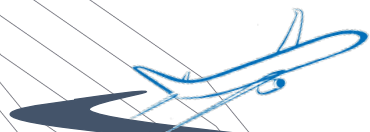# Implementation of the Safety Oversight System (SOS) Improvement Project
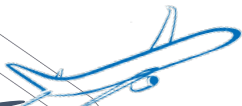
## State of Costa Rica 2024
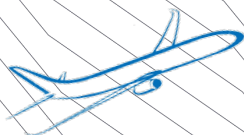
**Purpose of the presentation.**

- Description of the SOS Project for the NAAC States.
- Analysis of the implementation of the SOS project in Costa Rica.
- Opportunities and challenges of the SOS Project.

# The Operational Oversight System (SOS) Project

It is an operational assessment program to determine the assistance required by the States and coordinate technical support through a group of trained and qualified experts for events such as:

- Preparing for a USOAP (ICAO), IASA (FAA), SAFA (EASA) and IOSA (IATA) audit. Achieving a better understanding of the scope of the Protocol Questions (PQ).

- Improving negative indicators as a result of a self-assessment of the State.

- Gathering operational safety data and information on operational safety.

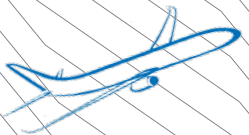- Determination of the State's safety risk profile under the USOAP CMA.

# The Operational Oversight System (SOS) Project

## Evaluation Tool

The project developed the Cross Reference Document Evaluation Tool (CRDET) for the different audits.

The CRDET is a master guide based on the USOAP CMA and IASA checklists that helps to improve audit techniques and to have a better understanding of them by the States.
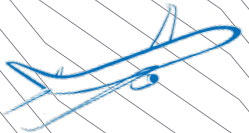
- LEG CRDET
- ORG CRDET
- AIR  CRDET
- PEL CRDET
- OPS CRDET

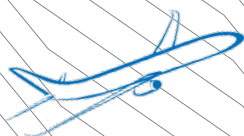## SOS Project - Implementation in Costa Rica
## Background

- The State of Costa Rica was subject to a full ICAO USOAP CMA audit in 2006.

- In 2018 the State of Costa Rica was subject to an IASA audit by the FAA, suffering a de-categorization in 2019 for not complying with ICAO standards for aviation operational safety.

- Following collaborative efforts with FAA authorities, the State of Costa Rica successfully regained its Category 1 status for operational safety according to U.S. authorities' assessment.

- For the year 2023, a new USOAP CMA audit is proactively requested to ICAO for the Costa Rican State. This audit is scheduled for 2025.

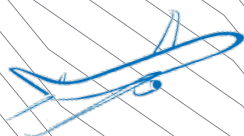# SOS Project - Implementation in Costa Rica
## Background

- The State of Costa Rica began the preparation work for the audit, establishing a work strategy that includes the following elements:

    - Initial Diagnosis or completion of the self-assessment of the audit protocol using the 2020 protocol.

    - Validation of the self-assessment performed.

    - Audit simulation.

    - Generation of Corrective Action Plans (CAPs) to comply with the Protocol Questions (PQs).
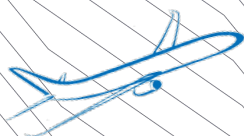
# SOS Project - Implementation in Costa Rica

- By October 2024 the SOS project has been implemented in the following areas of the Civil Aviation Authority of the State of Costa Rica:

  - Airworthiness (AIR).
  - Personnel Licensing and Training (PEL).
  - Legislation and Organization (LEG/ORG).
  - Aircraft Operation (OPS).

# SOS Project - Implementation in Costa Rica

- The purpose of this project is to promote in Costa Rica an effective implementation of the ICAO Standards and Recommended Practices (SARPs) using the CRDET with the methodologies contained in this tool.

- The SOS project started in the State of Costa Rica in November 2023 first with the AIR unit and the areas of ORG and LEG, continuing later in March 2024 with PEL and in August of this year with OPS. Thus, concluding the areas covered by the SOS project.

- In general terms, during the mission, alternative solutions to issues that did not fully comply with ICAO provisions were discussed, as well as areas for improvement and updates to the self-assessment protocols prepared by the State.

- The purpose of the State of Costa Rica is not only to prepare for the 2025 audit, but also for the CRDET to become a tool to ensure compliance with more important audits to which the country is subject.
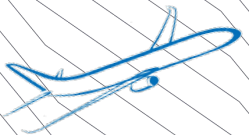
# SOS Project - Implementation in Costa Rica

To establish a comparison, the following table shows the results obtained by the State of Costa Rica from the self-assessment and the results achieved after the assistance of the SOS Project

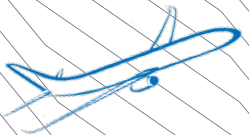| Area | PQs before SOS (Self Assessment) | | PQs after SOS | |
|---|---|---|---|---|
| | Open Status | Closed Status | Open Status | Closed Status |
| **OPS** | 40% | 60% | 90% | 10% |
| **AIR** | 40% | 60% | 44% | 56% |
| **PEL** | 50% | 50% | 30% | 70% |
| **ORG** | 10% | 90% | 20% | 80% |

# SOS Project - Implementation in Costa Rica

- Due to the effectiveness of the SOS project, the Costa Rican government has formally requested the ICAO Regional Office to collaborate with experts in the following areas, which will also be audited.

  - Aerodromes and Ground Aids (AGA).
  - Air Navigation Services (ANS).

- The State of Costa Rica has formally made the request to consider the AVSEC areas within the SOS Project.
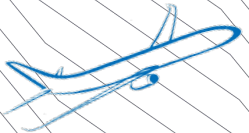
# SOS Project - Implementation in Costa Rica

- For each of the areas evaluated in the project, the ICAO expert issued a report with general recommendations for each area and other specific recommendations according to the protocol questions applicable to each auditable unit.

- As an example, the SOS project has recommended the following actions to the Costa Rican government:

  - Improving the technical registration system of aircraft registered in the state, establish the corresponding procedures.

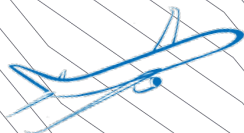  - Improving the DGAC training program and its implementation.

# SOS Project - Implementation in Costa Rica

- As an example, the SOS project has recommended the following actions to the Costa Rican government:

  - Pursuing the necessary legal tools to expedite the hiring of technical personnel necessary for the fulfillment of the State's obligations.

  - Improving the legislation on sanctions, updating the penalties according to their severity.

  - It is crucial to review and update the manual of positions and functions to ensure that all inspectors meet consistent and equitable standards, guaranteeing the integrity and quality of supervision.

# SOS Project - Implementation in Costa Rica

- As part of the follow-up of the project after each of the missions established in Costa Rica, the SOS requests that an action plan be established for the recommendations made by the expert in charge of each mission.

- If the State has any doubts about the implementation of the action plan, how to address the Protocol Questions (PQs), or if there is a need for any expert guidance, the SOS Project has been complemented by the Systemic Assistance Program (SAP) of the NACC Regional Office.

- Both projects are being executed in the State of Costa Rica and have achieved relevant benefits for the preparation of the USOAP CMA audit.
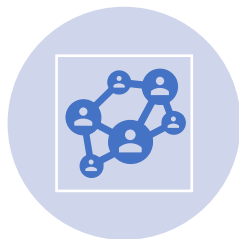
# SOS Project - Implementation in Costa Rica
## General Project Experience-Effectiveness

Planning and coordination among the various stakeholders involved were important elements for advancing the SOS project.
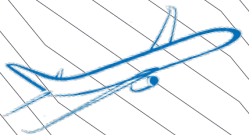
The CRDET tool fulfills the purpose of linking the USOAP, IASA questions and provides a relevant approach to be considered for future audits.

The leader of each mission has extensive experience, and this facilitates the coverage of the audit topics.

Important findings were identified, which are being worked on under the specific action plans for each of them.

# SOS Project - Implementation in Costa Rica
## General project experience-Challenges

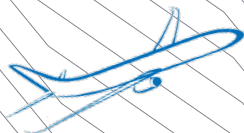Lack of staff to dedicate two weeks full time to the SOS audit.

The understanding of the methodology used in the audit.

Do not have the documentation that was requested during the mission, even if a self-assessment was done prior to the SOS project, the use of CRDET and IASA questions had not been considered

Adapting to the teamwork required by the CRDET, since, as there is transversality in the protocol, it is necessary to work among the different areas.

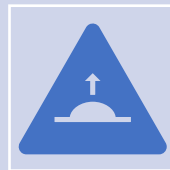# SOS Project - Implementation in Costa Rica
## Items for Improvement

The State must adequately train the team that will attend the USOAP CMA audit, including the topic of audits in general, correct completion of the information in the EFOD, how to upload evidence for the Protocol Questions (PQs), among other aspects.

The State must improve time management during the work sessions, involving more personnel and technological resources. It would be advisable to ensure the timely allocation of these resources from the beginning and to have a team with adequate training to meet the technical challenges.

Strengthening internal communication channels would allow for greater coordination and alignment of efforts, avoiding misunderstandings and ensuring that all teams are aware of the progress and challenges of the work.

Establishing more robust monitoring and evaluation mechanisms, including periodic progress reviews, to detect early problems and make necessary adjustments in a timely fashion.

# SOS Project - Implementation in Costa Rica
## Recommendations

To reap the benefits of the SOS Project, it is necessary to have first performed a complete self-assessment of the protocol, including the preparation of evidence.

Avoiding excessive subjectivity by eliminating value judgments and ensuring a clear understanding of the standards in each State and the functioning of their respective processes.

The improvement of interdepartmental communication. It is essential to create more fluid communication channels between technical and administrative areas.

The Implementation of a continuous training strategy. The project's success largely depends on the technical and regulatory expertise of the personnel. Training should be geared towards new regulations, technologies, and best practices to ensure the team is well-prepared to address any challenges that may arise during implementation.

## SOS Project - Implementation in Costa Rica
# Recommendations

Integrate auditing as a fundamental aspect of continuous improvement by collaboratively reviewing each question in the protocol. This approach should emphasize effective change management, acknowledging that such projects often lead to significant transformations in processes and workplace culture.
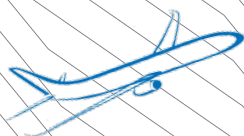
Continuous monitoring and evaluation. Establishing a robust monitoring system for the project that facilitates regular assessments of progress is essential. The goal of the State of Costa Rica is to conduct annual self-assessments.

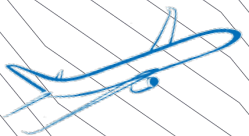## SOS Project - Implementation in Costa Rica
## Concluding Remarks

- The development of a work plan for addressing improvement actions is crucial; actions should be categorized based on their level of difficulty and required resources.

- It is essential for the State to maintain close contact and support from ICAO after the Post-SOS phase. Collaborating with the Regional Office through the SAP provides access to experts who can help refine these plans and clarify any questions related to the Protocol Questions (PQs).

- The State must have constant communication and progress reports. Maintain constant communication with higher levels and among the different units to report progress in the implementation of the recommendations..

## SOS Project - Implementation in Costa Rica
## Concluding Remarks

- The State should develop a continuous training plan focused on the USOAP CMA audit processes and the accurate completion of ICAO's online framework (EFOD, SAAQ).

- The State's NCMC should actively monitor annual self-assessments and the Corrective Action Plans (CAPs) generated periodically, ensuring consistent evaluation of compliance with established recommendations and standards

Time for questions

Thank you for your time