



SAM/IG/5
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**International Civil Aviation Organization
South American Regional Office**

**FIFTH WORKSHOP/MEETING OF THE SAM IMPLEMENTATION GROUP (SAM/IG/5)
REGIONAL PROJECT RLA/06/901**

Lima, Peru, 10 - 14 May 2010

**Agenda Item 5: Implementation of Air Traffic Flow Management (ATFM) in the
SAM Region**

FMU Organisation in Uruguay

(Presented by Gustavo Turcatti, Uruguay)

Summary

This working paper contains information on the plans of Uruguay to organise an FMU at the Montevideo Air Control Centre.

References:

- SAM/IG/4 meeting
- CAR/SAM ATFM Manual
- ATFM/CDM Course in Rio de Janeiro, Brazil, 22 - 30 March 2010.

1 Background

1.1 The Uruguayan Administration has taken flow control measures based on flow control procedures, without having an appropriate ATFM organisation in place for their rationalisation taking into consideration all the elements required for their implementation.

1.2 In this sense, flow controls applied by the Montevideo control centre respond to operational deficiencies in the areas of communications and radio aids, and, less frequently, to demand/capacity imbalances.

2 Discussion

2.1 The CAR/SAM ATFM Manual is a useful guide for States that are trying to organise traffic flow management structure and functions based on techniques coordinated and harmonised with existing ATFM organisations in the Region.

2.2 In parallel, a regional ATFM and CDM course sponsored by Project RLA 06/901 was held at the CGNA, which, considering the experience and high technical capabilities of the instructors, has been of top quality and great benefit.

2.3 Collaborative decision-making (CDM) is a methodology that brings together service providers and the parties involved in the system in order to improve air traffic flow management decisions.

2.4 For the time being, CDM activities are limited to the ATFM sphere.

2.5 Based on the above, and taking into account the SAM ATFM Plan being developed under RLA/06/901 project programmes, the Uruguayan Administration deemed it advisable to start planning the organisation and objectives of an FMU at the Montevideo Control Centre in order to meet ATFM needs in the Montevideo FIR.

2.6 The ATFM coordination focal point at the Montevideo FIR is:

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3. Suggested action

3.1 The Meeting is invited, within the ATFM working group, to:

- a) review the organisational structure and objectives of the future Montevideo FMU shown in **Appendix A** to this working paper,
- b) propose ideas and make suggestions for harmonising this implementation with the structures that exist in the Region, and
- c) take note of the ATFM focal point at the Montevideo FIR.

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APPENDIX A

ORGANISATION OF THE MONTEVIDEO FMU

INTRODUCTION

ATFM implementation in the Uruguayan airspace has the following objectives:

- a) to prevent air traffic demand from exceeding the declared capacity of air traffic control services.
- b) to contribute to a safe, orderly, and expeditious air traffic, maximising ATC capacity, and making sure that traffic volume is consistent with the capacity declared by the authorities.

ORGANISATION

1. **RESPONSIBLE AUTHORITY:** DTTA (Head of the Air Traffic Technical Department)

AREA OF RESPONSIBILITY: MONTEVIDEO FIR

OBJECTIVE: Ensure compliance with ATFM management objectives by the relevant bodies.

2. **ENTITY RESPONSIBLE FOR THE PROVISION OF ATFM:** MONTEVIDEO FMU

AREA OF RESPONSIBILITY: MONTEVIDEO FIR

OBJECTIVES:

- Maximise declared capacity
- Monitor and balance traffic flows in the areas of responsibility
- Implement TMIs
- Provide demand data for the development of the three ATFM phases
- Be in direct contact with FMP/FMC
- Provide operators and users in general with precise and real-time information about the development of the ATFM plan
- Receive AIS/AIM, meteorological information.

LOCATION: Premises of the Montevideo Air Traffic Control Centre, Carrasco International Airport, Canelones, URUGUAY

RELATED SECTIONS

- Determination of runway and ATC sector capacity
- Airspace management (organisation)
- Statistics

3. **UNIT RESPONSIBLE FOR THE PROVISION OF ATFM** FMP/FMC

AREA OF RESPONSIBILITY: ACC, adjacent ACCs, TMA, TWR.

OBJECTIVES:

- Inform the FMU about air traffic demand in ATC sectors, aeronautical and airport infrastructure
- Inform the FMU about meteorological conditions
- Identify situations of congestion
- Apply demand/capacity-balancing measures
- Advise the FMU of any changes in demand caused by irregular conditions.

LOCATION: Montevideo Air Control Centre (Supervision Console)

4. FLOW MANAGEMENT PROCEDURE

The AFTM shall be planned and managed in three stages:

a) **STRATEGIC STAGE:** Up to 7 days in advance

RESPONSIBLE PARTIES:

D.T.T.A
FMU
Aircraft operators

OBJECTIVES:

- Analyse planned demand and RPL
- Assess where and when demand will exceed available capacity
- Take steps to achieve this balance
- Ensure that the ATC authority provides adequate staffing at the sites and time required
- Schedule flights as applicable
- Identify potential problems and assess possible solutions
- Develop TMI procedures
- AIS/meteorology coordination

b) **PRE-TACTICAL STAGE:** From 6 days in advance to the day of the operation

RESPONSIBLE PARTIES:

FMU
FMP/FMC
Aircraft operators

OBJECTIVES:

- Review the strategic stage
- Make adjustments based on new information (FPL, meteorology, infrastructure)
- Adjust TMIs

c) **TACTICAL STAGE:** Day of the operation

RESPONSIBLE PARTY: FMP/FMC

OBJECTIVES:

- Seek balance, based mainly on demand (FPL, RPL).
- Other factors: Meteorology, infrastructure, schedule modification, resources.

5. CDM (COLLABORATIVE DECISION MAKING)

PARTICIPANTS: FMU FMP/FMC

Aircraft operators
 Military operators
 Airport operators
 AIS/AIM
 Meteorology

OBJECTIVES:

- Improve ATFM and airport capacity management, reducing delays and getting ahead of events through better resource management.

METHODOLOGY:

- Meetings
- Exchange of updated information
- Management measures
- Dissemination

6. TMI (traffic management initiative)

RESPONSIBLE PARTY: FMU FMP/FMC

OBJECTIVES:

- Apply traffic demand management techniques based on system capacity

TYPES:

- Altitude
- In-flight holding
- Ground delay programmes
- Ground stop
- Miles in trail
- Minutes in trail
- Re-routing

7. RELATED SECTIONS**A) Responsible for determining capacity**

- a. ATC section determines sector capacity
- b. ATC section determines runway capacity
- c. Airport operator determines airport capacity

B) Responsible for statistics

- Overflights (arrivals and departures)
- Landings
- Take-offs
- Commercial aviation
- General aviation
- Military aviation

C) Responsible for advising on the development and restructuring of routes and airspaces with a view to optimising air traffic flow

