Agenda Item 3: Implementation of Air Traffic Flow Management (ATFM)
a) Procedures for coordination between FMP/FMP
b) Analysis of the use of RPL

ATFM PROJECT (ASBU: B0-SEQ, B0-FRTO, B0-NOPS AND B0-ACDM)

(Presented by the Secretariat)

SUMMARY

This working paper presents the status of implementation of ATFM in the Region, the work programme, and the information updating tasks to be carried out by SAM State experts.

REFERENCES:

- Doc 9750, Global Air Navigation Plan
- Report of the GREPECAS/17 meeting (Cochabamba, Bolivia, 21-25 July 2014)
- Report of the Fourth Meeting of the Programmes and Projects Review Committee (PPRC/4) - (Lima, Peru, 12-14 July 2016)
- Report of the Third AIDC Implementation Meeting (Lima, Peru, 24-26 April 2017)
- SAM/IG meeting reports

ICAO strategic objectives:	*A - Safety* *B – Air navigation capacity and efficiency* *E – Environmental protection*

1. Introduction

1.1 In order to analyse compliance with ATFM goals, the following indicators were established:

- Percentage of States that have carried out runway and ATC sector capacity calculations.

- Percentage of States that have implemented ATFM at flow management units (FMU) or flight management positions (FMP).

2. Analysis

2.1 To date, 85% of the States of the Region have carried out runway and ATC sector capacity calculations as a task prior to implementation, as shown in the following table:

Percentage of States that have carried out runway and ATC sector capacity calculations

September 2016 85%	ARG	BOL	BRA	CHI	COL	ECU	FGY	GUY	PAN	PAR	PER	SUR	URU	VEN
	YES	YES	YES	YES	YES	YES	YES *	NO	YES	YES	YES	NO	YES	YES

* French Guiana has only determined runway capacity

2.2 On the first week of April 2017, Ecuador presented updated runway capacity calculations for Guayaquil, Quito, Manta and Latacunga. Likewise, ATS capacity calculations have been made for the Guayaquil APP/ACC, Quito APP and Manta APP. The results of these calculations are summarised in **Appendix A** to this paper.

2.3 To date, only 63% of the States of the Region have implemented ATFM, as shown in the following table:

Percentage of States that have implemented ATFM in flow management units (FMU) or flow management positions (FMP)

September 2016 63%	ARG	BOL	BRA	CHI	COL	FGY	ECU	GUY	PAN	PAR	PER	SUR	URU	VEN
	NO	NO	YES	YES	YES	NO	YES	NO	YES *	YES	YES	NO	YES	YES

*Panama (FMP in the Panama FIR between 12:30 UTC and 01:00 UTC)

2.4 The SAM/IG/16 meeting developed a Strategic Planning Table, shown in **Appendix B** to this working paper, that States shall update during the Meeting.

2.5 States may update, as required, the list of ATFM Focal Points, shown in **Appendix C** to this working paper.

2.6 Furthermore, the Meeting shall review and update the ATFM Project Description, which appears in **Appendix D** to this working paper.

2.7 As a follow-up supplementary task, ATFM survey data must be updated based on **Appendix E** to this working paper.

Flow control measures implemented through NOTAMs

2.8 During the first four months of 2017, the Region has been regularly issuing NOTAMs to apply flow control measures for entry into and/or overflights in FIR spaces, due to ATS surveillance or communication equipment failure or to staffing restrictions.

2.9 It should be noted that, in some cases, these NOTAMs have been issued for long periods of time (weeks), introducing **unilateral** measures that significantly weaken the efficiency of the operation of aircraft that depart for international destinations, in addition to affecting overflights through FIRs, since they call for entry through transfer of control points with a minute-based separation regime, **regardless of flight level**.

2.10 From the foregoing, it may be noted that, in order to cope with a situation or event that somehow affects ATS capacity in a given period of time, flow control NOTAMs are being issued, sometimes covering long periods of time, instead of applying the ATFM measures set forth in Chapter 6 of Doc 9971, through the use of coordination messages between ACCs and/or FMPs/FMUs. For analytical purposes, some possible causes may be identified as follows:

- Inadequate resources or staff assigned to FMUs/FMPs to be able to analyse and duly apply ATFM measures for given periods of time and with the least possible operational impact;

- little or weak communication and coordination between ATS and ATFM units within the ANSP;

- little or weak communication and coordination between the concerned ANS units of the States; and

- weak implementation of the agreements signed in 2016 in ATS LOAs, on avoiding the use of unilateral flow control measures.

2.11 In this regard, States shall analyse during the Meeting the problems leading to unilateral issuance of flow control measures in detriment of ATFM measures established in Doc 9971, trying to reinforce, by mutual agreement, the procedures contained in the ATFM manuals of the States and/or develop new coordination protocols.

Analysis of the use of RPL

2.12 Based on information provided by ATFM focal points, several FMPs/FMUs implemented in 2016 have had problems with the use of repetitive flight plans, because, due to the process itself, they can generate some inconsistencies in the automated management of the plan. For example, this might occur when a scheduled flight departs after changing aircraft type, but without modifying the information in the ATS system, giving rise to an inaccurate calculation of flight estimates, thus reducing the efficiency of demand management tools.

2.13 Similarly, as discussed at the Third AIDC Implementation Meeting (Lima, 24-26 April 2017), the Region still has the problem of duplication of flight plans filed through the ATS automated system, which results in data loss or inconsistency, which may also affect demand calculations.

2.14 In this sense, two conclusions were formulated, AIDC/3-1 and AIDC/3-2, which must be analysed by the SAM/IG/19 meeting within the context of ATFM activities. The aforementioned conclusions are contained in the final report of the AIDC/3 meeting, which can be found at:

http://www2010.icao.int/SAM/Documents/2017-AIDC/AIDC3_InformeFinal.pdf

2.15 The Meeting shall review in detail the aforementioned issues in order to identify and, if appropriate, agree on improvements to the procedure for the use of RPL, and develop more efficient procedures for coordination between ATFM and ATS units for proper reception and automated management of flight plans in the Region.

3. **Suggested action:**

3.1 The Meeting is invited to:

a) analyse and update Appendices B, C, D and E to this working paper in what corresponds to each State;

b) update information on FMU/FMP implementation in those States that have not yet implemented ATFM;

c) analyse the problem of the use of unilateral flow control measures in detriment of ATFM measures; and

d) analyse the use of repetitive flight plans (RPLs) and the filing and consistent management of flight plans at automated ATS centres to permit an efficient use of demand management tools.

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APPENDIX A

RUNWAY CAPACITY CALCULATIONS

FOR AERODROMES

GUAYAQUIL (JOSE JOAQUIN OLMEDO)

QUITO (MARISCAL SUCRE)

MANTA (ELOY ALFARO) Y

LATACUNGA (COTOPAXI)

ATS SECTOR CAPACITY CALCULATIONS

APP GUAYAQUIL

APP QUITO

APP MANTA

(ECUADOR – Validity August 2017)

Fecha de Validez: Agosto 2017

(AAR) Aeródromo Internacional José Joaquín Olmedo de Guayaquil.				
CAPACIDAD DE PISTA	**%**	**ARR**	**DEP**	**TOTAL**
Capacidad de Pista	100%	15	14	29
Condiciones Normales	95%	14	13	27
Mal Tiempo	80%	12	11	23

(AAR) Aeródromo Internacional Mariscal Sucre de Quito				
CAPACIDAD DE PISTA	**%**	**ARR**	**DEP**	**TOTAL**
Capacidad de Pista	100%	16	15	31
Condiciones Normales	95%	15	14	29
Mal Tiempo	80%	13	12	25

(AAR) Aeródromo Eloy Alfaro de Manta.				
CAPACIDAD DE PISTA	**%**	**ARR**	**DEP**	**TOTAL**
Capacidad de Pista	100%	15	14	29
Condiciones Normales	95%	14	13	27
Mal Tiempo	80%	12	11	23

(AAR) Aeródromo Internacional Cotopaxi de Latacunga.				
CAPACIDAD DE PISTA	**%**	**ARR**	**DEP**	**TOTAL**
Capacidad de Pista	100%	10	9	19
Condiciones Normales	95%	7	6	13
Mal Tiempo	80%	8	7	15

Fecha de validez: Agosto 2017

APP GUAYAQUIL				
Capacidad	**Condiciones**	**Simultáneamente**	**Intervalo de 15 Minutos**	**Cada hora**
100%	**Valores calculados**	9	17	68
95%	**Normales**	9	16	65
80%	**Mal tiempo**	7	14	54

sector ACC1				
Capacidad	**Condiciones**	**Simultáneamente**	**Intervalo de 15 Minutos**	**Cada hora**
100%	**Valores calculados**	19	23	40
95%	**Normales**	18	21	40
80%	**Mal tiempo**	15	18	40

Nota. Tiempo promedio de permanencia en el sector 31 Minutos

Cálculo capacidad sector ACC2 GUAYAQUIL				
Capacidad	**Condiciones**	**Simultáneamente**	**Intervalo de 15 Minutos**	**Cada hora**
100%	**Valores calculados**	**8**	**17**	**68**
95%	**Normales**	**8**	**16**	**65**
80%	**Mal tiempo**	**7**	**14**	**54**

Cálculo capacidad sector APP QUITO				
Capacidad	**Condiciones**	**Simultáneamente**	**Intervalo de 15 Minutos**	**Cada hora**
100%	**Valores calculados**	8	17	68
95%	**Normales**	8	16	65
80%	**Mal tiempo**	7	14	54

Cálculos capacidad sector APP MANTA				
Capacidad	**Condiciones**	**Simultáneamente**	**Intervalos de 15 minutos**	**Cada Hora**
100%	Máximo de Capacidad	7	17	68
95%	Normales	6	16	64
80%	Mal tiempo	5	14	54

APPENDIX B

STRATEGIC PLANNING TABLE FOR THE DEVELOPMENT OF ATFM														
CONC. PPRC/3-5 action of compliance	**ARG**	**BOL**	**BRA**	**CHI**	**COL**	**ECU**	**FGY**	**GUY**	**PAN**	**PAR**	**PER**	**SUR**	**URU**	**VEN**
	Month/ Year	**Month/ Year**	**Month/ Year**	**Month/ Year**	**Month/ Year**	**Month/ Year**	**Month/ Year**	**Month/ Year**	**Month/ Year**	**Month/ Year**	**Month/ Year**	**Month/ Year**	**Month/ Year**	**Month/ Year**
1- Replica of ATFM courses to speccialized personnel	09/2015 to 11/2015	10/2015	Imp.	09/2015 07/2016	Imp.	1st Quarter 2015	2015		04/2015 02/2016	11/2016	02/2016		02/2015	07/2016
2- Bilateral Letters of Agreement with appropriate ATFM procedures without impacting on safety	04/2016	02/2014	Imp.	2nd. Quarter 2017	Imp.	2nd. Sem. 2016	2015		1st. Trim/ 2016	10/2015	05/2016			
3- Implementation of Flow Control Positions or Units (FMPs/FMUs)	2nd. Sem./2016 SABE	1st. Sem./2016	Imp.	Imp. FMP ACC/ 2016	Imp. unified ACC	2016	2016		06/2016	Imp.	07/2016		Imp.	Imp.

APPENDIX C / APÉNDICE C

LIST OF CONTACTS FOR OPERATIONAL ATFM FOCAL POINTS AND ESTABLISHED ATFM UNITS

LISTA DE CONTACTOS PARA PUNTOS FOCALES ATFM OPERACIONALES Y UNIDADES ATFM ESTABLECIDAS

State/ Estado	STATE ATFM FOCAL POINTS PUNTOS FOCALES ATFM DEL ESTADO	OPERATIONAL ATFM FOCAL POINTS AND ESTABLISHED ATFM UNITS PUNTOS FOCALES ATFM OPERACIONALES Y UNIDADES ATFM ESTABLECIDAS
ARGENTINA*	Marcelo Rodolfo Popowicz Jefe de Departamento Auditorías Dirección Inspecciones y Auditorías de Navegación Aérea Administración Nacional de Aviación Civil (ANAC) Tel: +54 11 5941-3000, Ext. 69756 E-mail: mpopowicz@anac.gob.ar	Nicolas Borovich Jefe de Departamento Planificación Tel: +5411 43203947 Cel.: +54911 31199377 Email: Nborovich@eana.com.ar Víctor Marcelo de Virgilio Jefe del Departamento Servicios de Tránsito Aéreo Tel.: +5411 5789 8400, Ext 68454 E-mail: dsna@faa.mil.ar
BOLIVIA (Plurinational State of) / **BOLIVIA (Estado Plurinacional de)***	ATCO Jesús I. Villca Jiménez Inspector ATM/SAR Dirección General de Aeronáutica Civil (DGAC) Teléfono: +591 2 211-4465 Cel.: +591 72023263 E-mail: jvillca@dgac.gob.bo	ATCO. Marco Sergio Barrios Barzola Supervisor ACC La Paz Jefe Navegación Aérea Reg. La Paz Tel/Fax: +591 2 281-0203 (ACC/La Paz) Tel/Fax: +591 2 282-1717 (Nav. Aérea) Tel: +591 2 223-8339 (Home/domicilio) Cel.: +591 7 052-3884 E-mail: mbarrios@aasana.bo masebarbar@hotmail.com

State/ Estado	STATE ATFM FOCAL POINTS PUNTOS FOCALES ATFM DEL ESTADO	OPERATIONAL ATFM FOCAL POINTS AND ESTABLISHED ATFM UNITS PUNTOS FOCALES ATFM OPERACIONALES Y UNIDADES ATFM ESTABLECIDAS
BRAZIL / BRASIL*	James Souza Short Jefe de Operaciones del CGNACentro de Gerenciamento e Navegação Aérea – CGNA Chefe Geral Tel.: +55 21 2101-6531 Cel.: +55 21 99499-1658 E-mail: short@cgna.gov.br Cap José Airton Patricio Centro de Gerenciamento e Navegação Aérea – CGNA Oficial ATM Tel.: +55 21 2101-6448 Cel.: +55 21 98554-4425 E-mail: patriciojap@cgna.gov.br	Gerente Nacional – GNAC Tel.: +55 21 2101-6409 E-mail: gnac@cgna.gov.br Gerente Nacional de Fluxo – GNAF Tel.: +55 21 2101-6546 E-mail: grt@cgna.gov.br Gerencias Regionais – GER Tel.: +55 21 9949-6492 / +55 21 2101 98554 3598 E-mail: gr1@cgna.gov.br / gr2@cgna.gov.br
CHILE*	Jorge Caro Gálvez Dirección General de Aeronáutica Civil Dirección de Aeródromos y Servicios Aeronáuticos (DASA) Sub Departamento de Servicios de Tránsito Oficina ATFM (FMU) Tel.: +56 2 2836-4022 E-mail: jcarog@dgac.gob.cl	FMP ACC Santiago Tel.: +56 2 22836-4017 ACC Santiago Cel.: +56 9158-1865 Supervisor ATC de turno E-mail: sup.accu@dgac.gob.cl

State/ Estado	STATE ATFM FOCAL POINTS PUNTOS FOCALES ATFM DEL ESTADO	OPERATIONAL ATFM FOCAL POINTS AND ESTABLISHED ATFM UNITS PUNTOS FOCALES ATFM OPERACIONALES Y UNIDADES ATFM ESTABLECIDAS
COLOMBIA*	Mauricio José Corredor Monroy Unidad Administrativa Especial de Aeronáutica Civil (UAEAC) Jefe Grupo ATFCM Tel.: + 57 1 296-2628 E-mail: mauricio.corredor@aerocivil.gov.co Skype: mauricio.jose.corredor.monroy	Unidad de Gestión de Afluencia de Tránsito Aéreo y Capacidad – FCMU COL (DE 1100 A 0500 UTC) E-mail: cfmu.dsna@aerocivil.gov.co Please copy to / Favor copiar a: E-mail: cns.fmu@aerocivil.gov.co aga.fmu@aerocivil.gov.co Telefonos: MANAGER: +57 1 296-2656 CNS: +57 1 296-2100 AGA: +57 1 296-2200 DEPARTURE FLOW MANAGEMENT: +571 296-24 06 Celular: MANAGER: +57 317 517-10 46 AGA: +57 317 363- 88 11 CNS: +57 318 330-73 74

State/ Estado	STATE ATFM FOCAL POINTS PUNTOS FOCALES ATFM DEL ESTADO	OPERATIONAL ATFM FOCAL POINTS AND ESTABLISHED ATFM UNITS PUNTOS FOCALES ATFM OPERACIONALES Y UNIDADES ATFM ESTABLECIDAS
ECUADOR	Marcelo Valencia Taco Responsable ATM Nacional Tel.Ofc: +593 2 2947400 ext 4520 Móvil: +593 979097292 E-mail: marcelo_valencia@aviacioncivil.gob.ec marcelovalencia_qa@gmail.com	Supervisores Centro de Control DDI: +593 4 2924219 REDDING: 5060 / 5051 / 5052 / 5053 Clemente Pinargote Móvil : +593 994035543 E-mail: clemente.pinargote@aviacioncivil.gob.ec clementepinargote@yahoo.com Elías Ulloa Móvil : +593 997852130 E-mail: elias.ulloa@aviacioncivil.gob.ec ulloaelias@hotmail.com
FR. GUIANA / GUYANA FRANCESA	Jean Michel Pubillier French West Indies and French Guiana Air Navigation Services Office: +596 596 42 24 88 GSM: +596 696 93 60 72 Email: jean-michel.pubillier@aviation-civile.gouv.fr	Hervé Thomas Head of ATC Services Cayenne Office: +596 594 35 93 04 GSM: +594 694 91 63 63 Email: hervé.thomas@aviation-civile.gouv.fr
GUYANA		

State/ Estado	STATE ATFM FOCAL POINTS PUNTOS FOCALES ATFM DEL ESTADO	OPERATIONAL ATFM FOCAL POINTS AND ESTABLISHED ATFM UNITS PUNTOS FOCALES ATFM OPERACIONALES Y UNIDADES ATFM ESTABLECIDAS
PANAMA*	Flor Silvera Directora de Navegación Aérea Tel.: +507 6982 1215/ 315 9846 E-mail: fsilvera@aeronautica.gob.pa	Supervisor de turno del Centro de Control Administración de Aeronáutica Civil Tel.: +507 315 9871 E-mail: cerap@aeronautica.gbo.pa
PARAGUAY*	ATCO. Sindulfo Ibarrola Dirección Nacional de Aeronáutica Civl (DINAC) Gerencia Unidad Central de Tráfico Aéreo – CFMU (Unidad Normativa) Edificio Ministerio de Defensa Nacional, 6to. piso Tel./Fax: +595 21 210-628 Cel.: +595 983 35-0815 E-mail: cfmu@dinac.gov.py	1-Unidad de Flujo (SGAS) – FMU SGAS (Unidad Operativa). Current responsible / Responsable actual de dicha Unidad: ATCO. Alejandro Amarilla Tel./Fax: +595 21 758-5110 Tel.: +595 21 68 8109 E-mail: fmu.asu@gmail.com Mariano Roque Alonso-Paraguay Edificio del Nuevo Centro de Control Unificado. 2-Unidad de Flujo (SGES) – FMU SGES (Unidad Operativa). Current responsable / Responsable actual de dicha Unidad: Lic. ATCO. David Gavilán Tel./Fax: +595 64 420-842 Cel.: +595 983 830-404 E-mail: daga_978@hotmail.com Minga Guazú-Paraguay Aeropuerto Internacional Guaraní. E-mail: abethancourt@aeronautica.gob.pa

State/ Estado	STATE ATFM FOCAL POINTS PUNTOS FOCALES ATFM DEL ESTADO	OPERATIONAL ATFM FOCAL POINTS AND ESTABLISHED ATFM UNITS PUNTOS FOCALES ATFM OPERACIONALES Y UNIDADES ATFM ESTABLECIDAS
PERU*	Martha Soto Ansaldi Dirección General de Aeronáutica Civil (DGAC) Inspector de Navegación Aérea Tel.: +51 1 615-7881 Cel.: +51 997367352 E-mail: msoto@mtc.gob.pe	Renzo Gallegos Begazo Coordinador del Centro de Control LIMA - ACC Corporación Peruana de Aeropuertos y Aviación Comercial (CORPAC S.A) Tel.: +51 1 230 1153 E-mail: rgallegos@corpac.gob.pe
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URUGUAY*	Dirección Nacional de Aeronáutica Civil (DINACIA) Tte Cnel. (Nav.) Gabriel Falco Sub- Director de Circulación Aérea Tel: +598 2 604 0408 Ext 5101 Cel: +598 9 804 6848 FAX +598 2 604 0408 E-mail: gfalco@dinacia.gub.uy	Dirección Nacional de Aeronáutica Civil (DINACIA) C.T.A. Luis A. Otheguy Director de Tránsito Aéreo (ATM) Tel.: +598 2 604-0408, Int. 5105 Cel: +598 99592113 E-mail: atfmuruguay@dinacia.gub.uy Email: dta@dinacia.gub.uy ACC Montevideo Tel.: +598 260 00619 REDDIG

State/ Estado	STATE ATFM FOCAL POINTS PUNTOS FOCALES ATFM DEL ESTADO	OPERATIONAL ATFM FOCAL POINTS AND ESTABLISHED ATFM UNITS PUNTOS FOCALES ATFM OPERACIONALES Y UNIDADES ATFM ESTABLECIDAS
VENEZUELA (Bolivarian Republic of) / **VENEZUELA (República Bolivariana de)***	Maribel Mayora Vallenilla Responsable ATFM Tel: +58 212 303-4532 (13:00 – 21:00 UTC) Cel: +58 416 611-0607 (H24) E-mail: atfm@inac.gob.ve m.mayora@inac.gob.ve Alfredo Dávila Coordinador Area de Trabajo ATS Tel.: + 582 12 355 2898 Cel.: + 584 166 247 667 E-mail: a.davila@inac.gob.ve	Harrynson Salazar Jefe ACC-Maiquetía Tel: +58 212 355-2912 (13:00 – 21:00 UTC) Cel: +58 416 632-6204 (H24) E-mail: Ha.Salazar@inac.gob.ve ACC-Maiquetía Tel: +58 212 355-2216 (H24) Cel: +58 416 623-6427 (H24)
Others / Otros	**INTERNATIONAL ORGANIZATIONS / ORGANIZACIONES INTERNACIONALES**	**ICAO / OACI**
	Julio de Souza Pereira Assistant Director, Safety Flight Operations IATA Avda. Ibirapuera, 2332, cj 22 Torre I Sao Paulo, Brasil Tel: +55 11 21874236 Mob: +55 11 993800953 Email: pereiraj@iata.org	Roberto Sosa España RO/ANS & SFTY Tel.: +511 611 8686, Ext. 104 E-mail: rsosa@icao.int Fernando Hermoza Hübner RO/ATM/SAR Tel.: +511 611 8686, Ext. 106 E-mail: fhermoza@icao.int

*Updated SAM/IG/18 / Actualizados en la SAM/IG/1

APPENDIX D

PROJECT B1: IMPROVE DEMAND/CAPACITY BALANCING

SAM Region	**PROJECT DESCRIPTION (DP)**	DP N° B1	
Programme	**Title of the Project**	**Start**	**End**
Air traffic flow management (ATFM) *(Programme Coordinator: Fernando Hermoza Hübner)*	*Improve demand/capacity balancing* *Project Coordinator: Martha Soto Ansaldi*	2012	2016
Objective	Avoid overloading the ATC and airport systems, while strengthening safety, taking into account the reduction in the number of delays caused by meteorological and traffic conditions, thus reducing fuel consumption and contaminating emissions. Likewise, improve prediction and management of surplus demand for services in ATC sectors and aerodromes.		
Scope	The scope of this project establishes that ATFM implementation should start with airport and airspace monitoring in order to identify significant increases in ground delays and in-flight holding, as well as bottlenecks (ATC sector, runway, apron, and airport facilities). Furthermore, capacity calculation and air traffic demand analysis are important elements to improve demand/capacity balancing.		
Metrics	• % of States that have calculated runway and ATC sector capacity. • % of States that have implemented ATFM in Flow Management Units (FMU) or Flow Management Positions (FMP).		

Strategy	Project execution defines ATFM implementation in the SAM Region through an airspace demand and capacity analysis, taking into account that States that are in the process of implementation shall coordinate with the ATM community to define the actions required for ATFM implementation. The infrastructure and the database, as well as the policy, standards, and procedures, are important components for the execution of this Project.
Goals	• SAM States with experts trained in the calculation of runway capacity and airspace (ATC SECTOR) capacity of States' airspace regions. • ATFM system performance oversight plan. • CAR/SAM inter-regional coordination.
Rationale	GREPECAS considered that early ATFM implementation should ensure optimum air traffic flow to or through certain areas during periods in which demand exceeded or was expected to exceed the available capacity of the ATC system. Therefore, the ATFM system should reduce aircraft delays, both in flight as on the ground, and avoid system overload.
Related projects	• Automation.

Project deliverables	Relationship with the performance-based regional plan (PFF)	Responsible party	Status of implementation*	Delivery date	Comments
Assess the progress made in the ATFM implementation work programme	B0-NOPS	Programme Coordinator		2016	Permanent Task
Calculation of airspace (ATC SECTOR) capacity.	B0-NOPS	Juarez Franklin Gouveia		SAM/IG/9	Brazil and Colombia submitted their studies.
List of airspace sectors subject to periods in which demand exceeds the existing capacity, including, if necessary, simulations by the States.	B0-NOPS	Juarez Franklin Gouveia		SAM/IG/9 SAM/IG/10	Brazil and Colombia submitted their studies.
List of operational factors affecting demand and airspace capacity for the optimisation of the existing capacity, including simulations, if necessary.	B0-NOPS	Juarez Franklin Gouveia		SAM/IG/9	Brazil and Colombia submitted their studies. Brazil, Paraguay and Peru presented data at the SAM/IG/11 meeting.
Definition of the common elements of situational awareness	B0-NOPS	Paulo Vila		2012	The States that exchange information are: Chile, Colombia, Paraguay and Venezuela.

Personnel trained in strategic ATFM measures for airspace	B0-NOPS	Project RLA/06/901		2010	In 2010, an ATFM/CDM course was conducted in Brazil with the participation of several States. In March 2009, a course on runway and ATC sector capacity calculation was conducted in Brazil. In 2012, a course for training instructors on runway and ATC sector capacity calculation was conducted in Lima.
List of factors affecting the implementation decision	B0-NOPS	Programme Coordinator		2010	The following causes were identified at the SAM/IG/11 meeting: - States that do not have the requirement or the need to implement ATFM; - Budgetary and organisational reasons; - Lack of personnel specifically devoted to ATFM activities; - The personnel responsible for ATFM is involved in other functions.
Update the calculation of airspace (ATC SECTOR) capacity and runway capacity.	B0-NOPS	Programme Coordinator		November 2015	85% of States updated ATC sectors and runway capacity calculations. Guyana and Suriname lack capacity calculation; French Guiana lack ATC sectors calculation.

Airspace monitoring processes. Air traffic demand analysis. ATFM standards and procedures of an FMU/FMP. Implementation of preliminary ATFM measures. Implementation of TMI. ATFM messaging. Coordination of special events. Civil/military coordination processes and ATFM exemption procedures.	B0-NOPS	CGNA Course Project RLA/06/901		November 2014	Completed on schedule
Replication of ATFM courses at national level	B0-NOPS	States		15/05/2015	States replicated the ATFM courses at national level.
ATFM measures during the realization of Olympic and Paralympic Games Rio 2016 in Brazil	B0-NOPS	Brazil		13/05/2016	Detail of Brazilian AIC can be found under following link on the internet: http://publicacoes.decea.gov.br/?i=publicacao&id=4339
ATFM Implementation Status	B0-NOPS	Programme Coordinator		31/10/2016	56% of States implemented ATFM.
ATFM tool information	B0-NOPS	IATA		SAM/IG/18	Completed
CTOT use demonstration	B0-NOPS	Project Coordinator		SAM/IG/18	Show benefits of ground delays application in ATFM management. Example Cuzco and Lima
Demonstration of possible indicators to measure system performance	B0-NOPS	Project Coordinator		SAM/IG/18	Practical examples

Benefits of the application of preliminary CDM strategic processes	B0-NOPS	Project Coordinator		SAM/IG/18	Examples of practical coordination
Review of ATFM Manual messages	B0-NOPS	Project Coordinator		SAM/IG/19	
Resources required	Designation of experts in the execution of some of the deliverables.				

*

Grey *Task not started*
Green *Activity underway as scheduled*
Yellow *Activity started with some delay but expected to be completed on time*
Red *It has not been possible to implement this activity as scheduled; mitigating measures are required*

ATFM SURVEY

ATFM SURVEY	ARG	BOL	BRA	CHI	COL	ECU	FGY	GUY	PAN	PAR	PER	SUR	URU	VEN	REMARKS
1 . Regarding the SAM ATFM implementation plan, confirm if FMUs/FMPs have been established. If YES, indicate which is the responsible unit. If the answer is NO, indicate what are your plans for ATFM implementation based on regional requirements.	**NO**	**NO**	**YES**	**YES**	**YES**	**NO**			**YES**	**YES**	**NO**		**NO**	**YES**	Panama: The responsible is the Control Centre Supervisor
2. Confirm if you have personnel trained in the ATFM implementation plan and if this staff is currently performing the corresponding functions according to the implementation plan.	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**NO**	**YES**	**YES**	**YES**	**NO**	**YES**	**YES**	Pending Guyana and Suriname.

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5. How many airports in your State/country have apron capacity calculations? List the main ones. If the answer is NONE, indicate which airports you think require such calculations.	**0**	**0**	**1**	**0**	**0**	**0**	**1**		**0**	**1**	**2**		**0**	**0**	**Brazil:** Apron capacity calculations have been performed for one airport (Guarulhos international airport in São Paulo-SP). This information was provided by GRU- (Guarulhos Airport Administration). **Chile:** We believe that SCEL, SCIE, and Loa de Calama require this calculation. **Colombia**: None. It is required for several airports since airport capacity is not being managed to address growing demand. **Ecuador**: None of the airports in the country has apron capacity calculations. However, it is estimated that the airports of Quito, Guayaquil, Nueva Loja, Coca, Shell Mera, Cuenca, and Manta require these calculations. **Panama**: MPTO. **Paraguay**: These calculations have not been performed due to lack of experts (specialists) duly trained for this purpose. Calculations are required for the two international airports mentioned above: "Silvio Pettirossi" in Asuncion and "Guaraní" in Minga Guazú. **Peru**: Cusco 7 C/D and 4 A/B positions. **Uruguay**: SUMU and SULS. **Venezuela**: None. We still do not have personnel duly trained to conduct these calculations, which would be required for the international airport of Maiquetía.
6. Number of operations per hour at the airport considered to be the most important one:															**Chile**: SCEL **Peru:** SPIM.
Runway capacity			**SBGR 52**	**SCEL 40**	**SKBO 70**	**29**	**6**		**MPTO 44**	**SGAS 23**	**SPJC 32**		**SUMU 25 SULS 18**	**SVMI 34**	
Apron capacity	**NO**	**NO**	**SBGR 90**	**NO**	**NO**	**NO**	**NO**	**NO**	**MPTO 49**	**NO**	**SPJC**	**NO**	**NO**	**NO**	

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7. For the airport considered to be the most important one, number of trained personnel capable of providing, in terms of operations per hour, calculations for:															
Runway capacidty	**20**	**12**	**18**	**15**	**4**	**1**	**3**		**2**	**1**	**8**		**5**	**2**	
Apron capacity	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**	**2**	**NO**	**3**	**NO**	**NO**	**NO**	
ATS sector capacity	**5**	**10**	**18**	**4**	**4**	**1**	**3**		**2**	**1**	**8**		**5**	**2**	