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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 to 14 May 2010

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

(Presented by the Secretariat)

Summary	
This working paper proposes the meeting the revision of the progress on the Action Plan for ATFM implementation in airports and airspace in the SAM Region.	
References:	
• SAM/IG/4 Report	
ICAO Strategic objectives	<i>Strategic Objective A Safety</i> <i>Strategic Objective D Efficiency</i>

1 Background

1.1 The SAM/IG/02, 03 and 04 Workshops/Meetings, among other matters, analysed the matters related with ATFM implementation in the South American Region and the related activities.

1.2 SAM/IG/4 analysed different matters related with the ATFM, among them the lack of availability of a specific methodology to calculate the airports and ATC sectors capacity. The Meeting also analysed the information provided by the States regarding the processing and display of data for flow management purposes, surveillance and automation systems to support ATFM, the means available to capture meteorological data, communication systems and CDM processes, coordination between units, the ATFM manual, among other matters. It also analysed the tasks to be carried out by the Regional Project and the ATFM Action Plan.

2 Discussion

2.1 From the discussions and exchange of points of view on this matter, the SAM/IG/4 Meeting concluded on the need to include a series of tasks in the ATFM action plan, and at the same time requested the Secretariat to take actions so that they are executed within the framework of Regional Project RLA/06/901, when appropriate.

2.2 Among the tasks that were identified to be developed, were the continuation of the development of the Second part of the ATFM Manual for the SAM Region, an ATFM Course, and a Collaborative Decision Making (CDM) Workshop oriented towards the ATFM.

2.3 The ATFM course was held in Rio de Janeiro, Brazil, from 22 to 26 March 2010 with the participation of 18 experts, agreeing to hold ATFM tele-conferences, same which are being carried out since 12 April 2010 with excellent results. The First CDM Workshop was also carried out from 29 to 31 March 2010, with the participation of 27 experts. Both events were carried out at the Air Navigation Management Centre, CGNA, facilities in Brazil, Rio de Janeiro.

2.4 With regard to the ATFM Manual, this activity was carried out from 6 to 17 July 2009, with the participation of Messrs. Ronald Fischer and Guilherme Francisco de Freitas Lopes, from United States and Brazil, respectively. The same has been presented to the first GREPECAS CNS/ATM Meeting, being adopted by the CAR and SAM Regions. The second part of this manual will continue to be developed.

2.5 Finally, and in view that the ATFM Action Plan contemplates tasks in charge of officers responsible defined with established dates of compliance, a periodical revision is necessary, as a follow-up of the tasks complied by each one of the officers 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 carried out taking into consideration WP/02.

3 Suggested action

3.1 The meeting is invited to:

- a) Take note of the information provided; and
- b) Reviews the progresses reached, and if appropriate, update the action plan for ATFM implementation in the SAM Region, shown in Appendix A to this working paper.

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
1. Airport demand/capacity analysis	Sep 2008	Apr 2010		
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/08, 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 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	Valid Through Conclusion SAM/IG/4- 5, the guidance material for the application of a common methodology for the calculation of airport and ATC sectors capacity was approved.
1.9 Carry out Calculation of Airport and Airspace Capacity of main airports by States.	Sept 2009	SAM/IG/5	E	Valid
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	Valid

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
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	Valid
2. Coordination with the ATM community	Sep 2008	Jun 2009		
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		August 2009	E	On 29 to 31 March 2010, the First CDM Workshop was carried out in Rio de Janeiro, Brazil, with the participation of 27 experts.
2.4 Inform the GREPECAS ATM Subgroup			N/A	The CNS/ATM/SG Meeting (Lima, Peru 15 to 19 March 2010) received information on the progress in the ATFM area up to date in the SAM Region (see 5.4)
3. Infrastructure and database		Aug 2008		Valid
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		Valid
3.3 Coordinate implementation activities with the Automation Group			ATFM/IG	Permanent
4. Policy, standards, and procedures			Nov 2008	
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

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
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. Presented at SAM/IG/4
4.4 Detailed development of the second part of ATFM Manual Chapters.	Dec 2009	Jun 2010	RO (RLA/06/901)	Valid
4.5 Present the model AIC Supplement		SAM/IG/6	ATFM/IG	Valid
4.6 Approve the AIC Supplement		SAM/IG/6	ATFM/IG	Valid
4.7 Publish the AIP Supplements		AIRAC date prior to SAM/IG/7	E	Valid
5. Training	Sep 2008			
5.1 Draft ATFM training plans and submit them		SAM/IG/5	E	Valid
5.2 Train the team on decision-making at airports		Aug 2009	E	Valid
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	Through the hiring of experts, the ATFM manual was developed.

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
				The CNS/ATM/SG Meeting adopted the manual for the CAR and SAM Regions. It has been planned to develop a second part of such manual.
5.5 Train the members of the ATM community in the CDM and ATFM concepts		TBD	E	The ATFM SAM Course was held in Rio de Janeiro, Brazil, from 22 to 26 March, 18 experts participated and the holding of tele-conferences was agreed, same which started on 12 April with excellent results.
5.6 Train the staff in ATFM measures for airports		SAM/IG/4	E	Valid
5.7 Monitor the training of the ATM community		Jul 2010	E	Valid
6. Final implementation decision				
6.1 Identify and review factors that may affect the implementation decision		SAM/IG/6	ATFM/IG	Valid
6.2 Declare the pre-operational implementation in the defined area			E	Valid
6.3 Declare the final operational implementation in the defined area		TBD	E	Valid
7. Monitor system performance	SAM/IG/7	SAM/IG/8		Valid
7.1 Draft the ATFM post-implementation follow-up programme at airports	SAM/IG/6	SAM/IG/7	ATFM/IG	Valid
7.2 Implement the ATFM post-implementation follow-up programme at airports	SAM/IG/7	SAM/IG/X	E	Valid

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
Tentative pre-operational implementation date		N/A	Oct 2010	
Tentative definitive implementation date		N/A	Dec 2010	

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
1. Airspace demand and capacity analysis				
1.1 Analyse the methodology to estimate ATC sector 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	Mar 2009	E		Finalised
1.4 Carry out the States estimate airspace ATC sector capacity at the major airports	Sept. 2009	SAM/IG/5		Valid
1.5. Identify airspace sectors where demand sometimes exceeds capacity, including simulations by the States, if necessary	TBD	TBD		
1.6 Identify factors affecting airspace demand and capacity in order to optimise the use of existing capacity, including simulations if necessary	TBD	TBD		
1.7 Present conclusions on the existing airspace capacity.	TBD			
2. Coordination with the ATM community				
2.1 Consider by the ATM community the implementation of ATFM in airspace	Sep 2008	Aug 2009		Valid
3. Infrastructure and database				
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		
4. Policy, standards, and procedures				
4.1 Develop ATFM policies, taking into account the objectives and principles established in the CAR/SAM ATFM CONOPS	TBD	TBD		

ACTION PLAN FOR ATFM IMPLEMENTATION IN THE SAM REGION				
B- AIRSPACE				
Task description	Start	End	Responsible party (designate individual or office in charge)	Remarks
5. Training	TBD	May 2013		
5.1 Train the team on airspace data collection	Jun 2009	Aug 2009		Valid
5.2 Air Traffic Flow Management Course	Mar 2010	Mar 2010	Brazil	Hosted by RP RLA/06/901
5.3 Train personnel in ATFM strategic measures for airspace	TBD	TBD		
5.4 Prepare plans and ATFM training material	TBD	TBD		
5.5 Conduct training of personnel involved.				
6. Final implementation decision	N/A	Sep 2013		Valid
6.1 Analyse factors affecting the implementation decision	N/A	TBD		
6.2 Declare pre-operational implementation in the area defined	N/A	TBD		
6.3 Declare definitive operational implementation in the area defined	N/A	TBD		
7. Monitor system performance	TBD	N/A		
7.1 Draft ATFM post-implementation follow-up programme	TBD	Aug 2013		Valid
7.2 Implement ATFM post-implementation follow-up programme	Dec 2013	N/A		
Tentative pre-operational implementation date	N/A	Jul 2013		
Tentative definitive implementation date	N/A	Dec 2013		

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