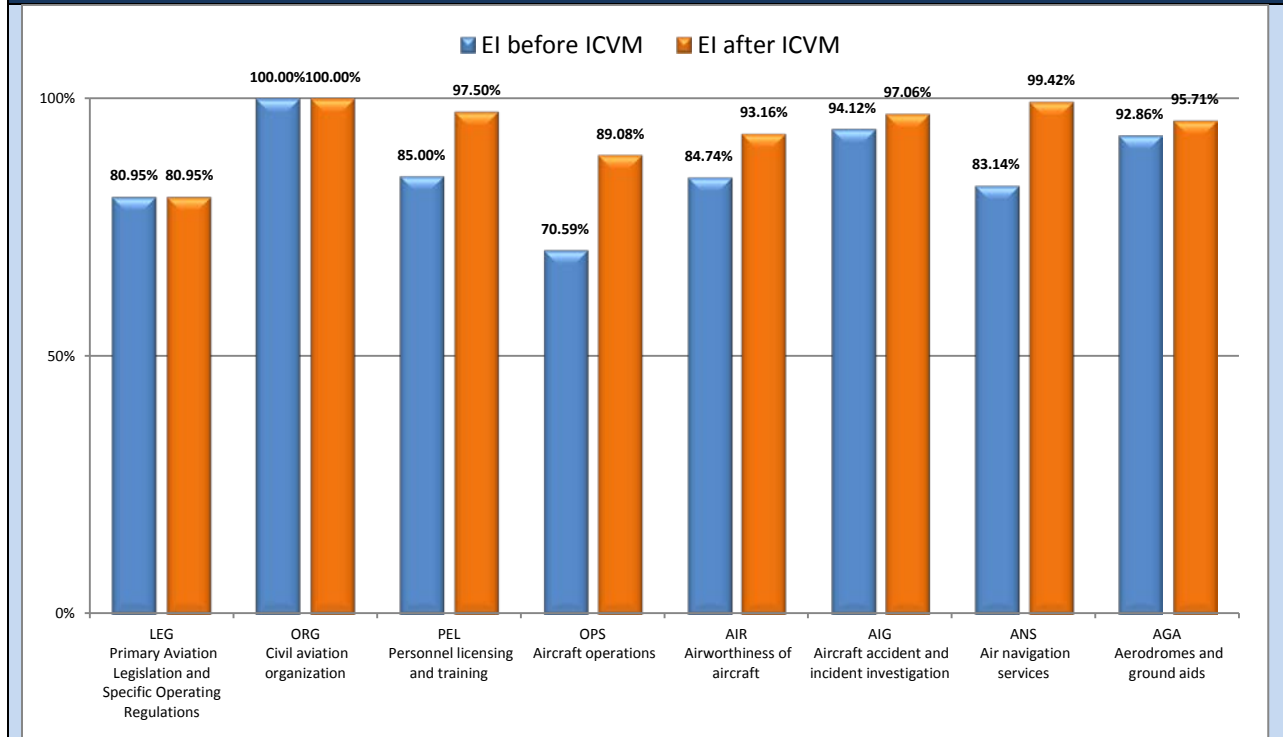
# Appendix 1 — Executive Summary

Australia	EI before ICVM:	85.05%
	EI after ICVM:	94.98%

**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) Review the processes, procedures and/or arrangements in place to ensure that all relevant State safety oversight and investigation authorities (particularly with respect to Annexes 3, 12 and 13 to the Chicago Convention) are involved, in a coordinated manner, in the processing of adopted Annex amendments, with a view to:
  - a) identifying all differences between the Standards and Recommended Practices (SARPs) and the State's regulations and practices; and
  - b) determining any need to amend the State's legislation.
- 2) Ensure a timely and consistent update of national regulations whenever amendments to Annexes 1, 6 and 18 are received.
- 3) Ensure a consistent, thorough and documented review of the State's enabling airworthiness-related regulations and national standards subsequent to an Annex amendment or an amendment by the originating State/organization, if applicable, to decide on the next course of action.
- 4) Establish requirements regarding the documents to be carried on board, to include the journey logbook.
- 5) Establish requirements, based on scientific principles, knowledge and operational experience, for flight time, flight duty period, duty period and rest period limitations applicable for cabin crew.
- 6) Establish requirements for human factors principles to be observed in the design and application of maintenance programmes.
- 7) Amend the State's legislation to require the re-opening of an investigation if new and significant evidence becomes available.

#### *ORG:*

- 1) Include all required training in the training programmes established for the Civil Aviation Safety Authority (CASA)'s airworthiness inspectors and engineers, and ensure the effective implementation of such training, in particular during the on-the-job training (OJT).
- 2) Finalize the recruitment and training of additional investigators to ensure that the Australian Transport Safety Bureau (ATSB) can meet its national and international obligations with respect to aircraft accident and incident investigations.

#### *PEL:*

None.



**High Priorities: (cont.)***OPS:*

- 1) Establish and implement procedures to ensure that air operators develop instructions to preserve flight recorders to the extent possible, in the event that the aeroplane becomes involved in an accident or incident and to keep flight recorders and associated records in safe custody pending their disposition.
- 2) Establish a system to ensure that air operators implement and maintain requirements, in the operations manual, to establish flight time, flight duty period, duty period and rest period limitations for cabin crew.
- 3) Establish a system to ensure full compliance of air operator certificate (AOC) associated operations specifications with the elements and the format/layout outlined in the relevant provisions of Annex 6 to the Chicago Convention.
- 4) Establish and implement a system to ensure that procedures for the approval of operations specifications are fully defined and implemented.
- 5) With respect to the transport of dangerous goods by air, ensure that procedures for the surveillance of authorized or non-authorized air operators, national and foreign operators are fully defined and implemented, and include regular and random inspections.

*AIR:**Airworthiness Inspection:*

- 1) Establish and implement procedures for the approval of leases among commercial air transport operators.
- 2) Review procedures/guidance for adequacy and, where possible, use standardized terminology to minimize misinterpretation.

*Design Certification and Production:*

None.

*AIG:*

Fully implement the ATSB's action plan to ensure that all accident and incident investigation reports are completed within the established timelines.

*ANS:*

None.

*AGA:*

- 1) Ensure full implementation of Annex 14, Volume I requirements on Runway End Safety Areas (RESAs) at aerodromes.
- 2) Ensure full implementation of Annex 14, Volume I requirements for the provision of rescue and firefighting (RFF) services at aerodromes, which take into account the aerodrome location and the surrounding terrain.

**Other Priorities:***LEG:*

- 1) Amend the State's primary aviation legislation to include explicit provisions to recognize as valid personnel licences, certificates of airworthiness and radio station licences issued/renewed by the State of the Operator under an Article 83 bis agreement between two third-party States.
- 2) Ensure that the Aeronautical Information Publication (AIP) contains all significant differences, not only with the SARPs, Procedures for Air Navigation Services (PANS)-OPS and PANS-ATM, but also with all other PANS and the Regional Supplementary Procedures (SUPPS).

*ORG:*

Ensure that aerodrome inspectors are provided with training related to the regulation, acceptance and surveillance of the safety management system (SMS) which is customized to suit to specificities of aerodromes.

*PEL:*

None.

*OPS:*

None.

*AIR:**Airworthiness Inspection:*

Clarify the procedures, including associated flowcharts, which describe the granting of the noise certificate.

*Design Certification and Production:*

- 1) Review the documentation published on CASA's intranet to ensure that obsolete documents (in particular AEB Form 002) are not available to staff, in order to minimize inadvertent use.
- 2) Enhance the control of existing forms and checklists by including revision/issue control reference in addition to date of revision.

*AIG:*

None.

*ANS:*

None.

*AGA:*

Ensure that the State has a coordinated mechanism to ensure full and effective implementation of the obstacle limitation surfaces (OLS) at aerodromes, including arrangements to prohibit any building developments which could create an obstacle to aircraft operations.

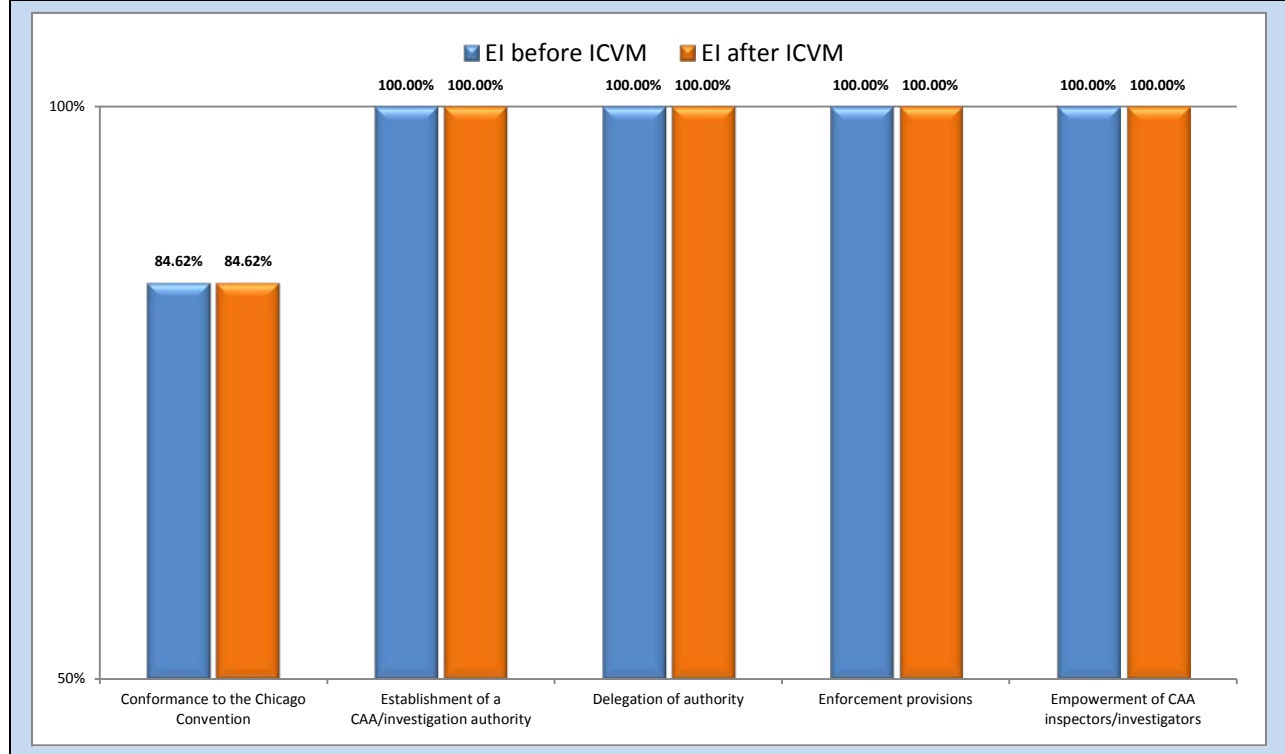
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## Appendix 2 — Analysis of Results by Sub-Areas of Critical Elements 1 to 4

CE-1 Primary Aviation Legislation	EI before ICVM:	93.94%
	EI after ICVM:	93.94%

*The promulgation of a comprehensive and effective aviation law commensurate with the size and complexity of the State's aviation activity and consistent with the requirements contained in the Convention on International Civil Aviation, to enable the oversight and management of civil aviation safety and the enforcement of regulations through the relevant authorities or agencies established for that purpose.*

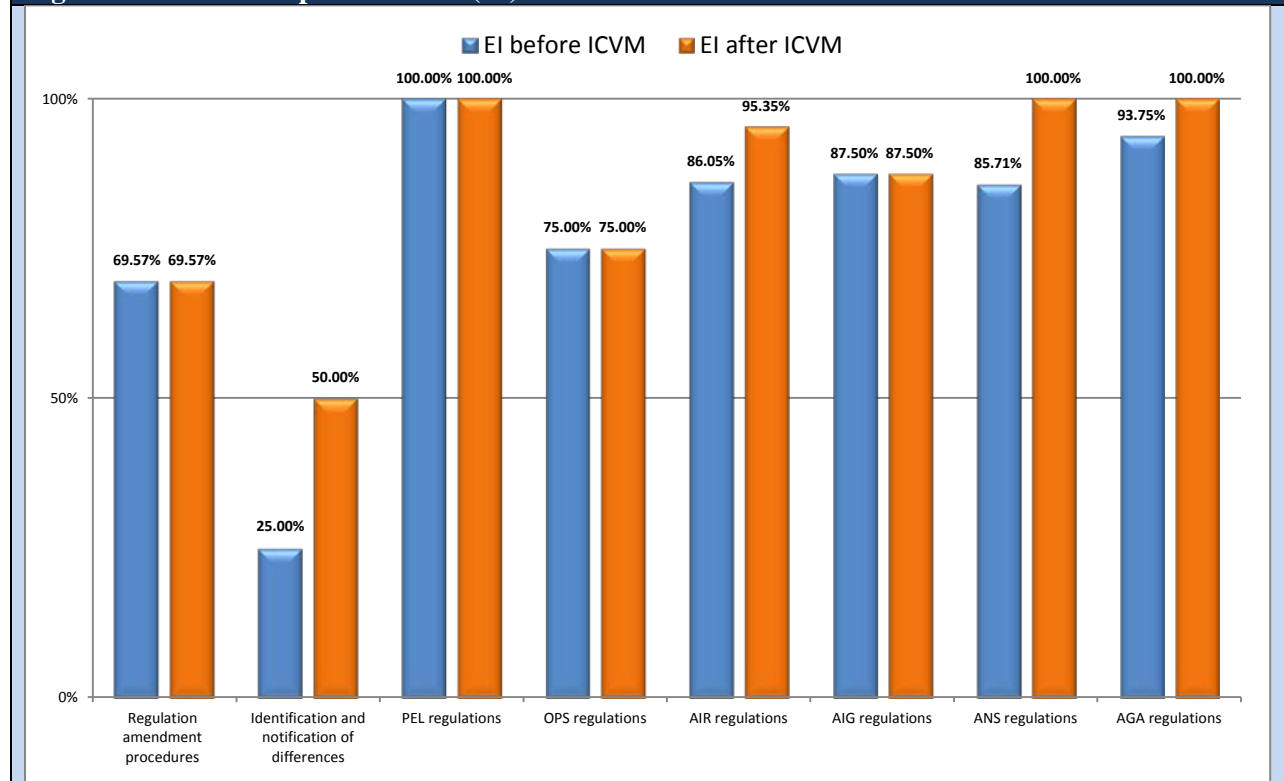
**Figure 3. Effective Implementation (%) in CE-1 sub-areas**



CE-2 Specific Operating Regulations	EI before ICVM:	80.17%
	EI after ICVM:	87.07%

*The promulgation of regulations to address, at a minimum, national requirements emanating from the primary aviation legislation, for standardized operational procedures, products, services, equipment and infrastructures, in conformity with the Annexes to the Convention on International Civil Aviation.*

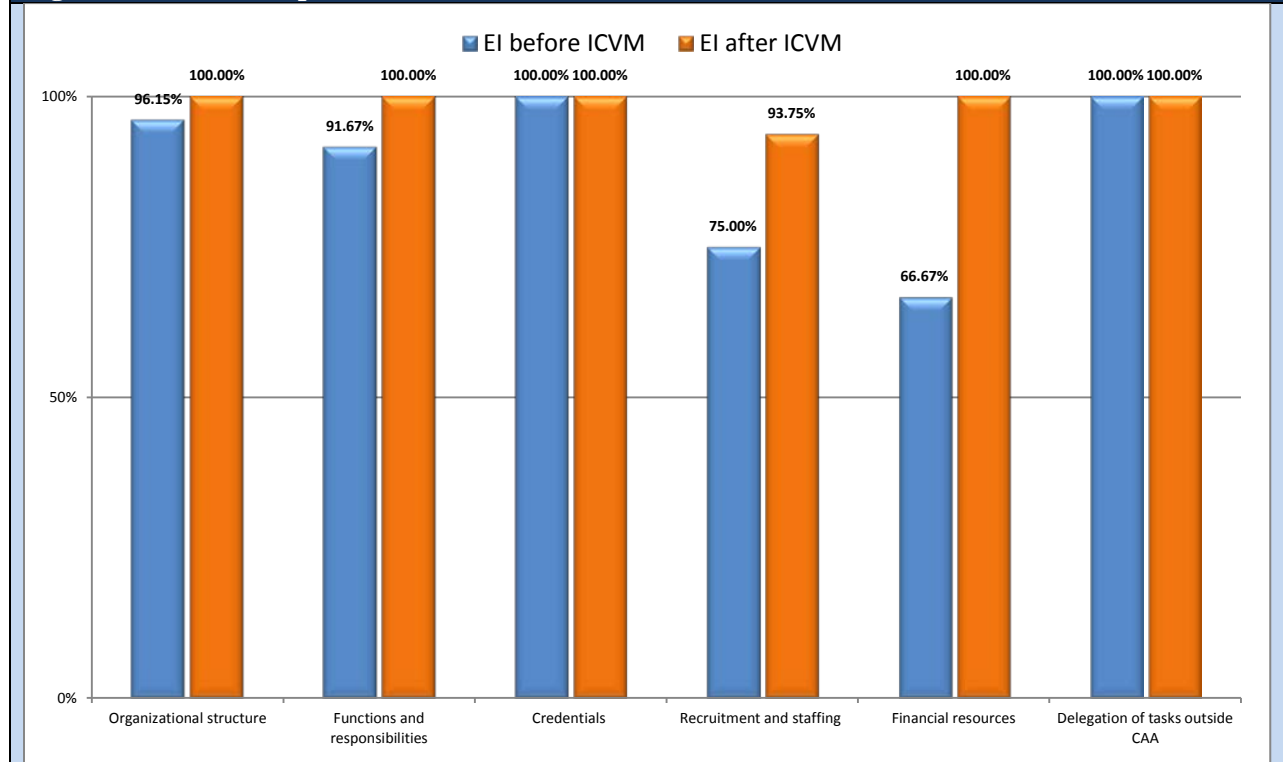
**Figure 4. Effective Implementation (%) in CE-2 sub-areas**



CE-3 State System and Functions	EI before ICVM:	90.12%
	EI after ICVM:	98.77%

*The establishment of relevant authorities or agencies, as appropriate, supported by sufficient and qualified personnel and provided with adequate financial resources for the management of safety. State authorities or agencies shall have stated safety functions and objectives to fulfil their safety management responsibility.*

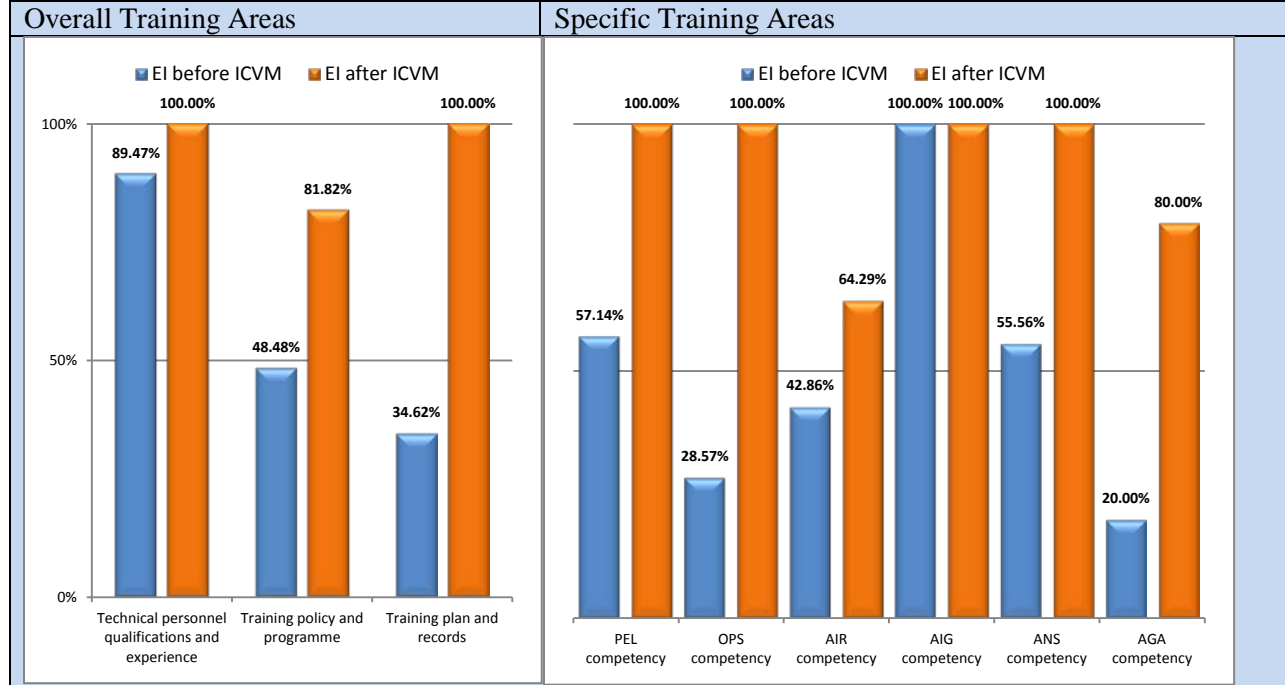
**Figure 5. Effective Implementation (%) in CE-3 sub-areas**



CE-4 Qualified Technical Personnel	EI before ICVM:	53.85%
	EI after ICVM:	92.31%

*The establishment of minimum qualification requirements for the technical personnel performing safety-related functions and the provision of appropriate initial and recurrent training to maintain and enhance their competence at the desired level. States shall implement a system for the maintenance of training records for technical personnel.*

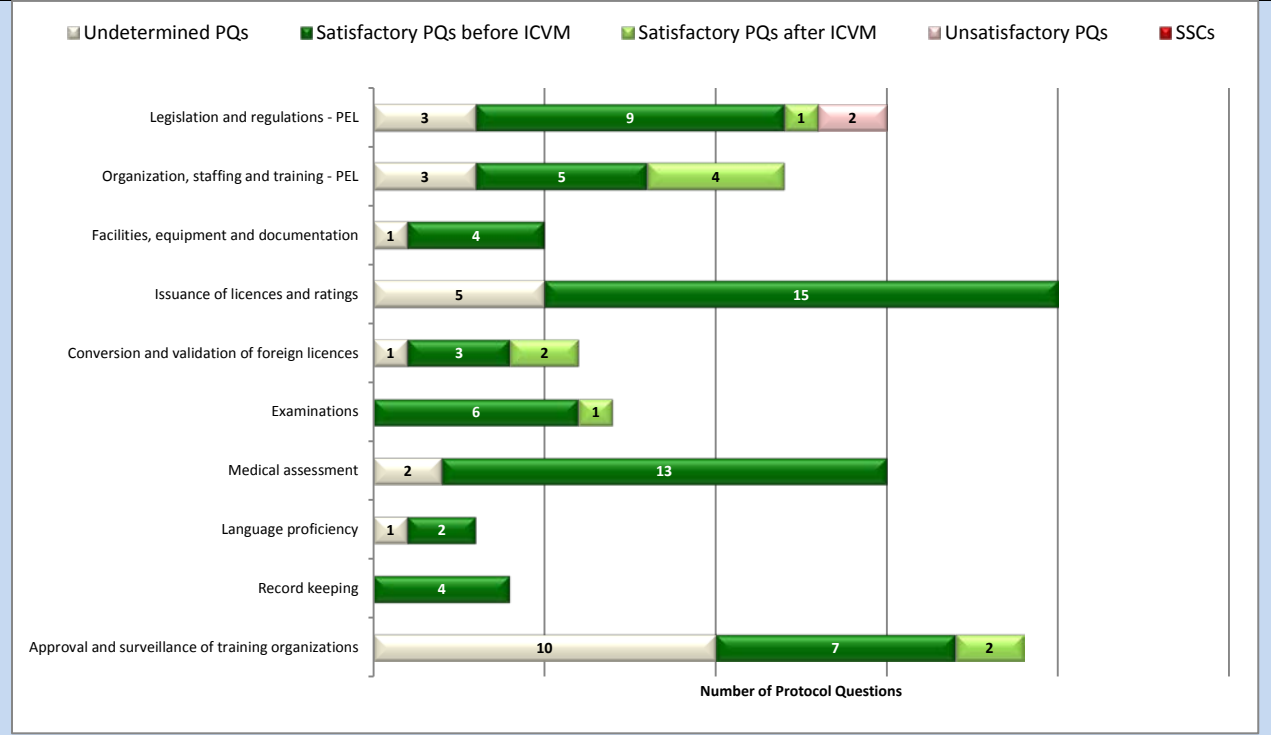
**Figure 6. Effective Implementation (%) in CE-4 sub-areas**



## Appendix 3 — Analysis of Results by Validated Areas

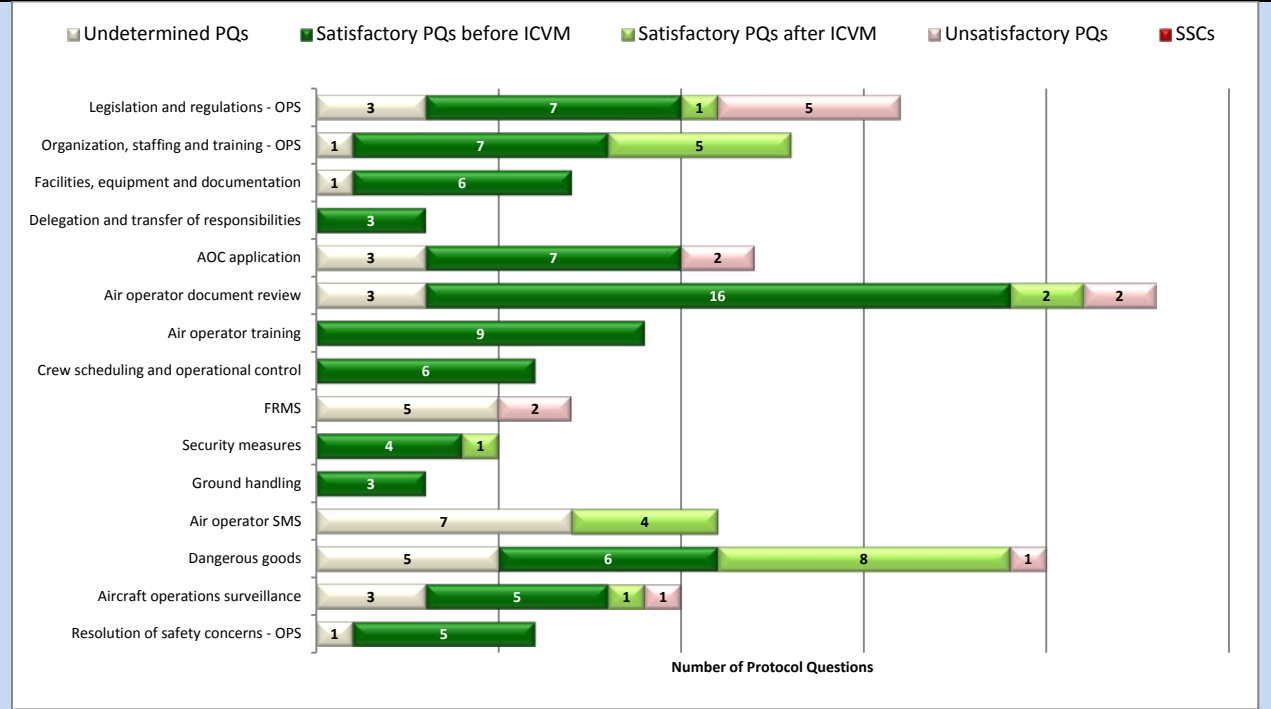
### Figure 7. Personnel Licensing and Training (PEL)

Protocol Questions by sub-area groupings



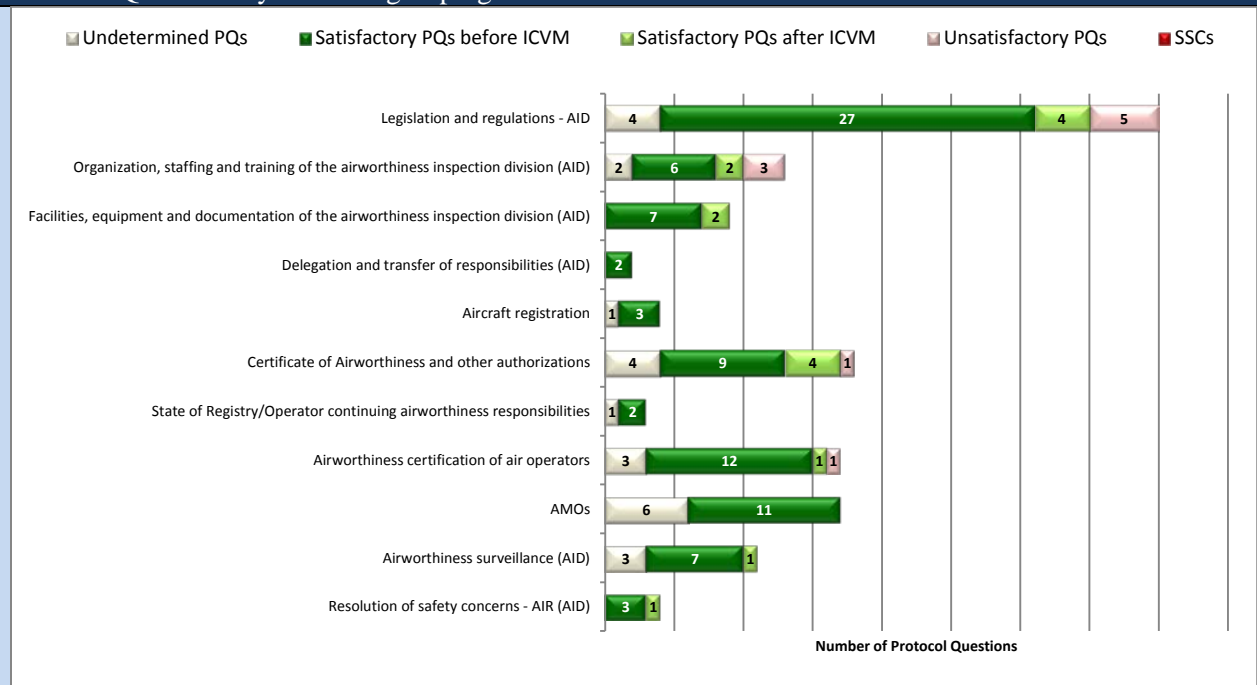
### Figure 8. Aircraft Operations (OPS)

Protocol Questions by sub-area groupings



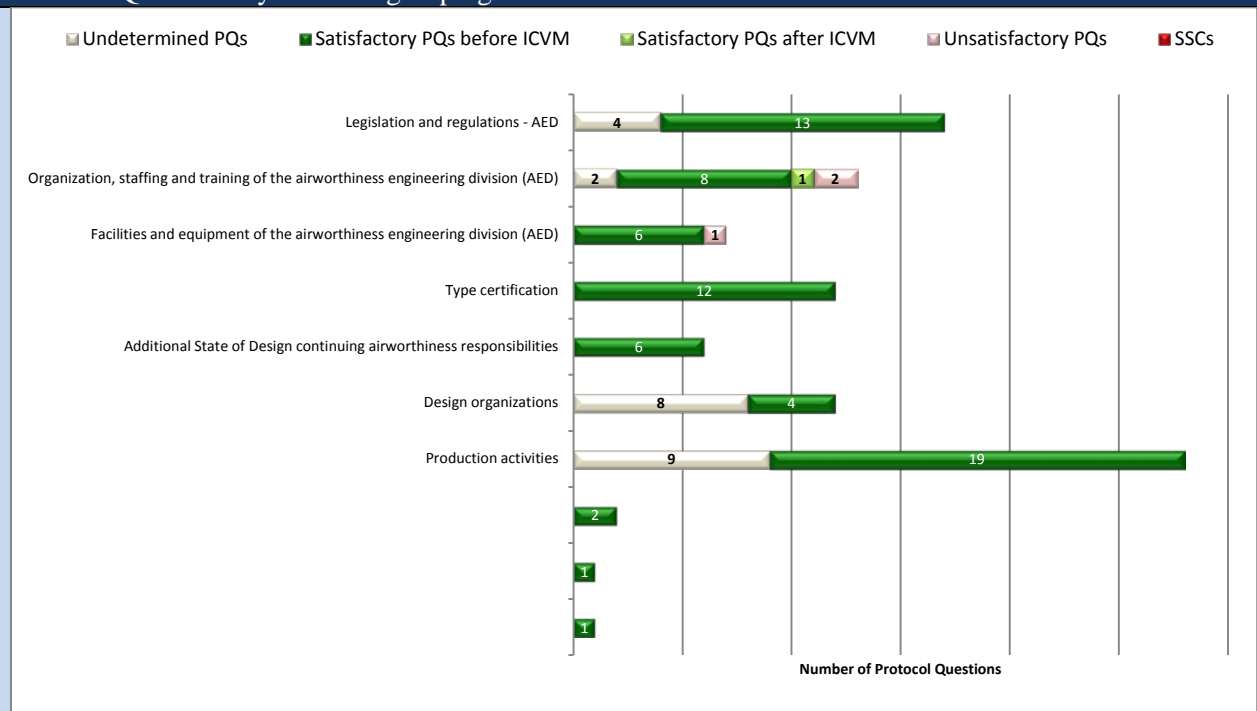
**Figure 9. Airworthiness of Aircraft (AIR) – Airworthiness Inspection**

Protocol Questions by sub-area groupings



**Figure 9.1 Airworthiness of Aircraft (AIR) – Design Certification and Production**

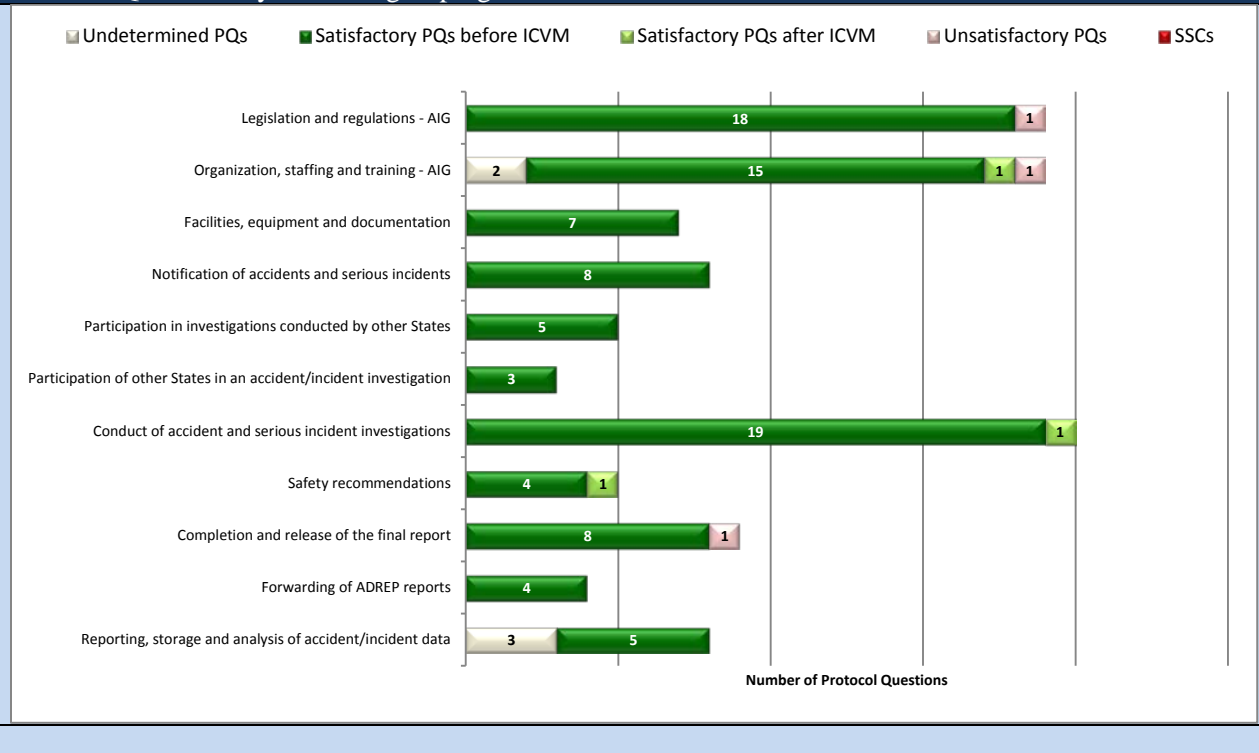
Protocol Questions by sub-area groupings





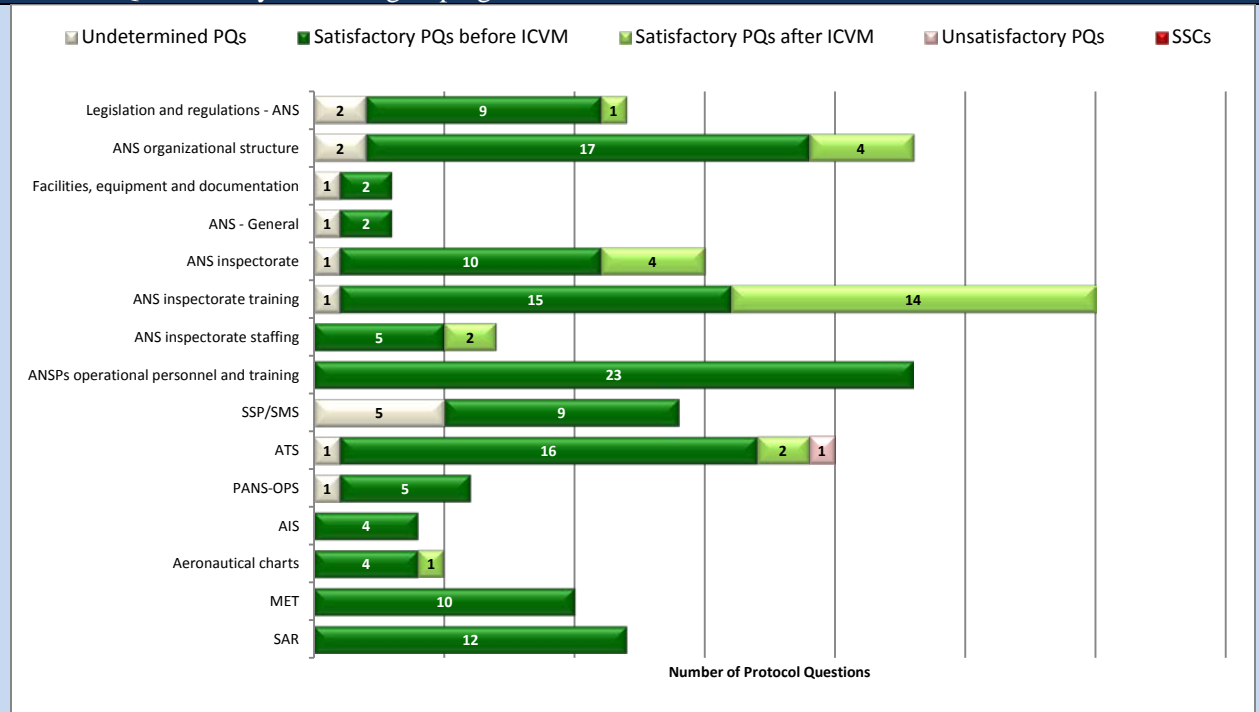
**Figure 10. Aircraft Accident and Incident Investigation (AIG)**

Protocol Questions by sub-area groupings



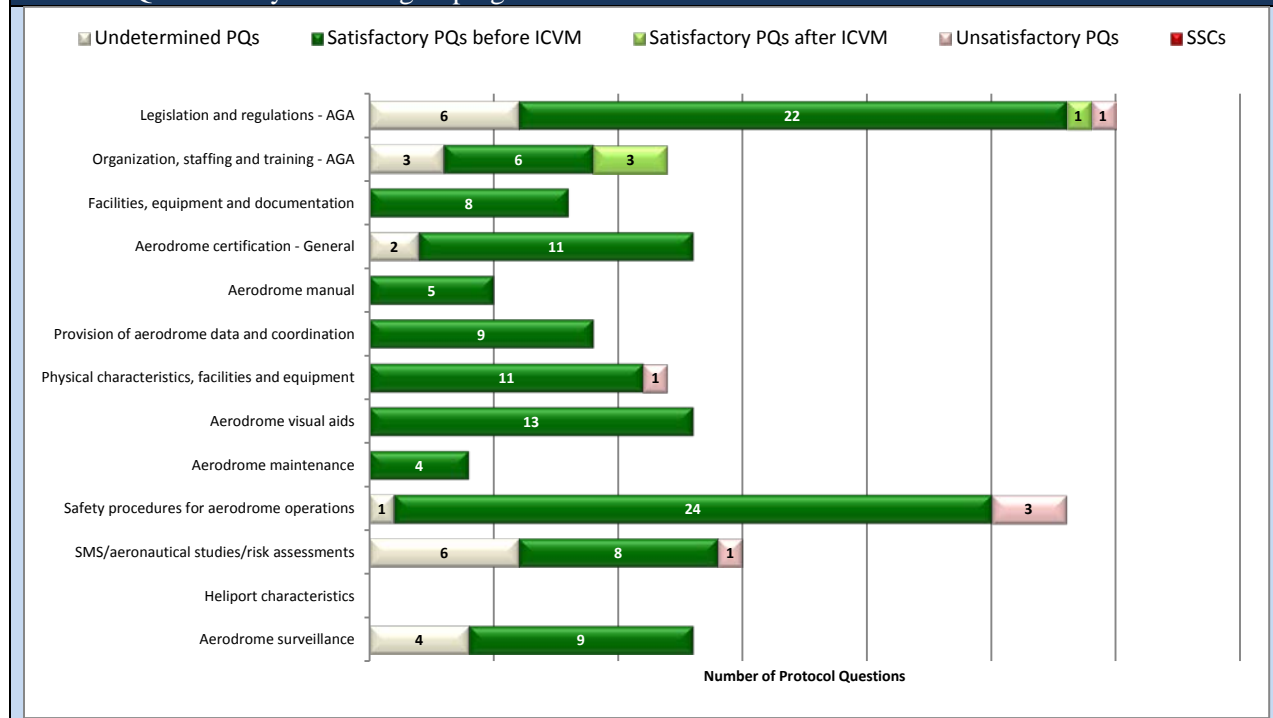
**Figure 11. Air Navigation Services (ANS)**

Protocol Questions by sub-area groupings



**Figure 12. Aerodromes and Ground Aids (AGA)**

Protocol Questions by sub-area groupings



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