



**International Civil Aviation Organization**

**THIRD MEETING OF THE GREPECAS ATM/CNS SUBGROUP ATM COMMITTEE AIR  
TRAFFIC MANAGEMENT TASK FORCE  
(ATFM/TF/3)**

(San Andrés, Colombia, 18 to 22 June 2007)

**Agenda Item 1: ATFM existent national Plans in the CAR/SAM Regions**

**AIR TRAFFIC FLOW MANAGEMENT (ATFM) SERVICE IMPLEMENTATION MODEL**

(Presented by Colombia)

**Summary**

Adopting the recommendations of ICAO ATM Doc 444 (Air Traffic Management), Chapter 3, and the conclusions of the Second Meeting of the GREPECAS CNS/ATM Committee Air Traffic Management Task Force (ATFM/TF/2), held in Bogotá (Colombia) on 6 to 8 July 2006, the Special Civil Aeronautics Administrative Unit (UAEAC) has prepared an model for air traffic flow management regulation with which it seeks to make a contribution to the region in implementing ATFM national plans.

**1. INTRODUCTION**

**1.1.** ATFM service seeks basically to improve the balance between the demand for and capacity of the country's most congested airspaces, using the Bogotá TMA arrivals sector and Bogotá's Eldorado international airport as the starting point.

**2. PROVISION OF ATFM SERVICE IN COLOMBIA**

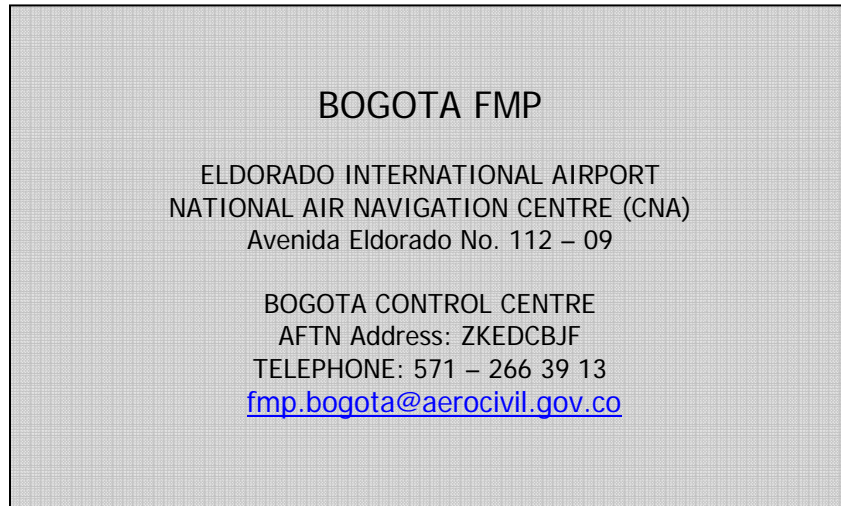
**2.1.** ATFM service will be provided by an ATS unit known as the COLOMBIA CENTRAL FLOW MANAGEMENT UNIT (COLOMBIA CFMU), whose headquarters are in Bogotá.

**2.2.** COLOMBIA CFMU'S area of responsibility is the airspace delimited by the lateral and vertical boundaries of the BOGOTA and BARRANQUILLA FIRs, as defined in the COLOMBIA AIP.



**2.3.** The COLOMBIA CFMU will comprise different FLOW MANAGEMENT POSITIONS (FMPs), which will be implemented as ATFM service is reinforced and computer resources are developed.

**2.4.** The area of responsibility of the BOGOTA FMP, known as BOGOTA FLOW, is the airspaces delimited by the lateral and vertical boundaries of the BOGOTA FIR, as defined in the COLOMBIA AIP.



**2.5.** The area of responsibility of the BARRANQUILLA FMP is the airspace delimited by the lateral and vertical boundaries of the BARRANQUILLA FIR, as defined in the COLOMBIA AIP. This airspace will be under the responsibility of the BOGOTA FMP up until the moment the BARRANQUILLA FIR enters into service.

### **3. IMPLEMENTATION STAGES**

**3.1.** The BOGOTA FMP which starting operating last 15 December 2005 will be officially put into AFTM service through the pertinent AIC, for the main purpose of regulating IFR traffic planning to land at the Eldorado international or Guaymaral airports.

**3.2.** The BOGOTA FMP will extend ATFM service to the IFR traffic planning to leave the Eldorado international and Guaymaral airports.

**3.3.** The BOGOTA FMP will extend ATFM service to the northern and southern sectors of the BOGOTA TMA, in order to regulate the IFR traffic that evolves within those sectors.

**3.4.** The BOGOTA FMP will extend ATFM service to the sectors in the upper level of the BOGOTA TMA, in order to regulate the IFR traffic that evolves within those sectors.

**3.5.** The BOGOTA FMP may in the future extend ATFM service to the different airspaces and airports located inside the BOGOTA FIR, in the degree to which the demand for traffic or the airport infrastructure justifies it.

**3.6.** The BARRANQUILLA FMP will start operating for the purpose of regulating the traffic that evolves inside the upper level sectors of the BARRANQUILLA FIR.

**3.7.** The BARRANQUILLA FMP may in the future extend ATFM service to the different airspaces and airports located inside the BARRANQUILLA FIR. in the degree to which the demand for traffic or airport infrastructure justifies it.

**3.8.** The ATFM (CFMU and FMP) service schedule will be from 1100 UTC to 0500 UTC.

### **4. ATFM SERVICE FIELD OF APPLICATION**

**4.1.** ATFM service provided by the BOGOTA FMP will apply to:

**4.1.1.** All international flights operating with FPLs or RPLs, originating in any aerodrome inside the ADJACENT FIRs, with Bogotá's Eldorado international airport as their destination, and whose registered flying time is equal to or less than ninety (90) minutes, such to be recorded in the letters of agreement, respectively.

**4.1.2.** All national flights with Eldorado international or Guaymaral airports (SKGY) as their destination and that:

**4.1.2.1.** Operate using RPL.

**4.1.2.2.** Have entered any of the following letters in box 8 of their FPL:

a. I for IFR flights.

b. Z for flights that are initially VFR and then IFR.

**4.1.3.** All national or international flights that plan to take off from Eldorado international airport and that:

**4.1.3.1.** Operate using RPL.

**4.1.3.2.** Have entered any of the following letters in box 8 of the FPL:

a. I for IFR flights.

b. Y for flights that are initially IFR and then VFR.

**4.2.** ATFM service is NOT applicable to flights that plan to take off from Eldorado international airport and that have inserted the letter V in box 8 of their FPLP or that, having presented an FPL or RPL under IFR rules, asked to use VFR.

**4.3.** Some flights could benefit from special treatment by the ATFM service, in which case they should use a status indicator (STS). These indicators, which are recognized by both flight planning offices and the CFMU, should be noted in box 18 of their FPLs.

**4.4.** A flight using any of the STS/SAR, STS/HEAD, STS/VIP 1, STS/HOSP, STS/OP or STS/VIP 2 designators will automatically be exempt from ATFM measures. Inasmuch as these aircraft will not receive CTOTs, other aircraft may be re-accommodated.

**4.5.** A flight using an STS/HUM designator, although subject to ATFM measures, will receive special treatment, without this signifying a TOTAL REDUCCION of ATFM measures.

**4.6.** A flight using an STS/STATE designator will be subject to ATFM measures.

**4.7.** Designators indicating exemptions must be used for a real purpose. Inappropriate use of these designators to avoid ATFM measures is considered a serious violation of Colombia CFMU standards, rules and regulations and as such may be investigated and sanctioned.

## **5. CENTRAL FLOW MANAGEMENT UNIT (CFMU)**

**5.1.** ATFM is a service that is in favour of ATS services and of AOs conceived in such a way that they allow CFMUs to:

**5.1.1.** Develop and maintain the highest quality level of ATS service within their area of responsibility, in favour of the ATC units and AOs, within the agreed ATFM policies and principles.

**5.1.2.** Maintain and improve the efficiency of their operations by increasing their level of automation, taking advantage of technological advances.

**5.1.3.** Adapt their procedures and systems to the evolution of their operating environments.

**5.1.4.** Maintain a high level of alertness to the various proposals for perfecting the system presented by the ATS or the AOs.

**5.2.** The COLOMBIA CFMU is headed by an air traffic controller known as the ATFM COORDINATOR, completely familiarised with ATFM philosophy, who is appointed by the Director of Air Navigation Services.

**5.3.** The COLOMBIA CFMU will consist of personnel with wide knowledge of ATC/ATFM, so that they can fulfil their prescribed functions fully.

#### **5.4. FUNCTIONS OF THE COLOMBIA CFMU**

**5.4.1.** Plan, co-ordinate, publish and implement, within its area of responsibility, ATFM measures, bearing in mind the different phases involved.

**5.4.2.** Periodically evaluate, declare and examine ATC capacity in regard to the control areas or control sectors within its area of responsibility.

**5.4.3.** Receive, process and keep the RPLs of flights planning to operate within its area of responsibility.

**5.4.4.** Generate FMPs and FPLs for the different RPLs at least twenty-four (24) hours before the EOBT.

**5.4.5.** Provide reports and statistics about ATFM operations, delays and all other information concerning ATC and AOs.

**5.4.6.** Provide reports and statistics about ATFM operations and delays for operational and administrative purposes.

**5.4.7.** Prepare, for each regulated airspace or airport, the SLOT allocation list (SAL) and transmit it duly in advance to the FMP.

**5.4.8.** Keep in permanent contact with FMP SUPERVISORS through meetings or by electronic mail or telephone.

**5.4.9.** Provide the FMP, if appropriate, with the ADPs (Daily ATFM plan) and AIMs (ATFM information messages).

**5.4.10.** Receive and process ATFM incident reports.

#### **6. FLOW MANAGEMENT POSITION (FMP)**

**6.1.** FMP is a working position established in appropriate ATS units to ensure the necessary interface between local ATFM partners, such as the ATC, the AOs and airports, and the CFMU in regard to the provision of ATFM service.

**6.2.** An FMP will be established in each of the Republic of Colombia's ACCs and they will all have the same status.

**6.3.** Each FMP should have an appointed person to guide all ATFM activities in the ACC within its area of responsibility. This person, known as the FLOW SUPERVISOR, will act as the direct contact, for

all administrative and organisational matters, with the COLOMBIA CFMU. Unless otherwise decided administratively, the APPROACH SUPERVISOR will assume the functions of FLOW SUPERVISOR.

#### **6.4. FUNCTIONES OF THE BOGOTA FMP WITH RESPECT TO THE ATS UNITS AND THE AOs**

**6.4.1.** Receive the CTOT request from the different ATS units or AOs at the aerodrome of departure for aircraft requiring it, in keeping with the “FIRST PROJECTED – FIRST SERVED” principle.”

**6.4.2.** Calculate and assign the corresponding CTOTs to the ATS units and/or AOs.

**6.4.3.** Recalculate CTOTs and duly notify ATS units and/or AOs about new CTOTs in cases of flight cancellations, the arrival of new flights with special status, and unforeseen delays or their reduction.

**6.4.4.** In the case of operations under unusual circumstances, the FMP should assign ATS units and AOs a provisional CTOT, which should be confirmed to them as rapidly as possible. If that confirmation is not made at least 30 minutes in advance, ATS units and AOs will give the flight the usual treatment.

Unusual circumstances are:

- Low visibility procedures (LVP)
- Short term aerodrome close-downs (flight diversion)
- Long term aerodrome close-downs (flight suspensions)
- Airspace closings
- Unforeseen changes in aerodrome operational configuration

**6.4.5.** Monitor aerodrome meteorological conditions within its area of responsibility, notifying the COLOMBIA CFMU of their possible impact on aerodrome capacity.

**6.5.** ATS units and AOs will be notified about the CTOT through an AFTN message or by direct communication and given any further information affecting flight departure.

### **7. RESPONSIBILITY VIS-A-VIS THE CTOT**

#### **7.1. AIRCRAFT OPERATORS**

**7.1.1.** AOs should, on their own, inform themselves about and commit themselves to general ATFM procedures, as well as any measures the ATFM adopts.

**7.1.2.** AOs, whether or NOT subject to ATFM measures, should precisely maintain the EOBTs of each and every flight. ICAO standards stipulate that delays of more than thirty (30) minutes should be reported (this requirement is compulsory).

**7.1.3.** AOs should refrain from filing bogus or duplicate flight plans, a bogus plan being a flight plan for a flight that is not made and which the originator fails to cancel. There should be only one flight plan for a single flight at a given moment. It is absolutely essential that the party originating a flight plan cancel it as soon as it is learned that the flight will not be made, or before presenting a flight plan to replace the previous one for the same flight.

#### **7.2. ATS UNITS**

**7.2.1.** The ATC is responsible for monitoring compliance with the CTOT at the controlled aerodromes of departure. The precise procedures to be following will depend upon how the ATSS are organized in each aerodrome. ATCs will be given a window of -5 minutes to up to +10 minutes to optimise the aerodrome departure sequence. A window of -5 minutes to up to +10 minutes will be applied to flights originating inside ADJACENT FIRs with Bogotá's Eldorado international (SKBO) airport as their destination and whose registered flight time is equal to or less than ninety (90) minutes.

## **8. CTOT REQUEST PROCEDURE**

### **8.1. REGULAR PASSENGER COMPANIES, CARGO COMPANIES AND AIR TAXIS**

**8.1.1.** The COLOMBIA CFMU will implement a CTOT request procedure for operators of regular passenger companies and operators of cargo and air taxi companies consisting of the presentation of departure itineraries a prescribed period in advance of the starting date of pre-established annual periods. This will make it possible to assign a CTOT to each planned flight and to inform operators duly in advance of the starting date of the cited periods.

**8.1.2.** In addition, the Colombia CFMU will implement procedures for making changes or for requesting the cancellation and presentation of the FPLs within the time limits imposed based on the date of the specific operation.

**8.1.3.** The COLOMBIA CFMU may continuously monitor AOs and constant non-compliance with the itineraries filed, which will constitute a valid reason for the suspension of this procedure for AOs for a minimum of three (03) and maximum of six (06) months. A reasonable percentage of non-compliance of itineraries, without their being cancelled or modified within the set periods, is 10%.

### **8.2. OTHER AIRCRAFT**

**8.2.1.** The COLOMBIA CFMU will implement a CTOT request procedure for AOs obliged to file flight plans, as well as military and general aviation AOs, with a prescribed period for filing in advance of the EOBT.

**8.2.2.** The FMP will assign a CTOT to each planned flight and will so inform the AOs referred to under this numeral, through the pertinent ATS unit.

## **9. SLOT (CTOT) ASSIGNMENT PROCEDURE**

### **9.1. GENERAL INFORMATION**

**9.1.1.** The COLOMBIA CFMU and the corresponding FMPs will assign the different CTOTs with total impartiality and equity. Even so, the assignment of CTOTs to the traffic operated by Eldorado international airport will be based on the length of time in advance the request is filed and the type of operator involved. In other words, a SLOT request filed longer in advance has priority over one filed later, considering that:

- a. By definition, an airport is a prepared area for the landing, takeoff and ground movement of aircraft, which is endowed with the necessary facilities for the embarkation and disembarkation of passengers, equipment and cargo.

- b. Eldorado international airport is one of the region's largest sources of income and contributes to the national budget.
- c. The region's exports and imports of goods and passengers have increased considerably.

## **9.2. ASSIGNMENT ORDER**

- 9.2.1.** The COLOMBIA CFMU will assign the different CTOTs to the AOs in the exact following order:
- 9.2.2.** Regular passenger AOs, whose itineraries were filed duly in advance and coincide relatively with the RPLs presented to the Air Transport Office.
- 9.2.3.** Cargo and air taxi AOs that have filed their itineraries duly in advance.
- 9.2.4.** AOs that file their FPLs with the pertinent ARO office. Aircraft with a registered STS with the FPL will, if appropriate, enjoy a preference in SLOT assignment.

## **10. ATFM MESSAGES**

- 10.1.** The COLOMBIA CFMU /FMP may, depending upon the requirements of the AOs, send ATFM messages to a single centralised address or to an office representing users of the aerodrome of departure or to a managing agent in the aerodrome of departure or to both.
- 10.2.** The COLOMBIA CFMU /FMP will send the ATS units involved all messages concerning ATFM regulations, as well as those having to do with the CTOTs.
- 10.3.** Until such a time as the AOs' technical resources allow, the COLOMBIA CFMU/FMP will communicate its ATFM intentions through the ATS units and/or the AIS.

## **11. ATFM INCIDENT REPORTING**

- 11.1.** The purpose of the ATFM incident reporting system is to establish procedures for:
  - 11.1.1.** Ensuring that all reports and data required for their analysis are collected as rapidly as possible.
  - 11.1.2.** Ensure that all incidents are thoroughly analysed and that corrective action is taken in order to avoid reincidence.
  - 11.1.3.** Obtain the pertinent verbal and written reports, as well as the other data specified in the ATFM incident reporting form.

## **12. RECOMMENDATION**

- 12.1.** The Meeting is invited to examine this working paper in order to consider the application of this model in the countries in the CAR/SAM Region.

**-END-**