



International Civil Aviation Organization  
Eastern and Southern African Office

**Air Traffic Management Coordination Meeting for Southern AFI  
Flight Information Regions (ATM/CM-SAF)**  
**(Johannesburg, South Africa, 3-5 February 2015)**

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**Agenda Item 4: Air Traffic Flow Management in support of SO-B Air Navigation  
Capacity and Efficiency.**

(Presented by South Africa)

**SUMMARY**

This information paper is presented to create awareness amongst the AFI Southern Flight Information Regions of the implementation status of Air Traffic Flow Management and Collaborative Decision Making within South Africa and how it can be supported through regional role out to support overall capacity and efficiency improvements within air navigation in the region.

**1. INTRODUCTION**

- 1.1 Every day, over 100,000 flights take off at airports across the world. Some are short hops to nearby destinations; some flights cross the oceans, but all have to fly in the same sky. It is estimated that up to 8% of all aviation fuel is wasted as a result of inefficient routes that aircraft have to fly. But there is an evolution in the global air navigation industry which is already having a profound impact on the way aircraft are handled in increasing numbers, more safely, efficiently and in more environmentally-responsible ways than in the past. The industry can only take this challenge so far – governments will need to look at the very institutional arrangements of their air navigation providers to bring about full efficiencies.
- 1.2 The need to modernise and streamline the global ATM system is clear. The benefits will be seen in a number of areas: capacity improvements, environmental savings, cost reductions, fewer delays and the continuous improvement of today's renowned safety in air transport. The benefits, however, do not just accrue to the airlines and the people who fly with them. By investing in a solid future for air transportation systems now, governments will be setting course for future growth of the global economy.  
(Revolutionising Air Traffic Management by The Air Transport Action Group)
- 1.3 This CDM process is a key enabler of the Air Traffic Flow Management (ATFM) process allowing the sharing of all relevant information between aviation community members so that the best gate to gate trajectory of flights

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can be achieved. The principles of CDM have already been implemented in the CAMU day-to-day operations, planning and developments with active involvement of appropriate members of the aviation community. An ATFM CDM Telephone conference (Telcon) with all relevant ATS Units and appropriate aviation community members is held daily to discuss the current daily airspace plan (DAP), weather impact, flow rates, flexible use of airspace (FUA), post event discussion, inputs from ATS Units regarding staffing, consolidation of ATC sectors, anticipated traffic management initiative (TMI), equipment, anticipated traffic volumes, constraints, current configuration and aerodrome arrival rates (AAR), anticipated configuration and aerodrome arrival rates (AAR), aerodrome departure rates (ADR), special events, military activities that impact ATFM, and flow constraint areas (FCA) – current and anticipated.

## **2. DISCUSSION**

- 2.1 The ICAO's Global Air Navigation Plan has under its Performance Improvement Area 3, the Block 0 – NOPS, Improved Flow Performance through Planning based on a Network-Wide view. This module require the establishment of a collaborative Air Traffic Flow Management (ATFM) measure to regulate peak flows involving departure slots, managed rate of entry into a given piece of airspace for traffic along a certain axis, requested time at a way-point or an FIR/sector boundary along the flight, use of miles-in-trail to smooth flows along a certain traffic axis and re-routing of traffic to avoid saturated areas.
- 2.2 The Civil Air Navigation Services Organisation (CANSO) has undertaken a region-wide and systematic approach to delivering the required upgrades in Air Traffic Management (ATM) proficiency. Aviation safety remains a significant challenge in many parts of the African region. Governments need to recognise that in ATM, safety and efficiency transcends national borders. They need to encourage cross-border collaboration among ANSPs so that flight safety and efficiency can be optimised for the entire flight from gate to gate and not only within national borders. Governments should encourage their ANSPs to enhance regional collaboration and pave the way for the sharing of industry best practices and the benchmarking of performance against the best in class.
- 2.3 South Africa and Mozambique have signed a letter of procedure undertaking an ATFM trial in that all aircraft operating out of Maputo International Airport routing for the three coordinated airports in South Africa, namely, OR Tambo International, King Shaka International, and Cape Town international, are expected to depart at the Calculated Take Off Time (CTOT). Each aircraft operator needs to arrange his taxi in a manner consistent with meeting the

CTOT. If an aircraft is late, aircraft operators are required to view the CAMU Web page to get a new CTOT and pass it to the pilot. Operators are encouraged to release slots as soon as they are aware that they will not make their CTOT, this will enable other operators to use the released slot. Air traffic controllers and Air Traffic Flow Management specialists strive to ensure TMI compliance. In special circumstances they may request exemptions for certain aircraft. In the case of Ground Delay Programs (GDP) or Airspace Flow Programs (AFP), the CAMU monitors compliance with the Airport Flow Tool (AFT). The AFT is a computer program used by the CAMU to monitor aerodrome capacity, demand balance, model TMIs, and evaluate alternative approaches to managing the traffic. CTOTs for a GDP may be accessible through the CAMU webpage by entering the tail number and date of flight, at [www.camu.co.za](http://www.camu.co.za). Slot Allocation Message (SAM) is also sent to the Aircraft operator which includes the CTOT.

- 2.4 As the trial matures it is envisaged that South Africa will approach more of our ATM neighbours to facilitate similar programs.

### **3. SUGGESTED ACTION BY THE MEETING**

- 3.1 The meeting is invited to take note of the current ATFM trial between South Africa and Mozambique.

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