



ICAO

International Civil Aviation Organization
North American, Central American and Caribbean Office

WORKING PAPER

NACC/WG/10 — WP/28

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Tenth North American, Central American and Caribbean Working Group Meeting (NACC/WG/10)

Tulum, Mexico, from 8 to 12 September 2025

Agenda Item 8: Other business

**State Action Plans on CO₂ Emissions Reduction Activities (SAPs)
Aligning SAPs with the LTAG: Quantification of Operational Measures**

(Presented by the Secretariat)

EXECUTIVE SUMMARY

This paper presents the implementation status of the States' Action Plans on CO₂ emissions reductions from international civil aviation (SAP), and their alignment with the Long-Term Aspirational Goal (LTAG). The document refers to the basket of mitigation measures and the Global Framework for Sustainable Aviation, focusing on the importance of operational mitigation measures and the need for their quantification and submission to ICAO. The meeting is informed about ICAO Doc. 9988 Fourth Edition (2024), as a reference tool, to invite the Meeting to consider that the operational mitigation measures deployed at the national and regional levels be included in the preparation and/or updating of the States' Action Plans.

Action:	As presented in numeral 4
<i>Strategic Objectives:</i>	<ul style="list-style-type: none">• Safety• Air Navigation Capacity and Efficiency• Environmental Protection
<i>References:</i>	<ul style="list-style-type: none">• Resolutions of the 41st ICAO Assembly, particularly Resolution A41-21, <i>Consolidated statement of continuing ICAO policies and practices related to environmental protection.</i>• ICAO Doc. 9988, Fourth Edition (2024), <i>Guidance on the preparation of States' Action Plans for CO₂ emissions reduction activities.</i>• ICAO Environmental Protection Website: www.icao.int/environmental-protection• ICAO Environmental Report 2025

1. Introduction

1.1 At the 41st Session of the ICAO Assembly (2022), Member States agreed on a Long-Term Aspirational Goal (LTAG) of net-zero carbon emissions by 2050 for the international civil aviation sector. This milestone marked the update of ICAO's strategy and its guiding material, including ICAO Doc 9988 - Guidance on the preparation of States' Action Plans for CO₂ emissions reduction activities: Towards the implementation of the LTAG. Fourth Edition, 2024.

1.2 The implementation of the LTAG depends on national actions. Through the SAPs, a voluntary planning and reporting initiative, countries communicate their strategies and measures to contribute to the global goals. The SAP serves as a structured and standardized reference framework to facilitate coordination and information exchange among key stakeholders.

1.3 The SAP has progressively consolidated since its launch at the 37th Session of the Assembly (2010), becoming a relevant tool for countries to demonstrate their national contribution to the global goal of net-zero emissions by 2050. With the adoption of the Long-Term Aspirational Goal (LTAG) at the 41st Session of the Assembly (2022), the SAP was reaffirmed as a central tool for the implementation of national mitigation actions.

2. Status of SAP Implementation

2.1 The preparation and updating of SAPs in accordance with the guidelines of ICAO Doc 9988 is crucial for monitoring the collective progress of the sector. States' commitment to the LTAG materialized in the implementation and reporting of mitigation measures. The SAP is a voluntary planning and reporting initiative that seeks to communicate activities to mitigate CO₂ emissions.

2.2 Doc 9988 promotes a "basket of measures" from which States can choose appropriate actions to mitigate emissions. This basket includes four categories: Technological, which improve aircraft and engine design; Operational, which optimize air traffic management and flight procedures; Alternative Fuels, which promote cleaner fuels like Sustainable Aviation Fuels; and Market-Based Measures, which use economic instruments like CORSIA to incentivize emissions reduction.

2.3 Operational mitigation measures are particularly relevant for their short-term implementation potential, their ability to generate fuel savings, and thus, reduce emissions. These measures, which include the optimization of flight routes (managed by ANSPs) and ground procedures (managed by airports), are pillars for efficiency. ICAO Doc 9988 provides examples of the set of measures and allows for the selection of specific actions.

2.4 Cooperation and collaboration among the various national stakeholders is a key point for the success of the Action Plan. In this sense, the State's focal point plays a crucial role by being the main liaison with ICAO and the person responsible for facilitating coordination and information exchange among stakeholders at the national level.

3. Discussion

3.1 ICAO Doc 9988, in its Fourth Edition, provides detailed guidance on the quantification of the impacts of selected mitigation measures. This implies going beyond a simple description of the actions to estimate the fuel savings and CO₂ reductions that flights generate in international operations.

3.2 The quantification of mitigation measures is a key requirement demanded of States through ICAO Assembly resolutions, specifically A41-21. This information is fundamental, as it allows ICAO to evaluate global progress towards achieving the LTAG.

3.3 The ICAO Committee on Aviation Environmental Protection (CAEP) is developing the LTAG Monitoring and Reporting Methodology (LMR). This initiative is designed to provide guidance for data compilation, verification, and reporting of CO₂ emissions and the quantification of reductions.

3.4 The various operational improvement actions driven by the NACC/WG working groups are an example of regional and national work. These actions could be of great interest to the CAEP and the LMR Group, as they provide practical information that contributes directly to the development of the global methodology for LTAG monitoring and reporting.

3.5 Examples of implemented operational mitigation measures and the quantification process are detailed in ICAO Doc 9988 to estimate fuel savings and CO₂ reduction in their international aviation operations.

3.6 The "program for the development and updating of States' Action Plans on CO₂ emissions reduction activities," **Appendix** (English only) to this WP, has been included in the "2026-2028 ICAO Consolidated" set of proposals, which will be presented during the First ICAO A42 Ministerial Pledging Event. It is expected that they will be approved and receive the necessary funding.

4. Action by the Meeting

The Meeting is invited to:

- a) Request States that have not yet updated their Action Plans to do so in accordance with Doc 9988, Fourth Edition (2024), and to include quantified data on the impact of their operational measures.
- b) Recommend that NACC/WG members establish contact with their respective focal points in their States for the inclusion of operational measures in the preparation or updating of their SAPs.
- c) Note the ongoing work of the CAEP on the LTAG Monitoring and Reporting Methodology (LMR), recognizing its importance for the future reporting of mitigation measures in the region and to consider sending a report on the achievements of the NACC/WG.
- d) Note the proposed support program for the development and updating of States' Action Plans on CO₂ emissions reduction activities.

Programme on Supporting the Development and Update of States' Action Plans on CO₂ Emissions Reduction Activities

Beneficiary States or Organizations:

ICAO NACC States (20): Antigua and Barbuda, Bahamas, Barbados, Belize, Costa Rica, Cuba, Dominica, El Salvador, Grenada, Guatemala, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Dominican Republic, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Trinidad and Tobago.

Problem statement and needs:

Listed States continue to face significant technical and institutional challenges in developing and maintaining robust State Action Plans (SAPs) on CO₂ emissions reduction for international civil aviation. Although ICAO requires States to update their SAPs every three years, the majority have only submitted an initial version and have not revised or expanded their plans in line with evolving guidance or national progress.

A key barrier is the limited capacity to generate country-specific data on planned and implemented mitigation measures, particularly in areas such as Sustainable Aviation Fuels (SAF), operational improvements (many of which are in place but not documented), and the implementation of CORSIA, including the use of CORSIA Eligible Fuels and Emissions Units. Furthermore, States often lack clarity in identifying their own capacity-building needs and in recognizing what constitutes a “bankable” project suitable for climate finance.

Implementation support components and activities:

Phase I: Assessment and Planning

Objective: Establish current gaps and define a roadmap for SAP enhancement.

Key Activities:

- Conduct a baseline assessment on existing SAPs and identify missing or outdated components.
- Evaluate the extent to which operational improvements, SAF initiatives, and CORSIA implementation are reflected in national plans.
- Provide guidance on ICAO's SAP update requirements.

Phase II: Capacity Building and Technical Support

Objective: Strengthen national capabilities to generate, analyze, and report CO₂ mitigation data.

Key Activities:

- Facilitate regional workshops and peer learning exchanges:
 - Quantifying emissions reductions from SAF, operational improvements, and CORSIA as applicable,
 - Use of ICAO tools such as the Environmental Benefits Tool (EBT), among others,
- Support the integration of undocumented operational measures into SAPs.
- Provide templates and technical guidance for identifying and structuring “bankable” mitigation projects.

Phase III: Implementation and Investment Readiness

Objective: Enable States to operationalize updated SAPs and access climate finance.

Key Activities:

- Assist in finalizing and submitting updated SAPs to ICAO.
- Support the formulation of investment-ready project proposals aligned with SAP priorities.
- Monitor progress and provide follow-up support for implementation tracking and reporting.

Expected outcomes:

Phase I: Assessment and Planning

- States identify gaps in existing SAPs and understand ICAO's update requirements.
- Roadmap developed to integrate SAF, operational measures, and CORSIA elements into SAPs.

Phase II: Capacity Building and Technical Support

- National teams trained to quantify emissions reductions by using ICAO tools (e.g., EBT).
- Operational measures and SAF pathways documented and integrated into SAPs.
- States gain tools to define capacity-building needs and outline fundable project concepts.

Phase III: Implementation and Investment Readiness

- Updated SAPs submitted to ICAO with improved data quality and alignment.
- States understand how to formulate mitigation project proposals and navigate mechanisms for accessing climate finance.

Risks level:

Low

Project value: 125.000 USD

Phase I: 15.000 USD

Phase II: 50.000 USD

Phase III: 60.000 USD

Last updated: 2025-07-9

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