



Agenda Item 4: Analysis of the safety oversight level achieved in the SAM Region

**a) Results in the application of the Universal Safety Oversight Audit Programme
(USOAP)**

**SAFETY OVERSIGHT WITHIN THE BRAZILIAN AIRSPACE CONTROL SYSTEM
(SISCEAB)**

(Presented by Brazil)

SUMMARY	
<p>This Working Paper presents the evolution in Brazil with respect to the safety oversight of the air navigation services, aiming to contribute to raise the level of implementation of critical elements of a safety oversight system in the SAM Region.</p>	
<p>References:</p> <ul style="list-style-type: none">- Doc 9734, Part A;- 2010 CSA Reporting of Audit Results, Third Edition; and- RAAC/11 Final Report.	
<p>ICAO Strategic Objectives:</p>	<p><i>A - Safety</i></p>

1. Introduction

1.1 The Eleventh Meeting of Civil Aviation Authorities of the South American Region (RAAC/11) reviewed the results of the first nine audits conducted in the SAM Region, applying a comprehensive system-approach, to identify the level of implementation of the eight critical elements (CE) of a safety oversight system (Doc. 9734, Part A), by the States, as well as the compliance with the ICAO SARPS.

1.2 On that occasion, it was stressed that the critical element CE-7, related to the surveillance obligations tasks, was among those that indicated the highest rates of lack of effective implementation. Additionally, it was noted that the highest incidence of non-compliance is within the new areas included by ICAO in the comprehensive system approach, among these, the Air Navigation Services. The results of audits in the Region showed 38.62% of non-implementation of CE-7 when considering all evaluated areas.

1.3 So, during the RAAC 11, the Conclusion 11/6 was formulated indicating that the ICAO Regional Office would conduct an analysis of the results of the USOAP audits, and also indicating possible solutions to the lack of compliance with the critical elements in the SAM Region.

1.4 In 2010 ICAO has published the results of all audits conducted from 2005 to 2010, including 13 States in the SAM Region, when it was evident that the global average of lack of implementation of the CE-7 was 43%, and the lack of implementation of such critical element within the air navigation services area was 49%.

1.5 In light of this analysis, it is clear that a State must ensure that the organization responsible for the continuous surveillance (CE-7) of certified service providers (CE-6) shall have the proper authority to perform inspections, evaluate the services performed, detect safety deficiencies, formulate recommendations, impose restrictions and suspend or revoke licenses, certificates and approvals. Thus, this organization should be able to exercise a continuous inspection process of all service providers and certified professionals to ensure that acceptable means of regulatory compliance are kept by implementing procedures that continuously foster safety in the air navigation services.

1.6 In Brazil, for the air navigation services (ANS) area, it was decided to create an Organization that is independent from the regulator unit and be responsible for a direct and immediate advisory to the Commander of the Air Force, Brazilian Aeronautical Authority for the mentioned area, and also coordinate and control the activities of the ANS safety inspections, as well as to supervise the Safety Oversight Programme of the Air Navigation Service.

1.7 Thus, in 2008, it was created ASOCEA (Airspace Control Safety Advisory Board) that is responsible for ensuring the effective implementation of the eight (08) Critical Elements of Brazilian Safety Oversight System in ANS area conducting a systematic process of surveillance of the activities performed by the Department of Airspace Control (DECEA) and by all Air Navigation Services Providers in Brazil.

2. **Safety inspections of the Brazilian ANSP**

2.1 As a result of the implementation of ASOCEA, a formal process was implemented in a similar way to that applied by ICAO when evaluating the States in the comprehensive system approach. Inspections are conducted by Inspectors of the Airspace Control (INSPCEA), using standardized checklists (the inspection protocols), by service area (ATS, AIS, CNS, MET, SAR, PANS-OPS).

2.2 In addition to the air navigation services, inspections under the new process also evaluate the medical organizations that examine periodically the health of the air traffic controllers and aeronautical telecommunications stations operators, before granting and renewing their licenses, as well as training units, responsible for training all technical staff of the Brazilian Airspace Control System (SISCEAB), using the specific protocols called Training Protocol and Health Protocol.

2.3 INSPCEA are experts from different operational units of SISCEAB which are trained in an inspector course to carry out the new inspection process. This process includes the use of standardized tools, which consist of the inspection protocols and forms, used to record the results of ANSP evaluations. If the candidate to INSPCEA is approved in the course, an OJT during an actual inspection is scheduled to be carried out, under the supervision of an accredited inspector, which is the final step that, if accomplished, qualifies the candidate as INSPCEA.

2.4 The INSPCEA staff currently consists of 195 technicians spread across all regions of Brazil. When appointed to undertake an inspection, the inspector withdraws temporarily from his duties at the operational unit where he works and shall be operationally dependent to that in charge of the coordination of the inspection. After the inspection, the inspector returns to his origin unit, going back to his normal activities.

2.5 The non-compliances identified by INSPCEA are informed, at the end of each inspection, to the inspected providers allowing them immediately start taking steps to mitigate the problems detected and its corresponding solution.

2.6 Each non compliance is evaluated, within objective criteria about its impact on safety, pointing out to the provider a reference for the preparation of its action plan for correcting the problems.

2.7 All non conformances are recorded and these records are deleted from the database only when, in a further inspection, a different INSPCEA attest the effectiveness of the corrective action adopted by the provider, upon evidence of the elimination of the deficiency identified in the previous inspection.

2.8 All information collected from the inspections is continually evaluated and reported to DECEA, providing means to improve legislation and to adopt specific measures to increase the degree of compliance with Brazilian regulations and the system's efficiency as a whole, by achieving and maintaining an appropriate level of safety.

3. **USOAP Audit Results in the Brazilian ANS area**

3.1 Among the 211 questions of the ANS Protocol applied by ICAO, in the audit conducted in Brazil, eleven questions were considered not satisfactory by the auditors, resulting in approximately 5.2% of non-implementation of the critical elements of a safety oversight system, in the ANS area, or, in other words, considerably less than the global average of 41%.

3.2 When referring specifically to the critical element CE-7, only two out of 27 questions in the existing ANS Protocol, related to the SMS implementation were considered non-compliant, resulting in a non-implementation rate around 7.4%, also significantly bellow the global average of 49%.

3.3 The three nonconformities of the Brazilian Corrective Action Plan, sent to ICAO, in the ANS area, refer to the implementation of Safety Management System (SMS), the implementation of quality management systems in AIS of international airports and the SAR personnel English language proficiency.

3.4 The treatment of the first two non conformities is in progress. Regarding the third non conformity, at present it is assured that there is sufficient SAR personnel with proficiency in the English language. Thus, compared to the results of the ICAO audit in the ANS area, in Brazil, in 2009, at the moment the lack of effective implementation of the critical elements was reduced from 5.2% to 4.7%.

4. **CONCLUSION**

4.1 Overall, the results of the ICAO Audit, in the ANS area, in Brazil, indicated that the lack of implementation of the critical elements in 2009 was 5.2% and after the implementation of the Corrective Action Plan, this percentage was reduced to 4.7%.

4.2 Regarding the critical element CE-7, the evolution of the Brazilian safety oversight system since 2008, with the establishment of a new safety inspection process of the air navigation services providers was responsible for a percentage of only 7.4% of non-implementation of this critical element, when the global average in the ANS area is 49%.

5. **Suggested Action**

5.1 The Meeting is invited to:

- a) take notice of the information contained in this Working Paper;
- b) consider the experience acquired by Brazil in the safety oversight of air navigation services as an effective alternative, if adopted by other States, to increase the level of implementation of the critical elements in the SAM Region.

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