



**Agenda Item 3: Implementation of air traffic flow management (ATFM) and improvement of procedures for coordination between agencies**

**FOLLOW-UP TO ATFM IMPLEMENTATION**

(Presented by the Secretariat)

<b>SUMMARY</b>	
This working paper presents the status of implementation of ATFM in the Region, as well as the work programme and the information update tasks to be carried out by SAM State experts.	
<b>References:</b>	
<ul style="list-style-type: none"><li>- GREPECAS/18 meeting report</li><li>- SAM/IG meeting reports</li><li>- ATSRO meeting reports</li><li>- RAAC/14 meeting report</li><li>- AN&amp;FS/5 meeting report</li></ul>	
<b>ICAO strategic objectives:</b>	<i>A - Safety</i> <i>B – Air navigation capacity and efficiency</i> <i>E – Environmental protection</i>

**1. Introduction**

1.1 During the last ten years, indicators in the South American Region have shown growth in air operations and transported passengers. In several SAM States, this sustained growth has not been accompanied by an expansion in airport infrastructure and air navigation services. This adverse scenario affects efforts to increase air connectivity as a means for social and economic development in the Region.

1.2 ICAO has envisaged the ATFM service to meet possible imbalances between the capacity of air navigation services and facilities and the demand for aircraft operations requiring these facilities.

1.3 The objective of ATFM is to optimise capacity utilisation so that State and Regional industry growth does not come to a halt while expanding air navigation services and facilities, without neglecting safety.

1.4 Pursuant to GREPECAS Decisions 16/45 and 16/47 for the SAM Region, the ATFM Programme was structured in association to Project B1 - Improve demand-capacity balancing (DCB). Following is a description of the progress made by this Project.

## 2. Discussion

2.1 Achievements made in relation to ATFM implementation are not yet consolidated in the Region, despite the efforts made by States and Project RLA/06/901 through the development of guidance material and the provision of ATFM training courses.

2.2 In order to analyse the attainment of ATFM goals pursuant to the Declaration of Bogota, the following indicators have been considered:

- a) Percentage of States that have conducted runway and ATC sector capacity calculations.\*
- b) Percentage of States that have implemented ATFM in flow management units (FMUs) or flow management positions (FMPs).

*\* Note.- The SAM/IG/20 meeting (Lima, 16-20 October 2017) presented separately the progress made in runway and ATC sector capacity calculations.*

2.3 At present, 85% of the States of the Region have performed runway capacity calculations as a task prior to implementation. Regarding ATC sector calculations, it was noted that nine States of the Region, that is 64%, had carried out these calculations.

2.4 This year, Bolivia is promoting ATFM implementation activities at the DGCA, without it meaning replacing the participation of the service provider (AASANA) in the provision of ATFM service at La Paz ACC.

2.5 Regarding the metrics on implementation of flow units in the SAM Region, the Region has achieved 71% ATFM implementation (7% higher with regard to May 2017) with the implementation of the ATFM service at the Ezeiza ACC in Argentina, as shown in the following table:

Nov 2018	ARG	BOL	BRA	CHI	COL	FGY	ECU	GUY	PAN	PAR	PER	SUR	URU	VEN
71%	YES	NO	YES	YES	YES	NO	YES	NO	YES	YES	YES	NO	YES	YES

### **Percentage of States that have implemented ATFM at flow management units (FMUs) or flow management positions (FMPs)**

2.6 With regard to the operation of FMUs/FMPs, Argentina, Brazil, Chile, Colombia and Peru are developing the ATFM service on the basis of Doc 9971 and, due to the increase in aircraft operations and the overall growth of the industry in these States, ATFM and capacity management initiatives are being applied to mitigate demand/capacity imbalances generated by temporary or permanent factors.

2.7 Other units in the Region are more focused on coordination of ATFM elements, operating in association with their ACC, and generating the support to flow requirements of adjacent ACCs. The SAM ATFM Seminar, referred to further on, performed a review of ATFM regional implementation.

*Issuance of NOTAMs with flow control measures*

2.8 Conclusion SAM/IG/19-01 (SAM/IG/19 meeting (Lima, 22-26 May 2017)) instructed States to strengthen FMP/FMU functions with resources and trained personnel, and powers to coordinate the implementation of ATFM initiatives (TMIs) with ATS services.

2.9 Therefore, a substantial decrease was noted by October 2018 in the number of NOTAMs on flow control that was affecting flight efficiency (domino effect), especially on routes over the Pacific Ocean.

*Updating of the CAR/SAM ATFM CONOPS*

2.10 Joint tasks are being coordinated between the ICAO NACC and SAM Regional Offices to update the CAR/SAM ATFM CONOPS in accordance with Doc 9971, and it is expected that the first draft will be ready by the first semester of 2019.

2.11 When drafting the aforementioned CONOPS, consideration should be given to the fact that the two Regions have different air flow distributions and different reasons for the capacity/demand imbalances. For example, CAR States and territories have significant overflights and landing/take-off operations fed by flows to/from US airports. Regarding the SAM Region, the ATFM service has been configured based on an advanced centralised system, but focused on units implemented in high-density international airports and, in the case of Brazil, based on an advanced centralised system, but focused on domestic operations. These ATFM units must multiple and consolidate as ‘nodes’ of a future regional network, to which end the domestic ATFM should evolve to a regional and then interregional service.

2.12 In this regard, the RCC12 meeting approved an activity scheduled for March 2019, to optimise regional guiding documentation, which includes a new ATM service manual, a capacity calculation guide, as well as tasks to harmonise the CAR and SAM ATFM CONOPS text. This task will be entrusted to an expert of the SAM Region.

*SAM ATFM seminar*

2.13 The Seminar on Air Traffic Flow Management (ATFM) for the SAM Region was carried out in Lima, Peru, on 11-15 June 2018, with the support of Regional Project RLA/06/901. Twenty-nine experts and planners from 11 States and six IATA-LATAM experts participated. Complete information and teaching material related with this event is found at:

[https://www.icao.int/SAM/Pages/ES/MeetingsDocumentation\\_ES.aspx?m=2018-ATFM](https://www.icao.int/SAM/Pages/ES/MeetingsDocumentation_ES.aspx?m=2018-ATFM)

2.14 The main achievement of the Seminar was that participants obtained a regional vision of opportunities to address capacity gaps through the use of CDM tools, in addition to an exchange of experiences and good practices in ATFM implementation in various States.

2.15 Furthermore, a general overview of A-CDM in the Region was presented, and ATFM planners identified the link between this tool and the ATFM service, defining that both implementations are supplementary and mutually beneficial, without it entailing that one is pre-requisite for the other.

2.16 It was suggested that the following initiatives of the Seminar be furthered and coordinated through the SAM/IG forum:

- a) Opportunities for joint development were identified, including the drafting of standard ATFM manuals, procedures and work guides based on material already developed in various States, and the use of basic calculation tools.
- b) Application of a revised methodology to calculate sector and runway capacity.
- c) Formulation of performance indicators, in collaboration with IATA-LATAM, which has operational data and analytical tools.
- d) Increase collaboration by States that have made more progress in ATFM towards those States that need to promote the service.
- e) Importance and benefits of calculating ATS sector and runway capacity, which enables predicting and preparing for capacity/demand imbalances, even in airports or airspaces that currently do not experience congestion or delays. Imbalances could occur very quickly given the significant development of low-cost operators throughout the Region.

### 3. **Conclusion**

3.1 In view of the above, States and Territories must foster the implementation of at least one ATFM position (FMP) per FIR, in order to balance the demand for aircraft operations and airspace and international aerodrome service capacity, also taking into account the impact of meteorological and vulcanological events and/or temporary disruptions in air navigation services.

3.2 The ATFM CONOPS is being updated, and based on this document, action plans must be reformulated in order to organise implementation activities in CAR and SAM States. The ATFM CONOPS must define metrics and indicators for said implementation, so as to facilitate result-based management.

### 4. **Suggested action**

The Meeting is invited to take note and examine the information presented, and to:

- a) update the information on ATFM focal points contained in Appendix A;
- b) request States that have not done it yet to intensify their efforts to implement at least one ATFM position (FMP) in each FIR;
- c) request States to avoid taking flow control measures that will affect users and safety;
- d) provide feedback on CADENA sessions; and
- e) recommend any other action it may deem appropriate.