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WORKING PAPER

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Safety and Air Navigation Directors of the CAR Region Meeting (CAR/DCA/OPSAN)  
Mexico City, Mexico, 18 to 19 February 2014

**Agenda Item 4: Regional Performance Indicators and Metrics for Implementation of Improvements in Safety and Air Navigation**  
**4.5 CAR Region Air Traffic Flow Management (ATFM)**

**DEMAND AND CAPACITY BALANCING (DCB) FOR AIR TRAFFIC FLOW MANAGEMENT (ATFM)**

(Presented by the Secretariat)

<b>EXECUTIVE SUMMARY</b>	
This working paper presents the goals related to ATFM implementation, which includes Flexible Use Airspace (FUA) to the complete optimization of Air Traffic Services (ATS) airspace.	
<b>Action:</b>	Action presented in Section 3
<i>Strategic Objectives:</i>	<ul style="list-style-type: none"><li>• Safety</li><li>• Air Navigation Capacity and Efficiency</li><li>• Economic Development of Air Transport</li><li>• Environmental Protection</li></ul>
<i>References:</i>	<ul style="list-style-type: none"><li>• Doc 9750 - <i>Global Air Navigation Plan</i></li><li>• Doc 9854 - <i>Global Air Traffic Management Operational Concept</i></li><li>• Doc 9971 – <i>Manual on Collaborative Air Traffic Flow Management</i></li><li>• NAM/CAR Regional Performance-Based Air Navigation Implementation Plan (NAM/CAR RPBANIP)</li><li>• CAR/SAM ATFM Concept of Operation</li><li>• CAR/SAM ATFM Manual</li><li>• <a href="http://www.icao.int/NACC/Pages/nacc-regionalgroups-aniwg.aspx">http://www.icao.int/NACC/Pages/nacc-regionalgroups-aniwg.aspx</a></li></ul>

## **1. Introduction**

1.1 In the CAR Region, the subjects of Demand and Capacity Balancing (DCB) related to Air Traffic Flow Management (ATFM) implementation and all associated activities have been examined. States should improve qualified personnel, material, and economic resources to accelerate the ATFM implementation process.

1.2 The lack of qualified personnel is one of the major challenges to resolve in the short and medium-terms.

## **2. Analysis**

2.1 Global air traffic growth has maintained an average of 4.5% with a subsequent increase in ATS demand. Within ATFM implementation activities, the participation of stakeholders representing 100% of the CAR Region FIRs has been achieved through the regional teleconference programme. Teleconferences are held weekly or daily, as necessary, during the winter and hurricane seasons.

2.2 Several States have recognized that it is not necessary to establish specific ATFM units in all FIRs. However, ATFM coordination is conducted through Flow Management Units (FMUs) established in the Area Control Centres (ACCs) in the CAR Region FIRs.

2.3 The Coordination Programme requires implementation of a common methodology that permits continuous analysis of ATS capacity and Airport Acceptance Rates (AARs). An analysis of additional resources will be conducted in the short-term to improve ATM situational awareness.

2.4 The regional catalogue, which contains 99% of CAR Region ATS contingency plans, including hurricane and volcanic ash coordination procedures, has been completed. In the medium-term, an improved emergency coordination plan will be established to respond to natural disasters, as required.

2.5 Some States do not require implementation of ATFM units because respective traffic levels at their airports and ATC sectors have not reached a warranted demand for implementation of elements and functions of an air traffic flow management system.

2.6 Some airspace previously affected as special use airspace has become flexible for Area Navigation Route (RNAV) implementation. Review of the ATS route structure will continue in order to increase airspace optimization with PBN applications as the next ATFM phases are implemented. In the short-term (2014), a regional review will be conducted on special use airspace in order to identify additional improvements for ATS management.

2.7 Increased demand is forecast from 2014-2016 due to world sports events that may seriously affect ATC sector capacity and some airports in the CAR and adjacent regions. Additionally, volcanic eruptions or other significant meteorological events may cause many States to use ATFM measures and activate contingency plans without having a suitable ATFM organization, which could adversely affect other FIRs.

2.8 For regionally harmonized ATFM implementation, a stronger State commitment is required. Based on this, States should implement FMUs at 100% of ACCs in the CAR Region FIRs providing ATFM service by December 2018.

**3. Suggested Action**

3.1 The Meeting is invited to:

- a) note the information contained in this working paper;
- b) review and support the ATFM implementation target defined in paragraph 2.8; and
- c) recommend other actions on ATFM implementation considered appropriate for the CAR Region.