



Agenda Item 2: Air Traffic Flow Management (ATFM) Minimum Level of Services in the CAR Region

P/01 CAR Region ATFM Minimum Requirements

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**Third North American, Central American and Caribbean Working Group (NACC/WG)
Air Traffic Flow Management (ATFM) Implementation Task Force Meeting (ATFM/TF/3)
Mexico City, Mexico, 17 to 19 May 2022**



Objectives

- Support the proposal for Air Traffic Flow Management (ATFM) Minimum requirements for the CAR Region to be included in the CAR/SAM Air Navigation Plan (ANP).
- Promote group discussion regarding key aspects for the CAR Region ATFM Minimum Requirements.
- Analyze possible follow up strategy.



ATFM Requirements

✈ Annex 11

- ✈ ATFM shall be implemented for airspace where air traffic demand at times exceeds, or is expected to exceed, the declared capacity of the ATC services concerned.

✈ PANS-ATM

- ✈ ATS system capacity and ATFM.

✈ CAR/SAM Air Navigation Plan

- ✈ No ATFM Reference

✈ Doc 7030 Regional Supplementary Procedures

- ✈ NIL



ATFM Requirements

USOAP CMA 2020 Protocol Questions — ANS

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PQ No.	Protocol Question	Guidance for Review of Evidence	ICAO References	PPQ	CE
7.081	Does the State ensure that the ATS provider assesses and declares the ATC capacity?	<p>1) Review mechanism to ensure compliance.</p> <p>2) Review how the State ensures that ATS capacity is reviewed periodically.</p> <p>3) Sample ATC capacity assessment of control sectors and aerodromes.</p> <p>Note to the auditor: The ATS capacity includes the number of staff required to ensure the adequate provision of an ATS system.</p>	<p>PANS Doc 4444 (ATM) 3.1 GM Doc 9971 Part II, C3 Doc 9426 Part II, Section 1, C1 & App. C</p>		CE-7
7.082	Does the State ensure that air traffic flow management (ATFM) is implemented when air traffic demand at times exceeds, or is expected to exceed, the declared ATC capacity?	<p>1) Review the State mechanism that ensures, when applicable, the establishment and implementation of ATFM service.</p> <p>2) Review implementation of procedures governing the provision of the ATFM service.</p>	<p>STD A11 3.7.5 PANS Doc 4444 (ATM) 3.2 GM Doc 9971 Part II, C3</p>	Yes	CE-7



ATC Capacity Determination Models

- ✈ What methodology for ATC capacity determination are you applying?
 - ✈ Should we endorse guidance for ATC capacity determination models?
1. ATC Sector Capacity Calculation applied in Brazil.
 2. FAA ATC sector capacity calculation model
 3. Mixed
 4. Other



CAR Region ATFM minimum levels of services

Regional requirements to be included in the CAR/SAM ANP Volume II

- ✈ ATFM service is considered a part of the ANS basic building block framework for the upper airspace in the CAR Region.
 - ✈ All Area Control Centers (ACCs) of the CAR Region must establish flow management units.
 - ✈ ATS providers responsible for more than one ACC can make internal operational arrangements for the establishment of FMUs that serve multiple ACCs under their jurisdiction.
 - ✈ In cases of ACCs with limited automation, incapable to exercise traffic flow management functions, formal agreements must be established with neighboring ATS providers related to receive traffic flow management functions and procedures.
 - ✈ Approach control offices and aerodrome control towers must establish Flow Management Positions, or coordinate flow management functions to the FMU serving the ACC that handles their upper airspace.
 - ✈ 2.2.3 In the cases of approach control offices and aerodrome control towers under the jurisdiction of a different ATS authority of the ACC that handles their upper airspace, formal agreements must be established.



CAR Region ATFM Regional Requirements

- ✈ Evaluate the Regional level of compliance with this requirement.
- ✈ Identify challenges.
- ✈ Proposals for regional support/collaboration.

1. ACCs.
2. APP Offices.
3. Aerodrome control towers.



ATFM service basic strategic and tactical functions

- a. Collection and collation of data on the air navigation infrastructure and on the capacities of the ATC system and selected aerodromes within the “ATFM area”, including runway, taxiway and gates capacities. This embraces those areas in which traffic flow problems are likely to be encountered;
- b. Collection and analysis of data for all planned controlled flight operations into, out of, within and through the ATFM area;
- c. Determination of a coherent picture of expected traffic demand, including anticipated ad hoc traffic, comparison with available capacity and identification of areas and time periods of expected critical traffic loadings;
- d. Co-ordination with the appropriate ATS authorities in order to make every possible attempt to increase the available ATC capacity where required; and
- e. Where ATC capacity shortfalls cannot be eliminated, determination and implementation in good time of suitable tactical measures co-ordinated throughout the ATFM area as necessary and with aircraft/aerodrome operators concerned.



GREPECAS Regional Dashboard

✈ What constitutes an implemented ATFM service?

✈ How do we measure progress on implementation?

1. Criteria to be followed.
2. Checklist.
3. Different requirements for different airspaces/ATS units.



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Thank You