



SAM/IG/4  
WP/04  
07/09/09

**International Civil Aviation Organization  
South American Regional Office**

**FOURTH WORKSHOP/MEETING OF THE SAM IMPLEMENTATION GROUP (SAM/IG/4)  
REGIONAL PROJECT RLA/06/901**

**Lima, Peru, 19 to 23 October 2009**

**Agenda Item 5: Implementation of air traffic flow management (ATFM) in the SAM Region**

**ACTION PLAN FOR THE ATFM  
IMPLEMENTATION IN SAM REGION AIRPORTS**

(Presented by the Secretariat)

<b>Summary</b>
This working paper proposes to the meeting the revision of the progress reached on the Action Plan for ATFM implementation in airports of the SAM Region.
<b>References:</b> <ul style="list-style-type: none"><li>• Second Workshop/Meeting (SAM/IG/2) Report (Lima, Peru, 3 to 7 November 2008)</li><li>• Third Workshop/Meeting (SAM/IG/3) Report (Lima, Peru, 20 to 24 April 2009)</li><li>• Regional Project RLA/06/901</li><li>• ATFM Action Plan</li></ul>
<b>ICAO Strategic objectives</b>  <b>Strategic Objective A</b> <i>Safety</i> <b>Strategic Objective C</b> <i>Environmental Protection</i> <b>Strategic Objective D</b> <i>Efficiency</i>

**1 Background**

1.1 The SAM/IG/1 and SAM/IG/2 meetings, among other matters, analysed issues related with ATFM implementation in the South American Region, as well as the associated activities.

1.2 Particularly, SAM/IG/3 Meeting analysed different matters related with ATFM, among them, the lack of availability of a specific methodology to estimate airport and ATC sectors capacity. It also analysed the information provided by States with regard to the processing and visualisation of data for air traffic management, surveillance and automation systems to support ATFM, available means to capture meteorological information, Communications Systems and CDM processes and coordination among units, applied by States, and the ATFM Manual, among other matters. It also analysed the tasks to be executed by the Regional Project, as well as the ATFM Action Plan.

## 2 Discussion

2.1 From the discussion and exchange of points of view on this matter, SAM/IG/3 Meeting concluded on the need to include a series of tasks in the ATFM action plan, and at the same time requested ICAO Secretariat to take actions so that the same were executed within the framework of Regional Project RLA/06/901, when appropriate.

2.2 Among the tasks to be developed, the continuation of the development of the ATFM Manual for the SAM Region, the Course for calculation methodology for airport capacity and ATC sectors, as well as the development of a document to serve as reference material for its possible application, if such were the case, were identified by SAM States.

2.3 As the meeting may already know, the Calculation methodology for airport capacity and ATC sectors was carried out as scheduled, from 23 to 27 March 2009, at the facilities of the Air Navigation Management Centre in Rio de Janeiro, Brazil.

2.4 With regard to the ATFM Manual, the activity was carried out from 6 to 17 July 2009, with the participation of two Experts, Messrs. Ronald Fischer and Guilherme Francisco de Freitas Lopez, from the United States and Brazil, respectively.

2.5 With regard of the document on Calculation methodology for airport capacity and ATC sectors, this activity was carried out in the same period, with the support of Mr. Roberto Arca, from Uruguay.

2.6 Having developed these two tasks related with ATFM at the same time, enabled an exchange of opinions and experiences which had as a result the corresponding documents which appear in WP/10 and WP/05 presented at this meeting.

2.7 Finally, and in view that the ATFM plan contemplates tasks in charge of officers responsible defined with established dates of compliance a periodical review is necessary as a follow-up of tasks complied by each one of the persons responsible designated by the Implementation Group. To this end, **Appendix A** to this working paper shows the tasks that have been complied as per the information available in the Secretariat. This analysis should be made, taking also as reference **WP/02**.

3           **Suggested action**

3.1       The meeting is invited to:

- a)       Take note of the information provided; and
- b)       Review the progress reached, and if such were the case to update the Action Plan for ATFM implementation in the SAM Region shown in **Appendix A** to this working paper.

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## APPENDIX A

ACTION PLAN FOR THE IMPLEMENTATION OF ATFM AT SAM AIRPORTS				
A: AIRPORT				
Task description	Start	End	Responsible party (designate individual or organisation in charge)	Remarks
<b>1. Airport demand/capacity analysis</b>	<b>Sep 2008</b>	<b>Apr 2010</b>		
1.1 Prepare ATFM survey	N/A	Aug 2008	Project RLA/06/901 RO	Finalised
1.2 Send survey to the States of the Region	Aug 2008	SAM/IG/2	RO	Finalised
1.3 Analyse the methodology presented by Brazil for estimating airport capacity	June 2008	SAM/IG/2	ATFM/IG	Finalised and analyzed through WP/8, WP/16.
1.4 Send response to survey	N/A	SAM/IG/2	E	Finalised Except for French Guyana, Guyana, and Suriname.
1.5 Assess survey results	N/A	SAM/IG/3	ATFM/IG	Finalised
1.6 Course offered by Brazil on Airport Capacity Estimate	Mar 2009	Mar 2009	Brazil	Finalised The course was carried out from 23 – 27 March 2009, as planned
1.7 Development of the Methodology for the Calculation of Airport and Airspace Capacity in the SAM Region	Nov 2008	Jan 2009	Brazil and USA RLA/06/901	Finalised Result to be presented at SAM/IG/4
1.8 Carry out exercise of Calculation of Airport and Airspace Capacity in the SAM Region as per the Course offered by Brazil	Sept 2009	SAM/IG/4	E	
1.9 Carry out Calculation of Airport and Airspace Capacity of main airports by States.	Sept 2009	SAM/IG/5	E	
1.10 Identify airports where periods exist where the demand is greater than existing capacity including simulations, if necessary, by States.	Sept/Oct 2009	SAM/IG/5	E	
1.11 Determine operational factors affecting airport demand and capacity to optimise utilisation of existing capacity, including simulations, is necessary.	Sept/Oct 2009	SAM/IG/5	E	

<b>ACTION PLAN FOR THE IMPLEMENTATION OF ATFM AT SAM AIRPORTS</b>				
<b>A: AIRPORT</b>				
<b>Task description</b>	<b>Start</b>	<b>End</b>	<b>Responsible party (designate individual or organisation in charge)</b>	<b>Remarks</b>
1.12 Submit the conclusions on airport capacity.	N/A	SAM/IG/5	E	
<b>2. Coordination with the ATM community</b>	<b>Sep 2008</b>	<b>Jun 2009</b>		
2.1 Present initial AIC model	SAM/IG/2	SAM/IG/2	ATFM/IG	Finalised
2.2 Publish initial AIC	SAM/IG/2	Next AIRAC date/2009 after SAM/IG/3	E	Finalised
2.3 Promote seminars to the ATFM community, taking into account the CDM concept for ATFM implementation, and begin the relevant coordination		Aug 2009	E	
2.4 Inform the GREPECAS ATM Subgroup			N/A	
<b>3. Infrastructure and database</b>		<b>Aug 2008</b>		
3.1 Send the results of the survey developed by the hired expert to the Automation Group.		Dec 2008		Finalised
3.2 Send to the Automation Group the information obtained by the expert hired on the data bases used in the Brazil, United States and Eurocontrol units	Jan 2009	TBD		
3.3 Coordinate implementation activities with the Automation Group			ATFM/IG	Permanent
<b>4. Policy, standards, and procedures</b>			<b>Nov 2008</b>	
4.1 Hire expert to draft the manuals on ATFM measures for airports and FMU and FMP procedures			N/A	Task included in 4.2
4.2 Hiring of an expert for the elaboration of the ATFM Manual		February 2009	RO	Finalised. Task developed from 6 to 17 July 2009
4.3 Detailed development of ATFM Manual chapters	Dec 2008	SAM/IG/5	RO	Valid Approved partial draft, including ATFM concepts for airspace and airports at SAM/IG/2 Meeting

<b>ACTION PLAN FOR THE IMPLEMENTATION OF ATFM AT SAM AIRPORTS</b>				
<b>A: AIRPORT</b>				
<b>Task description</b>	<b>Start</b>	<b>End</b>	<b>Responsible party (designate individual or organisation in charge)</b>	<b>Remarks</b>
				To acknowledge status of implementation at SAM/IG/4. The initial task shall be developed from 6-17 Jul 2009.
4.4 Detailed development of the second part of ATFM Manual Chapters.	Dec 2009	Jun 2010	RO (RLA/06/901)	
4.5 Present the model AIC Supplement		SAM/IG/5	ATFM/IG	
4.6 Approve the AIC Supplement		SAM/IG/5	ATFM/IG	
4.7 Publish the AIP Supplements		October 2010	E	
<b>5. Training</b>	<b>Sep 2008</b>			
5.1 Draft ATFM training plans		SAM/IG/4	E	
5.2 Train the team on decision-making at airports		Aug 2009	E	
5.3 Hire expert to draft Manual on the Introduction to ATFM for the ATM Community		TBD	RO	Guidelines to inform ATM community on ATFM and CDM general concepts. These guides may be provided in courses, seminars or others TBD.
5.4 Present and assess the Manual for the Introduction to ATFM for the ATM Community		SAM/IG/6	RLA/06/901	
5.5 Train the members of the ATM community in the CDM and ATFM concepts		TBD	E	
5.6 Train the staff in ATFM measures for airports		SAM/IG/4	E	
5.7 Monitor the training of the ATM community		Jul 2010	E	
<b>6. Final implementation decision</b>				
6.1 Review factors affecting the implementation decision		SAM/IG/6	ATFM/IG	
6.2 Declare the pre-operational implementation in the defined area			E	

<b>ACTION PLAN FOR THE IMPLEMENTATION OF ATFM AT SAM AIRPORTS</b>				
<b>A: AIRPORT</b>				
<b>Task description</b>	<b>Start</b>	<b>End</b>	<b>Responsible party (designate individual or organisation in charge)</b>	<b>Remarks</b>
6.3 Declare the final operational implementation in the defined area			E	
<b>7. Monitor system performance</b>	<b>SAM/IG/7</b>	<b>SAM/IG/8</b>		
7.1 Draft the ATFM post-implementation follow-up programme at airports	SAM/IG/6	SAM/IG/7	ATFM/IG	
7.2 Implement the ATFM post-implementation follow-up programme at airports	SAM/IG/7	TBD	SAM/IG/X	
<b>Tentative pre-operational implementation date</b>		<b>N/A</b>	<b>Oct 2010</b>	
<b>Tentative definitive implementation date</b>		<b>N/A</b>	<b>Dec 2010</b>	

**Note:**

E	States
SAM/IG	SAM Implementation Group
ATFM/IG	ATFM Implementation Group
OR	Regional Office

ACTION PLAN FOR ATFM IMPLEMENTATION IN THE SAM REGION				
B- AIRSPACE				
Task description	Start	End	Responsible party(designate individual or office in charge)	Remarks
<b>1. Airspace demand and capacity analysis</b>				
1.1 Analyse the methodology to estimate airspace capacity presented by Brazil	Jun 2008	SAM/IG/2		Finalised
1.2 Prepare an airspace demand survey	TBD	TBD		
1.3 Attend the course on Airspace Capacity Estimate	<b>TBD</b>	<b>TBD</b>		
1.4 Carry out the States estimate airspace capacity at the major airports	<b>TBD</b>	<b>TBD</b>		
1.5. Identify airspace sectors where demand sometimes exceeds capacity, including simulations by the States, if necessary	<b>TBD</b>	<b>TBD</b>		
1.6 Identify operational factors affecting airspace demand and capacity in order to optimise the use of existing capacity, including simulations if necessary	<b>TBD</b>	<b>TBD</b>		
1.7 Present the conclusions on existing airspace capacity	<b>TBD</b>			
<b>2. Coordination with the ATM community</b>	<b>Sep 2008</b>	<b>Aug 2009</b>		
2.1 The ATM community considers the implementation of ATFM in the airspace	Sep 2008	Aug 2009		
<b>3. Infrastructure and database</b>	<b>TBD</b>	<b>Dec 2013</b>		
3.1 Send requirements to the Automation Group, as stipulated in Appendix B of the ATFM CONOPS	TBD	TBD		
3.2 Coordinate implementation activities with the Automation Group	N/A	Dec 2013		
<b>4. Policy, standards, and procedures</b>	<b>TBD</b>	<b>Jun 2013</b>		
4.1 Develop ATFM policies, taking into account the objectives and principles established in the CAR/SAM ATFM CONOPS	<b>TBD</b>	<b>TBD</b>		
<b>5. Training</b>	<b>TBD</b>	<b>May 2013</b>		
5.1 Train the team on airspace data collection	Jun 2009	Aug 2009		
5.2 Air Traffic Flow Management Course			Brazil	Hosted by RLA/06/901



<b>ACTION PLAN FOR ATFM IMPLEMENTATION IN THE SAM REGION</b>				
<b>B- AIRSPACE</b>				
<b>Task description</b>	<b>Start</b>	<b>End</b>	<b>Responsible party(designate individual or office in charge)</b>	<b>Remarks</b>
5.3 Train personnel in ATFM strategic measures for airspace	<b>TBD</b>	TBD		
5.4 Prepare plans and ATFM training material	TBD	TBD		
5.5 Conduct training of personnel involved.				
<b>6. Final implementation decision</b>	<b>N/A</b>	<b>Sep 2013</b>		
6.1 Analyse factors affecting the implementation decision	<b>N/A</b>	<b>TBD</b>		
6.2 Declare pre-operational implementation in the area defined	<b>N/A</b>	<b>TBD</b>		
6.3 Declare definitive operational implementation in the area defined	<b>N/A</b>	<b>TBD</b>		
<b>7. Monitor system performance</b>	<b>TBD</b>	<b>N/A</b>		
7.1 Draft ATFM post-implementation follow-up programme	TBD	Aug 2013		
7.2 Implement ATFM post-implementation follow-up programme	Dec 2013	N/A		
<b>Tentative pre-operational implementation date</b>	<b>N/A</b>	<b>Jul 2013</b>		
<b>Tentative definitive implementation date</b>	<b>N/A</b>	<b>Dec 2013</b>		

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