



DATA INTELLIGENCE FOR COMPREHENSIVE MONITORING OF CAPS IN THE USOAP CMA:

THE EXPERIENCE OF EL SALVADOR

AGENDA ITEM

Agenda Item 3: Status of EI and USOAP CMA

Presented by:

Republic of El Salvador



THE OLF AND INTERNAL NEED

The effective management of the audit cycle under the USOAP Continuous Monitoring Approach (USOAP-CMA) represents an ongoing challenge for Civil Aviation Authorities, particularly regarding the coordination and timely follow-up of Corrective Action Plans (CAPs).



» ICAO's Official OLF Platform.

The USOAP CMA Online Framework (OLF) is the official mechanism for the submission, update, and validation of self-assessments, Protocol Questions (PQs), and Corrective Action Plans (CAPs).

It provides an overall view of the State's compliance status before ICAO and the international community.

» Multidisciplinary Internal Coordination.

The execution of CAPs involves multiple technical and administrative departments.

To prevent delays, the NCMC requires detailed internal planning mechanisms, continuous monitoring, alerts, and a clear assignment of responsibilities.



FROM A REACTIVE APPROACH TO CONTROL

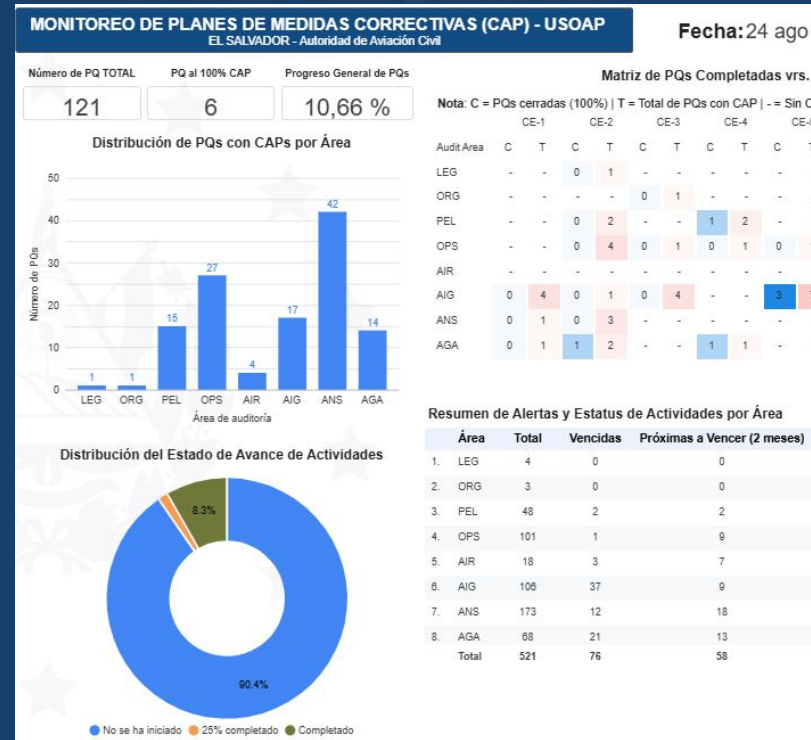
- » **Risk of a Reactive Approach:** The lack of periodic monitoring results in management efforts being focused solely on approaching deadlines or on the eve of ICAO audits.
- » **Timely Identification:** Enables the early detection of bottlenecks, interdepartmental dependencies, and resource shortfalls before State compliance is compromised.
- » **Evidence Updating:** Identifies actions that have already been executed operationally but have not yet been uploaded or updated in the OLF.

EL SALVADOR'S METHODOLOGY

» **Exportable Data from the OLF:** Official data is extracted from the OLF and consolidated using internal validation rules.

» **Accessible Tools:** Utilization of open-access or low-cost analytics platforms (Data Studio/Looker Studio, dynamic spreadsheets).

» **Dashboards and Indicators:** Creation of executive dashboards and visual alerts that facilitate data-driven decision-making without replacing the OLF.



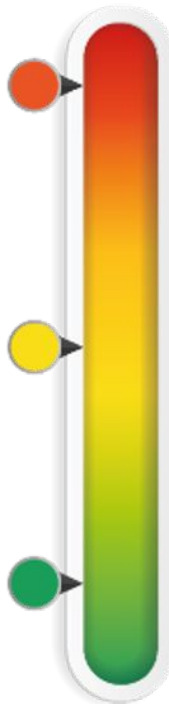
DASHBOARD PILLARS

» **Early Warnings:** Automatic identification of criticality levels to mitigate risks before the formal expiration of established commitments.

» **Area-by-Area Follow-up:** Qualitative and quantitative progress monitoring (0% to 100%) across each technical area (LEG, ORG, PEL, OPS, AIR, AIG, ANS, AGA).

» **OLF Synchronization:** Immediate notification to responsible departments to log completed activities into the ICAO platform.

The model automatically categorizes the status of each CAP:



RED LEVEL: Overdue Activities. Immediate attention required. Identifies institutional bottlenecks and lack of evidence registered in the OLF.

YELLOW LEVEL: Short-Term Alert. Due soon (2 months). Allows for resource reallocation and expediting documentation prior to the stipulated deadline.

GREEN LEVEL: Preventive Control. Medium and long-term monitoring (6 months). Maintains a steady implementation flow in accordance with State planning.

SUSTAINABLE SYSTEM VISION

- » **Ongoing Oversight:** The utility of data analytics extends beyond the post-audit phase, becoming a daily management practice.
- » **Expansion to Protocol Questions (PQs):** The methodology expands toward the periodic review and updating of PQ self-assessments.
- » **Oversight Indicators:** Supports the monitoring of safety indicators and the proactive preparation of supporting evidence.
- » **Technological Adaptability:** Each State can select the tools that best fit its institutional capacity without imposing a one-size-fits-all solution.



REGIONAL STRENGTHENING IN THE NACC REGION

- » **Voluntary Exchange:** Promote the transfer of experiences, methodological criteria, and reference models among States in the NAM/CAR regions.
- » **Working Mechanisms:** Channel support through the NCMC Working Group (NCMC/WG), ad hoc groups, and NACC Regional Office workshops.
- » **Specialized Training:** Enhance the competencies of NCMCs and technical teams in data analytics and OLF management.



ACTION PROPOSED TO NCMC/09

The Ninth Meeting of National Continuous Monitoring Coordinators (NCMC/9) is invited to:

Recognize good practices: Take note of El Salvador's experience and recognize the use of data analytics and visualization for the continuous monitoring of CAPs.



Urge the NACC Office: Facilitate the regional exchange of methodologies, tools, and experiences regarding the internal follow-up of CAPs and the updating of the OLF.



Encourage training: Promote specialized workshops on data visualization, CAP follow-up, and OLF management aimed at NCMCs and technical teams.



Expand application: Consider the use of these methodologies for the periodic review of Protocol Question (PQ) self-assessments and State information.



**THANK YOU FOR YOUR
ATTENTION**





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