Agenda
Item 1: Follow-up to the performance of AIDC operation and results of the AIDC interconnection trials in the NAM/CAR/SAM Regions

FOLLOW-UP TO THE PERFORMANCE OF THE AIDC OPERATION IN THE SAM REGION

(Presented by the Secretariat)

SUMMARY

This working paper presents updated information on the AIDC performance in the SAM Region.

REFERENCES

- Report on the Third meeting on AIDC implementation (AIDC/3 - Lima, Peru, 24 to 26 April 2017)
- Report on the Twentieth workshop/meeting of the SAM implementation group (SAM/IG/20 Lima, Peru, 16 to 20 October 2017)
- Summary of the teleconferences to follow-up the AIDC implementation (14/12/2017 and 26/01/2018)

ICAO strategic objectives:	*A – Safety* *C – Air navigation capacity and efficiency*

1. Introduction

1.1 The air traffic control centres of the SAM regions have faced difficulties in the proper coordination of air traffic, which has been designated as an important contributing factor to air traffic incidents that could be significantly reduced through the interconnection of automated air traffic control systems.

1.2 In this sense, in the SAM Region, since 2009, a process was initiated for the implementation of the interconnection of ATM automated systems between the adjacent ACCs which its final objective was to:

- Allow the transfer of flight plans between adjacent ATC centres in an automated way through the AIDC.
- Allow the exchange of surveillance data (mainly radar) in areas of common interest.

1.3 To support the implementation of the interconnection of automated systems and thanks to the support of regional projects RLA/98/003 and RLA/06/901, visits were made to the States of the SAM Region to obtain information on the ATM automation status in the ACCs and information of the

surveillance systems and their interfaces. As a result of these visits, the following documents were prepared, which can be found on the following website:
https://www.icao.int/SAM/Pages/eDocumentsDisplay.aspx?area=CNS

- Interface Control Document (ICD) for ATS inter-facility data communications in the Caribbean and South American Regions (CAR/SAM AIDC ICD).
- Interface Control System Document (SICD).
- Initial interconnection regional plan of the automated systems in the ACCs.
- Preliminary document of requirements that must have the automated systems (SSS).
- Memorandum of understanding for the implementation of the interconnection of automated systems between two States that have adjacent ACCs.

1.4 Likewise, the Orientation Guide for the implementation of the AIDC was developed through the interconnection of automated centers. The updated orientation guide can also be found on the website indicated in paragraph 1.3 of this working paper.

1.5 Several courses and seminars were also held. Courses were held on the use of asterix protocols to support the implementation of radar data exchange, on-site courses in Chile, Peru, Ecuador, Colombia, Panama and Paraguay and several surveillance seminars and AIDC.

1.6 In this regard, and thanks to the activities described above, some States of the SAM Region prepared and signed memorandums of understanding (MOU) for the implementation of the interconnection of automated systems. In relation to effective implementation of the interconnection of automated systems, there was little progress to date. There is only radar data exchange between Argentina and Uruguay, radar exchange tests between Venezuela and Brazil, Argentina-Chile and Argentina-Paraguay. In relation to the transfer of flight plan data through the AIDC, these have been implemented operationally between the Brazilian ACCs and in a pre-operational way in many of the States of the Region.

2. Analysis

2.1 As a follow-up to AIDC's performance, the current situation in each of the States of the SAM Region is presented below.

Argentina

2.2 At national level, the AIDC between the ACC of Córdoba and the ACC of Ezeiza is in the pre-operational phase since 2015, proceeding to amend the letter of operational agreement between these ACCs with the introduction of the operational use of the AIDC as a primary means. At the end of September 2017, the AIDC training for the controllers of the ACCs of Comodoro, Rivadavia, Mendoza and Resistencia was completed.

2.3 It is expected that during the year 2018, among the national ACCs, the AIDC will be operational. The operational phase of the AIDC with the adjacent regional ACCs is estimated for the period 2018-2019. AIDC positive tests were carried out between the ACC of Córdoba and the ACC of Iquique (Chile).

Bolivia

2.4 By 2019, the automation of ATM systems in the main ATS facilities of Bolivia is expected to come into operation. The automated ATM systems to be installed are from the Thales company, Topsky model. Once the automation in the ATS facilities is in operation, Bolivia will initiate the coordinations with the ACCs of the adjacent States to carry out AIDC tests.

Brazil

2.5 The AIDC is in operational phase since mid-2016 among all the adjacent ACCs in Brazil except the Atlantic ACC. The operation of the AIDC between the Atlantic ACC and the rest of the Brazilian national ACCs is scheduled to enter the operational phase for the second half of 2018. Brazil published in 2017 a national document for the dissemination of the AIDC operation, the CIRCEA 100-75 - *"AIDC Operation in ATS units"*

Chile

2.6 At the national level, the AIDC operational connection between the ACC of Punta Arenas and the ACC of Puerto Montt and between the ACC of Iquique and the Antofagasta APP has been implemented since mid-2017. AIDC positive tests were carried out between the Iquique ACC and the ACC of Córdoba and with the ACC of Lima it is expected that by the end of the first semester of 2018 they will be implemented in the operational phase.

Colombia

2.7 The AIDC interconnections implemented at the national level (ACC Bogota - ACC Barranquilla) and intraregional (ACC Bogota - ACC Guayaquil, ACC Bogota - ACC Lima and ACC Bogota –ACC - Panama) are in pre-operational phase since the end of 2015. We proceeded to the revision of the letters of operational agreement between the mentioned ACCs with the introduction of the use of the AIDC as primary means. In November of 2016 the amendment of the letter of operational agreement was signed between the ACC of Bogotá and the ACC of Lima. The aforementioned AIDC connections are expected to enter the operational phase by the end of the first half of 2018.

Ecuador

2.8 At the national level, since February 2017, the AIDC between the Guayaquil ACC and the Quito APP has entered into operational phase, with an amendment to the operational agreement letter signed on February 1, 2017, with the introduction of the AIDC as primary means. AIDC positive tests were carried out between the Guayaquil ACC and the Manta and Shell APP at the end of 2017, it is expected that by the end of the first semester of 2018 they will enter the operational phase.

2.9 At the regional level, since August 2015, the AIDC has been in the pre-operational phase between the ACC of Guayaquil and the ACC of Lima and between the ACC of Guayaquil and the ACC of Bogotá. Among these ACCs, the operational letters of agreement were amended with the introduction of the use of the AIDC as primary means. It is expected that by the end of the first half of 2018 they will enter the operational phase.

2.10 Positive operational tests were carried out between the ACC of Guayaquil and CENAMER in the first quarter of 2017, it is expected that by 2018 it will be in the operational phase.

French Guiana

2.11 The implementation of the AIDC with the ACCs of the adjacent States is scheduled for the period 2018-2019. In mid-2017, a new ATM automation system was installed at the Cayenne ACC, which includes the AIDC.

Guyana

2.12 The implementation of the AIDC with the ACCs of the adjacent States is scheduled for the period 2018-2019. Guyana to date does not have AIDC.

Panamá

2.13 The Panamanian Aeronautical Administration signed a technical support contract with the company Thales for the review and update of the software of the automated system installed in the ACC of Panama which includes the solution to the problem with the AIDC (freezing of the application by accumulation of messages) as well as the technical and operational level training. This process was completed at the end of 2017. It is expected that by the end of the first semester of 2018 the AIDC will enter the operational phase between the ACC of Panama with the ACC of Bogotá and between the ACC of Panama with the ACC of CENAMER.

Paraguay

2.14 The AIDC operational tests between the ACC of Asuncion and the adjacent regional ACCs (ACC of Resistance and ACC of Curitiba) will be carried out once the modernization of the ATM automation system of the ACC of Asuncion scheduled for the middle of the first semester of 2018 is completed.

Peru

2.15 The ACC of Lima has the AIDC in pre-operational phase with the ACC of Guayaquil and with the ACC of Bogotá from the month of August 2015. In this regard, the operational letters of agreement have been amended with the introduction of the AIDC as primary means. At the end of 2017, the process of updating the automated ATM system of the Lima ACC was completed, process began in March 2017. With this modernization process, the Lima ACC is expected by the end of the first half of 2018, to have the AIDC in operational phase with the ACC of Guayaquil and the ACC of Bogotá.

Suriname

2.16 The implementation of the AIDC with the ACCs of the adjacent States is foreseen for the period 2018-2019. Suriname to date does not have AIDC.

Uruguay

2.17 AIDC implementation with ACCs of adjacent States is foreseen for the period 2018-2019.

Venezuela

2.18 AIDC implementation with ACCs of adjacent States is foreseen for the period 2018-2019. Venezuela to date does not have AIDC.

Other considerations on the follow-up to the implementation of the AIDC interconnection

2.19 The earth-ground data interconnection level requirements (AIDC) and the estimated dates for their operational implementation are presented as **Appendix A** of this Working Paper. Likewise, **Appendix B** presents the list of focal points for the coordination of the implementation of the AIDC interconnection between adjacent ACCs.

3. Suggested actions

3.1 The Meeting is invited to:

a) Take note of the information presented in this Working Paper;
b) Analyse the performance of the AIDC, the progress in the implementation of the AIDC interconnection between adjacent ACCs in the SAM region and the update of the focal points for the coordination of the implementation of the AIDC interconnection described in section 2 and Appendixes A and B.

APPENDIX A

(AIDC) GROUND-GROUND DATA INTERCONNECTION LEVEL REQUIREMENTS IN THE SAM REGION

ARGENTINA						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels *				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
CORDOBA (AUT. INDRA AIRCON2100) (2007)	IQUIQUE	XI			X	Positive AIDC tests - March 2016 As a result of the tests, the transmission speed has to be incremented from 2400 to 9600 bit/seg AIDC foreseen to be operational at the end of the second semester of 2018.
	LA PAZ	XI			X	AIDC foreseen for period - 2019 -2020
	EZEIZA	XI			XI	AIDC in pre-operational phase since December 2015. Operational phase foreseen by the first semester of 2017
	MENDOZA	XI			X	AIDC pre-operational phase by the second semester of 2017
	RESISTENCIA	XI			X	AIDC pre-operational phase by the second semester of 2017
RESISTENCIA (AUT. INDRA AIRCON2100) (May 2016)	ASUNCION	XI			X	Positive AIDC tests were conducted in 2015 between Ezeiza and Asuncion. Tests between Resistencia and Asuncion were conducted in the end of 2016. AIDC foreseen to be operational by the first semester of 2018.
	CORDOBA	XI			X	AIDC pre-operational by the second semester of 2017
	CURITIBA	XI			X	AIDC foreseen by the first semester of 2018
	EZEIZA	XI			X	AIDC pre-operational by the second semester of 2017
	MONTEVIDEO	XI			X	AIDC foreseen by the first semester of 2018

EZEIZA (AUT. INDRA AIRCON2100) (2007)	COMODORO RIVADAVIA	XI			X	AIDC pre-operational by the second semester of 2017
	MENDOZA	XI			X	AIDC pre-operational by the second semester of 2017
	PUERTO MONTT	XI			X	AIDC by the first semester of 2018
	CORDOBA	XI			XI	AIDC in pre-operational phase since December 2015. Operational phase foreseen by the first semester of 2018
	RESISTENCIA	XI			X	AIDC pre-operational by the second semester of 2017
	JOHANNESBURG	XI			X	AIDC tests foreseen by the second semester of 2017
	MONTEVIDEO	XI			X	AIDC foreseen by the first semester of 2018
MENDOZA (AUT INDRA AIRCON2100) (May 2016)	EZEIZA	XI			X	AIDC pre-operational by the first semester of 2017
	SANTIAGO	XI			X	AIDC foreseen for period 2018-2019
	CORDOBA	XI			X	AIDC pre-operational by the second semester of 2017
COMODORO RIVADAVIA (AUT INDRA AIRCON2100) (June 2016)	EZEIZA	XI			X	AIDC pre-operational by the first semester of 2017
	PUNTA ARENAS	XI			X	AIDC by the end of the second semester of 2017
	PUERTO MONTT	XI			X	AIDC by the end of the second semester of 2017

BRAZIL						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
AMAZÓNICO (MANAUS) AUTO. SAGITARIO ATECH	BRASILIA	XI			XI	AIDC implemented June 2016
	BOGOTÁ	XI			X	AIDC operational foreseen by first semester 2018
	CAYENNE	XI			X	AIDC foreseen for period 2018-2019
	CURITIBA	XI			XI	AIDC implemented July 2016
	GEORGETOWN	XI			X	AIDC foreseen for period 2018-2019
	LA PAZ	XI			X	AIDC foreseen for period 2019-2020
	LIMA	XI			X	AIDC foreseen first semester

						2018
	MAIQUETIA	XI	X		X	AIDC foreseen for period 2018-2019
	PARAMARIBO	XI			X	AIDC foreseen for period 2018-2019
	RECIFE	XI			X	AIDC implemented since 2 May 2016
	ATLÂNTICO	XI			X	Second semester 2018
BRASILIA AUTO. SAGITARIO ATECH	AMAZÔNICO	XI			XI	AIDC implemented June 2016
	CURITIBA	XI			XI	AIDC implemented July 2016
	RECIFE	XI			XI	AIDC implemented June 2016
CURITIBA AUTO. SAGITARIO ATECH	AMAZONICO	XI			XI	AIDC implemented July 2016
	ASUNCION	XI			X	AIDC foreseen second semester 2018
	BRASÍLIA	XI			Xi	AIDC implemented July 2016
	LA PAZ	XI			X	AIDC foreseen for period 2019-2020
	MONTEVIDEO	XI			X	AIDC foreseen for the first semester of 2018
	RECIFE	XI			XI	AIDC implemented July 2016
	RESISTÊNCIA	XI			X	AIDC foreseen by the first semester of 2018
	ATLÂNTICO	XI			X	Second Semester 2018
RECIFE AUTO. SAGITARIO ATECH	AMAZÔNICO	XI			XI	AIDC Implemented on 2 May 2016
	BRASÍLIA	XI			XI	AIDC implemented June 2016
	CURITIBA	XI			XI	AIDC implemented July 2016
	ATLÂNTICO	XI			X	Second Semester 2018
ATLÁNTICO AUTO. SAGITARIO ATECH	AMAZÔNICO	XI			X	Second Semester 2018
	CURITIBA	XI			X	Second Semester 2018
	DAKAR	XI			X	AIDC TBD
	JOHANNESBURG	XI			X	AIDC TBD
	LUANDA	XI			X	AIDC TBD
	MONTEVIDEO	XI			X	AIDC foreseen for period 2018-2019
	RECIFE	XI			X	Second Semester 2018
	CAYENNE	XI			X	AIDC foreseen for period 2018-2019

BOLIVIA						
ACC	ACC ADJ	Flight plan Interconnection levels				Comments
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
LA PAZ (MANUAL)	AMAZÔNICO	XI			X	AIDC foreseen for period 2019 -2020
	ASUNCION	XI			X	AIDC foreseen for period 2019 -2020
	CURITIBA	XI			X	AIDC foreseen for period 2019 -2020
	CORDOBA	XI			X	AIDC foreseen for period 2019 -2020
	LIMA	XI			X	AIDC foreseen for period 2019 -2020
	IQUIQUE	XI			X	AIDC foreseen for period 2019 -2020

CHILE						
ACC	ACC ADJ	Flight plan Interconnection levels				Comments
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
SANTIAGO (AUTO THALES TOPSKY)	IQUIQUE	XI			X	AIDC foreseen for period 2018-2019
	LIMA	XI			X	AIDC foreseen for period 2018-2019
	MENDOZA	XI			X	AIDC foreseen for period 2018-2019
	PUERTO MONTT	XI			X	AIDC foreseen for period 2018-2019
IQUIQUE (AUTO INDRA AIRCON 2100)	CORDOBA	XI			X	Positive AIDC tests - March 2016. Tests results indicate the requirement of increase transmission speed from 2400 to 9600 bit/sec. AIDC operational foreseen by the first semester of 2018
	LA PAZ	XI			X	AIDC foreseen for period 2019-2020
	LIMA	XI			X	Positive AIDC tests conducted in February 2016. AIDC foreseen to be operational by the first semester of 2018
PUERTO MONTT	SANTIAGO	XI			X	AIDC foreseen for period 2018-2019

(INDRA AUTOMATED)	PUNTA ARENAS	XI			X	AIDC operational since mid-2018
	EZEIZA	XI			X	AIDC by the first semester of 2018
	COMODORO RIVADAVIA	XI			X	AIDC by the first semester of 2018
PUNTA ARENAS (INDRA AUTOMATED)	PUERTO MONTT	XI			X	AIDC operational since mid-2017
	COMODORO RIVADAVIA	XI			X	AIDC by the first semester of 2018

COLOMBIA						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
BOGOTÁ (AUTO INDRA AIRCON 2100)	AMAZÔNICO	XI			X	AIDC operational foreseen first semester 2018
	CENAMER	XI			X	AIDC foreseen for period 2018-2019
	GUAYAQUIL	XI			XI	Positive AIDC tests conducted AIDC in pre-operational phase (August 2015). Implementation foreseen first semester 2018.
	LIMA	XI			XI	Positive AIDC tests conducted. AIDC pre-operational (August 2015) Operational letter of agreement incorporating AIDC was signed on November 2016 Operational phase foreseen first semester 2018
	MAIQUETIA	XI			X	AIDC foreseen for period 2018-2019
	PANAMA	XI			X	Positive AIDC tests conducted. AIDC foreseen to be operational by first semester 2018.
	BARRANQUILLA	XI			XI	AIDC pre-operational (March 2016)
BARRANQUILLA (AUTO INDRA	MAIQUETIA	XI			X	AIDC foreseen for period 2018-2019
	PANAMA	XI			X	Positive AIDC tests

AIRCON 2100)						conducted. AIDC foreseen to be operational by first semester 2018.
	BOGOTA	XI			XI	AIDC pre-operational (March 2016)
	KINGSTON	XI			X	AIDC TBD
	CURAÇAO	XI			X	AIDC TBD
APP Rio Negro (AIRCON 2100)	PANAMA	XI			X	Tests on first semester 2018
APP Cali (AIRCON 2100)	PANAMA	XI			X	Tests on first semester 2018

ECUADOR						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
GUAYAQUIL AUTO INDRA AIRCON 2100	BOGOTA	XI			XI	Positive AIDC tests conducted. AIDC pre-operational (August 2015) implementation foreseen first semester 2018
	LIMA				XI	AIDC operational implementation (31 March 2016) Migrated to pre-operational phase since Nov 2016. Resume to operational phase foreseen for first semester 2018.
	CENAMER	XI			X	Positive AIDC tests conducted. AIDC foreseen for period 2018-2019

FRENCH GUIANA						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
CAYENNE AUTO ADACEL AIDC	AMAZÔNICO	XI			X	AIDC foreseen for period 2018-2019
	PARAMARIBO	XI			X	AIDC foreseen for period 2017-2019

not installed	PIARCO	XI			X	AIDC foreseen for period 2018-2019
	DAKAR	XI			X	AIDC foreseen for period 2018-2019
	ATLANTICO	XI			X	AIDC foreseen for period 2018-2019

GUYANA						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
GEORGETOWN AUTO INTELCAN AIDC not installed	AMAZONICO	XI			X	AIDC foreseen for period 2018-2019
	PIARCO	XI			X	AIDC foreseen for period 2018-2019
	MAIQUETIA	XI			X	AIDC foreseen for period 2018-2019
	PARAMARIBO	XI			X	AIDC foreseen for period 2018-2019

PANAMA						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
PANAMA (AUTO THALES)	BOGOTA	XI			X	Positive AIDC tests conducted. AIDC foreseen to be operational by first semester 2018.
	BARRANQUILLA	XI			X	Positive AIDC tests conducted. AIDC foreseen to be operational by first semester 2018.
	CENAMER	XI			X	Positive AIDC tests conducted. Pre operational phase. AIDC foreseen to be operational by first semester 2018.
	APP CALI	XI			X	Tests on first semester 2018.

	APP RIO NEGRO	XI			X	Tests on first semester 2018.
	KINGSTON	XI			X	Pre-operational phase by first semester 2018

PARAGUAY						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
ASUNCION AUTO AIRCON 2100 INDRA	CURITIBA	XI			X	AIDC foreseen for second semester 2018
	LA PAZ	XI			X	AIDC foreseen for period 2019-2020
	RESISTENCIA	XI			X	Positive AIDC tests conducted in 2015 between Ezeiza and Asuncion. Tests between Resistencia and Asuncion were held by the end of 2016. AIDC foreseen to be operational by the first semester 2018.

PERU						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
LIMA AUTO AIRCON 2100 INDRA	AMAZONICO	XI			X	AIDC foreseen to be operational by first semester 2018
	BOGOTA	XI			XI	Positive AIDC tests conducted. AIDC pre-operational phase (August 2015). Amendment to the operational agreement including the AIDC signed in November 2016. Operational phase foreseen first semester 2018
	SANTIAGO	XI			X	AIDC foreseen for period 2018-2019
	IQUIQUE	XI			X	Positive AIDC tests conducted in February 2016.

						AIDC foreseen to be operational by the first semester of 2018.
	GUAYAQUIL	XI			XI	AIDC operational (31 March 2016) migrated to pre-operational phase on November 2016. Expected to resume operational phase on the first semester 2018.
	LA PAZ	XI			X	AIDC foreseen for period 2019-2020

SURINAME						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
PARAMARIBO (AUTO INTELCAN) AIDC not installed	AMAZÓNICO	XI			X	AIDC foreseen for period 2018-2019
	GEORGETOWN	XI			X	AIDC foreseen for period 2018-2019
	PIARCO	XI			X	AIDC foreseen for period 2018-2019
	CAYENNE	XI			X	AIDC foreseen for period 2018-2019

URUGUAY						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
MONTEVIDEO (AUTO INDRA AIRCON2100)	CURITIBA	XI			X	AIDC foreseen by first semester 2018
	EZEIZA	XI			X	AIDC foreseen by the first semester 2018
	RESISTENCIA	XI			X	AIDC foreseen by first semester 2018
	ATLANTICO	XI			X	AIDC foreseen for period 2018-2019
	JOHANNESBURG	X			X	AIDC TBD

VENEZUELA						
ACC	ACC ADJ	Flight plan				Comments
		Interconnection levels				
		1 4444 Manual	2 4444 Auto	3 (OLDI)	4 (AIDC)	
MAIQUETIA (AUTO ATECH X4000) AIDC not installed	AMAZONICO	XI	XI		X	AIDC foreseen for period 2018-2019
	BOGOTA	XI			X	AIDC foreseen for period 2018-2019
	BARRANQUILLA	XI			X	AIDC foreseen for period 2018-2019
	PIARCO	XI			X	AIDC TBD
	CAYENNE	XI			X	AIDC foreseen for period 2018-2019
	CURAZAO	XI			X	AIDC TBD
	SAN JUAN	XI			X	AIDC TBD

*** X PLANNED**
***XI IMPLEMENTED AND IN PRE-OPERATIONAL OR OPERATIONAL PHASE**

APPENDIX B / APÉNDICE B

NATIONAL FOCAL POINTS / PUNTOS FOCALES NACIONALES

IMPLEMENTATION OF INTERCONNECTION OF AUTOMATED SYSTEMS / IMPLANTACIÓN INTERCONEXIÓN SISTEMAS AUTOMATIZADOS

STATE/ ESTADO	ADMINISTRATION/ ADMINISTRACIÓN	NAME/ NOMBRE	POST/ CARGO	TELEPHONE/ TELEFONO	E-MAIL
ARGENTINA	EANA	Javier Schenk	Gerente CNS EANA	Cel (54911) 5848 6936	Jschenk@eana.com.ar
		Osvaldo Oscar Godoy	Jefe ANS Subregional Ezeiza	(5411) 4480 2309 Cel (54911) 2883 6444	ogodoy@eana.com.ar
		Daniel Coria	Coordinador nacional sistema automatizados	Cel (54911) 3594 2686	dcoria@eana.com.ar
		Mario Correa	Jefe sistemas automatizados ATS	(5411) 4320 3955 Cel (54911) 5460 9199	mccorrea@eana.com.ar
	ANAC	Diego Agüero	Técnico automatización	(5411) 5941 3000 Ext.69-128 Cel (54911) 2258 7836	daguero@anac.gob.ar
BOLIVIA	DGAC	Jaime Yuri Álvarez Miranda	Jefe Unidad CNS	(5912) 2444450 Ext. 2651	jalvarez@dgac.gob.bo
BRAZIL/ BRASIL	DECEA	Luiz Antonio dos Santos	Asesor ATM	(5521) 2101 6088	luizantoniolas@decea.gov.br
		Murilo Loureiro	Asesor sistemas automatizados	(5521) 2101 6658	loureiromal@decea.gov.br
COLOMBIA	UAEAC	Harlen Mejía	Jefe de Aeronavegación		harlen.mejia@aerocivil.gov.co
		Mauricio Ferrer	Especialista ATM sistemas automatizados		mauricio.ferrer@aerocivil.gov.co
		Pedro Alejandro Velasco	Jefe Grupo de Vigilancia Aeronáutica	(57) 31 7656 7203	pedro.velasco@aerocivil.gov.co

STATE/ ESTADO	ADMINISTRATION/ ADMINISTRACIÓN	NAME/ NOMBRE	POST/ CARGO	TELEPHONE/ TELEFONO	E-MAIL
CHILE	DGAC	Pedro Pastrian	Especialista radar y sistemas automatizados	(562) 836 4005 (562) 644 8345	ppastrian@dgac.gob.cl
		Christian Vergara	Especialista comunicaciones	(562) 836-4005 (562) 644-8345	cvergara@dgac.gob.cl
		Gustavo Cáceres Moraga	Controlador Tránsito Aéreo Ofc. Operaciones ACCS	(562) 91581853 (562) 28364018	gcaceres@dgac.gob.cl
ECUADOR	DAC	Raul Avellan	Especialista CNS coordinador sistema AMHS	(5934) 269-2829 (5939) 9530-2735	raul.avellan@aviacioncivil.gob.ec
		Jorge Zúñiga	Programación FDP y coordinaciones	(5932) 2604477	jorzu40@hotmail.com
		Eugenio Espinoza	Controlador ACC Guayaquil Radar	(593) 981269823	eugenio.espinoza@aviacioncivil.gob.ec
GUYANA					
GUYANA FRANCESA / FRENCH GUIANA	Service de la Navigation Aérienne aux Antilles-Guyane (SNA-AG)	Michel Areno	Head French Guiana ACC	(594) 6944 55617	michel.areno@aviation-civile.gouv.fr
PANAMA	Autoridad Aeronáutica Civil (AAC)	Mario Antonio Facey Howard	Especialista radar y sistemas automatizados	(507) 315 9852/65	mfacey@aeronautica.gob.pa
PARAGUAY	DINAC	Digno Nelson Cardozo González	Técnico Especialista en Radar y Sistemas Automatizados	(595) 217585016 Cel (595) 961779106	nechicar@gmail.com
		Diego Ramón Aldana Fernández	Supervisor ACC/APP	(595) 752719 (59) 596169 2104	diegoaldana@gmail.com
PERÚ	CORPAC	Johnny Ávila	Jefe equipos centro de control	(511) 230-1000 Ext.1267	javila@corpac.gob.pe

STATE/ ESTADO	ADMINISTRATION/ ADMINISTRACIÓN	NAME/ NOMBRE	POST/ CARGO	TELEPHONE/ TELEFONO	E-MAIL
		Jorge Eduardo Merino Rodríguez	Especialista ATM Controlador de Tránsito Aéreo	(51 1) 230-1000 Ext 1158 (511) 5750886 (Centro de Control Lima) (511) 5750995 Cel (51) 99737407	jmerino@corpac.gob.pe jemr69@yahoo.com
		Jaime Arturo Contreras Benito	Coordinador General del Centro de Control	(511) 630 1154 Cel (51) 948 463 081	jcontreras@corpac.gob.pe
		Raul Anastacio Granda	Supervisor Comunicaciones AMHS-AFTN Área de Comunicaciones Fijas Aeronáuticas	(511) 230-1018	ranastacio@corpac.gob.pe
		Sara Siles La Rosa	Jefe del Área de Servicios de Información Aeronáutica CORPAC S.A.	(511) 230 1168 / (511) 230 1169 Cel (51) 978 598 481	ssiles@corpac.gob.pe
	DGAC	Sady Beaumont Valdez	Inspector de Navegación Aérea	(511) 6157880	sbeaumont@mtc.gob.pe
SURINAM/ SURINAME					
URUGUAY	DINACIA	Antonio Lupacchino	Especialista CNS sistemas automatizados	(598) 2604-0408 Ext.4520	alupacch@yahoo.com.ar
		Gustavo Turcatti	Jefe Departamento Operativo de Tránsito Aéreo	(598) 2604-0408 Ext.5111	blantur@gmail.com

STATE/ ESTADO	ADMINISTRATION/ ADMINISTRACIÓN	NAME/ NOMBRE	POST/ CARGO	TELEPHONE/ TELEFONO	E-MAIL
VENEZUELA	INAC	Jean Carlos Lozano Garcia	Controlador tránsito aéreo ACC Maiquetía	(58 416) 7226428	jclozgar@hotmail.com