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USOAP perspective on IFPs

Radhouan Aissaoui
RO-IM ICAO MID

Workshop on Oversight of IFPs for CAAs (Bangkok, 25 –26 March 2024)





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Outline

- 1) USOAP
 - overview
 - Audits areas and CEs
- 2) Evidence by CEs –
- 3) General PQs
- 4) IFPD PQs
- 5) Interactive session on PQs



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What is the Universal Safety Oversight Audit Programme (USOAP)?

The Universal Safety Oversight Audit Programme (USOAP) is a programme through which ICAO monitors the fulfillment of the safety oversight obligations by its Member States.

ICAO carries out audits and other monitoring activities to determine the safety oversight capabilities of its Member States.



Universal Safety Oversight Audit Programme
Continuous Monitoring Approach
(USOAP CMA)





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USOAP Audits

The approach for USOAP audits is based on:

“...the implementation of a *structured process and methodology* for the planning, preparation, conduct, reporting, follow-up and evaluation of ICAO safety oversight audits, in order to determine States’ capability for safety oversight.”

ICAO Doc 9735 and MOU signed between the State and ICAO.



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Audit Areas

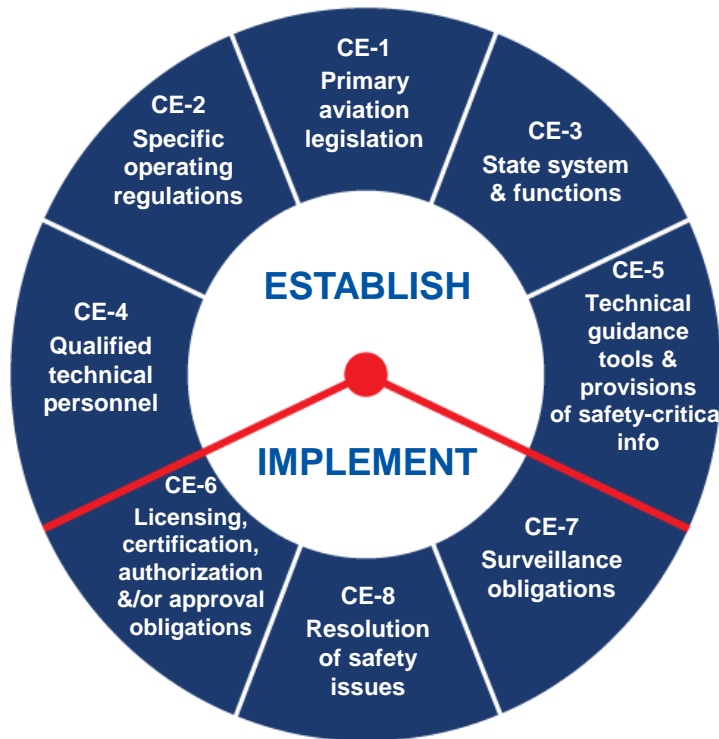




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Critical Elements (CEs) of a Safety Oversight System



Eight CEs of a State safety oversight system

- **Definitions of CEs:** in Annex 19 — *Safety Management*, Appendix 1 (2nd edition, July 2016)
- **Guidance for CEs:**
Doc 9734 — *Safety Oversight Manual*,
Part A — *The Establishment and
Management of a State Safety
Oversight System*
(3rd edition, 2017)*.
- * Available on ICAO-Net and CMA
Library of the CMA OLF.





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USOAP CMA Protocol Questions

The primary tool used in USOAP for assessing the level of effective implementation of a State's safety oversight system based on the critical elements, the Convention on International Aviation, ICAO Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services (PANS) and related guidance material.

Enable standardization in the conduct of USOAP CMA activities.

Percentage of "Satisfactory" PQs is reflected in the EI.

Evidence-based approach:

- **Show me.**
- **Lack of evidence or lack of sufficient evidence = PQ status becomes or remains N/S.**

N/S PQ generates a finding and since 2014, each finding is PQ-specific.

Give me your evidence





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Evidence by CEs - Examples

CE-1

- Legislative instruments related to civil aviation activities and established entities (laws, treaties, etc.), promulgated and published versions;
- bilateral agreements on Article 83 bis of the Chicago Convention or other equivalent topics.
- Legislation is collective term combining
 - Primary air law, binding for all citizens
 - Specific operating regulations, binding for actors and participants in aviation activity only

CE-2

- Regulatory instruments (regulations; directives); promulgated and published versions;
- procedures for the amendment of regulations;
- procedures for identifying and notifying differences, if any, to ICAO;
- copy of list of differences published in the AIP;
- (policy on the granting of exemptions and examples of granted exemptions)

Evidence by CEs - Examples

CE-3

- Documents related to nomination, delegation, cooperation, etc. (MOU, letters, etc.);
- organizational charts;
- documents describing functions and responsibilities;
- sample of job descriptions;
- sample of credentials.
- documents on the authorities funding and approved budget;
- documents on the process to determine staffing needs;
- procedure for the delegation of tasks to other entities or individuals;
- letters of nomination or designation with respect to the delegation of tasks

CE-4

- Document defining the minimum qualification and experience requirements;
- document on the recruitment process;
- training policy;
- training programmes;
- training plans;
- completed OJT forms;
- documents on the system for keeping training records (copies of training records are not required).



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Evidence by CEs - Examples

CE-5

- Process or procedure for making necessary documents available to technical staff (annexes to the CC, regulations, etc.), document control and/or system for maintaining the documents up-to-date;
- handbooks, procedures, checklists and other guidance material;
- guidance provided to the industry;
- link to the electronic version of the AIP;
- Ensure that procedures provide sufficient detail on WHO does WHAT, WHEN, HOW and in coordination with WHOM



Evidence by CEs - Examples

CE-5

- Procedures should provide sufficient details on WHO does WHAT, HOW, WHEN, and in coordination with WHOM:
- WHO: Define the entities in charge of each task, who has the authority to decide, particularly with respect to enforcement aspects, who has the authority to approve the results, reports, etc. or to sign licenses, certificates, etc.
- WHAT: Define each step of the process, indicate the expected result and the template/format to be used; Establish the link with other procedures, if any.
- HOW: Indicate sequence of actions, equipment/tools to used, reference to applicable checklists; Describe the means of traceability of the activity.
- WHEN: If the procedure is part of a process, the step of the process at which the said procedure takes place; indicate the periodicity and the maximum interval between two actions and the deadline for completion of each step.
- with WHOM: Identify external entities participating in the activity, if any.



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Evidence by CEs - Examples

CE-6

- Completed check-lists used for licensing/ certification/ approval and/or authorization processes
- Issued licences, certificates, approvals and/or authorizations;
- Copies of exchange of letters with the industry

CE-7

- Surveillance policy;
- surveillance programme and plans
- Copies of inspection or audit reports and/or monitoring activities.

Evidence by CEs - Examples

CE-8

- Processes, procedures, checklists
- Exchange letters with the industry regarding deficiencies and corrective actions
- Enforcement procedures
- Evidence of actual enforcement actions (imposed fines or restriction/limitations, suspended or revoked licences/certificates/ approvals/authorizations)



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CE-1	<ul style="list-style-type: none">• Laws, treaties• Bilateral agreements on Article 83 bis of the Chicago Convention
CE-2	<ul style="list-style-type: none">• Regulations, directives• Procedures for the amendment of regulations;• Procedures for identifying and notifying differences, if any, to ICAO
CE-3	<ul style="list-style-type: none">• Documents related to nomination, delegation, cooperation, etc. (MOU, letters, etc.);• Organizational charts;• Documents describing functions and responsibilities;• Sample of job descriptions; Sample of credentials;• Budget decisions• Documents on the process to determine staffing needs
CE-4	<ul style="list-style-type: none">• Document defining the minimum qualification and experience requirements• Training policy, programmes, training plans;• Completed OJT forms, Training records

CE-5	<ul style="list-style-type: none">• Manuals, Handbooks• Procedures• Checklists
CE-6	<ul style="list-style-type: none">• Completed check-lists used for licensing/ certification/ approval and/or authorization processes• Issued licences, certificates, approvals and/or authorizations;• Copies of exchange of letters with the industry
CE-7	<ul style="list-style-type: none">• Surveillance policy;• surveillance programme and plans• Copies of inspection or audit reports and/or monitoring activities;
CE-8	<ul style="list-style-type: none">• Exchange letters with the industry regarding deficiencies and corrective actions• Enforcement procedures• Evidence of actual enforcement actions (imposed fines or restriction/limitations, suspended or revoked licences/certificates/ approvals/authorizations;



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General



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.031	Has the State established an organizational structure with functions related to the safety oversight of ANS providers?	<ol style="list-style-type: none">1) Confirm current approved organizational structure for CAA and ANS safety oversight, including clear functions and responsibilities and reporting lines.2) Note names and acronyms of the established authorities and each section dealing with ANS safety oversight activities.3) Cross-check State Aviation Activity Questionnaire (SAAQ).	GM Doc 9734 Part A, C3		CE-3



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.037	Has the State developed procedures to assist ANS inspectors in carrying out their safety oversight functions in a standardized and effective manner?	1) Verify that inspector's procedures and checklists are detailed and based on the State's requirements. Note to the auditor: Procedures may be compiled into an inspector's handbook or manual.	GM Doc 9734 Part A, C3		CE-5



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.039	Are the relevant ICAO documents and other technical and regulatory publications readily available to all ANS inspectorate personnel?	<ol style="list-style-type: none">1) Verify accessibility of the following documents:<ol style="list-style-type: none">a) Primary aviation legislation and ANS specific operating regulations.b) Annexes 1, 2, 3, 4, 5, 10, 11, 12 and 15.c) PANS, guidance material and other ANS-related publications.d) World Meteorological Organization (WMO) documentation.e) Other technical/regulatory publications.1) Review the document control system and method to determine currency of documents. <p>Note to the auditor: Check for field/regional offices as well as Headquarters.</p>	GM Doc 9734 Part A, C3		CE-5



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.042	Have ANS inspectors been issued credentials to facilitate access to ANS facilities in the State and access to service providers' documentation for the purpose of inspections and enforcement?	<ol style="list-style-type: none">1) Review credentials to ensure: 1) Reference to empowering legislation.2) Method established to control currency of credential.3) Inspector's photo.	GM Doc 9734 Part A, C3		CE-3



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.051	If the State is involved in the provision of ANS, is there a distinct separation between the regulatory and the service provision functions for all fields in ANS?	<ol style="list-style-type: none">1) Review the organizational structure and confirm effective separation of regulatory function from service provision functions for:2) Air traffic services,3) Aeronautical information services (including cartography),4) Flight procedures design service,4) CNS services,5) Meteorological service, and6) Search and rescue services. <p>Note to the auditor: If a “functional” separation is in place, the State must demonstrate that the regulatory function operates completely independently, including the use of enforcement actions..</p>	GM Doc 9734 Part A, C2		CE-3



PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.109	If the State has initiated the implementation of performance-based navigation (PBN), are the prescribed navigation specifications appropriate to the level of communications, navigation and air traffic services?	<ol style="list-style-type: none">1) Where applicable, review the mechanism for safety assessments to be conducted before and after implementation.2) Where applicable, review documented evidences that the safety of the system is assured:<ol style="list-style-type: none">a) Procedure design capabilitiesb) Flight plan adopted for PBN (letter “R” in item 10)c) World Geodetic System - 1984 (WGS-84) implementation.	STD A11 2.7 PANS Doc 4444 (ATM) App. 2 GM Doc 9613		CE-7



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.110	Does the State ensure that ATS routes and significant points are established and designated in accordance with the requirements of Annex 11?	<ol style="list-style-type: none">1) Review mechanism to ensure implementation of principles set forth in Annex 11.2) Verify the process implemented for coordination with ICAO Regional Offices (including the elimination of five-letter name-code (5LNC) duplicates).	STD A11 2.13 & 2.15 App. 1, App. 2 & App. 3		CE-6



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PANS-OPS -> IFPD



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.201	Has the State promulgated regulations as bases for instrument flight procedures design?	<ol style="list-style-type: none">1) Verify regulatory requirements.2) If criteria other than Doc 8168, Vol. II are used, verify that they provide an equivalent level of safety.	STD A11 2.34 & App. 7, 3 GM Doc 10068 2.1.3		CE-2



PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.205	Has the State established for flight procedures inspectors: a) job descriptions; b) appropriate minimum qualifications; and c) experience requirements?	<ol style="list-style-type: none">1) Review job descriptions for flight procedures inspectors (including tasks related to the approval process of flight procedures).2) Verify that qualifications criteria include: a) aeronautical certificates commensurate with their job responsibilities, and b) operational and technical work experience compatible with the activities they are required to perform.	GM Doc 9734 Part A, C3 Doc 10068 2.1.4 & 2.1.5		CE-3



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.209	Does the flight procedures inspectorate have sufficient human resources to carry out its functions?	<ol style="list-style-type: none">1) Review ability to attract new inspectors as well as existing vacancies and level of turnovers in past years.2) Review methodology established for determining staffing needs to carry out all safety oversight-related tasks including: a) review and revision of regulations, b) training, c) development of guidance material, d) issuance of approvals, e) conducting of surveillance, and f) resolution of identified safety concerns. <p>Note to the auditor: This PQ is linked to ORG PQ 2.053.</p>	GM Doc 9734 Part A, C3 Doc 10068 2.1.4		CE-3



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.211	Has the State developed a formal training programme detailing the type of training to be provided to its flight procedures inspectors?	<ol style="list-style-type: none">1) Review contents of training programme.2) Confirm inclusion of initial, on-the-job, recurrent and specialized training, including timelines to be provided, as applicable.	GM Doc 9734 Part A, C3 Doc 10068 2.1.5		CE-4



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.215	Is the training programme appropriately implemented for flight procedures inspectors?	<ol style="list-style-type: none">1) Review most recent training plan.2) Verify that the most recent training plan is in accordance with the programme and includes: a) Detailed training types; b) Priorities; and c) Time frames.3) Verify that each inspector's training is detailed.4) Verify that the type and frequency of training provided (initial, OJT, recurrent and specialized) is sufficient to acquire/maintain the required level of knowledge, skills, competence and qualifications in accordance with the duties and responsibilities assigned to each technical staff member.5) Verify that OJT is provided by an experienced senior inspector.	GM Doc 9734 Part A, C3 Doc 10068 2.1.5		CE-4



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.229	Does the State ensure that appropriate minimum qualification requirements for flight procedures designers are met?	<ol style="list-style-type: none">1) Review the mechanism established to ensure effective implementation.2) Review qualifications required for new procedures design staff.	GM Doc 9734 Part A, C3 Doc 10068 2.1.7.4		CE-6



PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.231	Has the State established and implemented a formal surveillance programme for the continuing supervision of the instrument flight procedure design service (IFPDS) provider?	<ol style="list-style-type: none">1) Review that surveillance programme includes:<ol style="list-style-type: none">a) Types of surveillance activities (audits, inspections, safety events analyses, etc.),b) Time frames or frequency of the activities, andc) Scope of the activities.1) Confirm if plan is in compliance with surveillance programme, including unannounced and follow-up inspections (Implementation may be adapted using a risk-based method).2) Sample checklists and audits/inspections reports of previous and current years.	GM Doc 9734 Part A, C3		CE-7



PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.233	Has the State established and implemented a mechanism/system with time frame for elimination of deficiencies identified by flight procedures inspectors?	<ol style="list-style-type: none">1) Review the list of deficiencies that have been identified through surveillance and the remedial actions planned or taken.2) Review mechanism to advise, establish deadlines, review and accept, and follow up on actions to verify effective implementation of corrective action plans (CAPs).3) Review effective resolution of safety issues or appropriate enforcement (commensurate with the safety risk).	GM Doc 9734 Part A, C3		CE-8



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.234	Does the State ensure that instrument flight procedures (IFPs) are reviewed periodically (including validation) to ensure that they continue to comply with changing criteria and meet user requirements?	<ol style="list-style-type: none">1) Review mechanism established to ensure effective implementation.2) Sample documentation regarding periodic reviews done and verify that they are still valid in terms of minimum obstacle clearances.3) Confirm that maximum interval for review is five years.	PANS Doc 8168 (OPS) Vol. II, Part 1, Section 2, C4 STD A11 App. 7, 6	Yes	CE-7



PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.243	Does the State ensure that the flight procedure designers of the service providers are properly trained for their assigned functions and tasks?	<ol style="list-style-type: none">1) Review mechanism established to ensure effective implementation.2) Review documented training programme and verify if it includes, when applicable, initial, recurrent or specialized training.3) Review method used by the State to confirm that training records are maintained.	PANS Doc 8168 (OPS) Vol. II, Part I, Section 2, C4, 4.7 GM Doc 9734 Part A, C3 Doc 9906 Vol. 2		CE-7



PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.247	Does the State ensure that all IFPs comply with measures that control the quality of the process (including obstacles check)?	<p>1) Review mechanism established to ensure effective implementation.</p> <p>2) Verify reports and results of flight validations (including assurance that adequate obstacle clearance has been provided).</p> <p>3) Review how the State ensures that IFP packages also include a list of relevant obstacles and identification and description of controlling obstacles.</p>	<p>STD A11 App. 7, 5 PANS Doc 8168 (OPS) Vol. II, Part I, Section 2, C4, 4.1.2 & 4.6.1 Doc 9906 Vol. 1 & Vol. 5</p>	Yes	CE-6



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.249	Does the State ensure that the IFPDS provider publishes obstacle clearance altitude/height (OCA/H)?	<ol style="list-style-type: none">1) Review mechanism established to ensure effective implementation.2) Review AIP AD 2.24 to see if published.3) If aerodrome operating minima have been established by the State, verify if they are shown.	STD A4 11.10.7.2 A11 2.23 PANS Doc 8168 (OPS) Vol. II, Part I, Section 4, C5, 5.4 & C9, 9.4.3.1	Yes	CE-6



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.253	Does the State ensure that flight procedures are in accordance with the criteria promulgated by the State?	<p>1) Review mechanism established to ensure effective implementation.</p> <p>2) Verify that AIP procedures have been approved in accordance with the criteria promulgated by the State.</p> <p>3) Sample approval records, as applicable:</p> <ul style="list-style-type: none">a) SID procedures (departures and arrivals)b) Approach proceduresc) Circling proceduresd) En-route procedurese) Holding proceduresf) Noise abatement proceduresg) Altimeter setting proceduresh) Procedures for simultaneous operations on parallel runways.i) Procedures for SSR and transponder.	<p>STD A11 2.34 & App. 7 PANS Doc 8168 (OPS) Vol. II GM Doc 9906 Vol. 1, 7.10</p>	Yes	CE-6



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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.255	Does the State ensure that IFPDS providers retain all procedure design documentation, so as to allow any data anomalies or errors found during the production, maintenance or operational use of the procedure to be corrected?	<ol style="list-style-type: none">1) Review mechanism established to ensure effective implementation.2) Review procedures, working files, documentation and data.	PANS Doc 8168 (OPS) Vol. II, Part I, Section 2, C4, 4.5.2		CE-7



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Interactive session on PQs related to IFPs





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