



Agenda

Item 2: Review to the action plans for the implementation of AIDC interconnection in the NAM/CAR/SAM Regions

**ACTIVITY PLAN FOR AIDC INTERCONNECTION BETWEEN ADJACENTS ACCs
OF THE SAM REGION**

(Presented by the Secretariat)

SUMMARY	
This working paper presents the updated activity plan for the implementation of the AIDC interconnection between adjacent ACCs of the SAM Region.	
REFERENCES	
<ul style="list-style-type: none">• Third meeting on AIDC implementation (Lima, Peru, 24 to 26 April 2017)• Eleventh Meeting of the Coordination Committee of Regional Project RLA/06/901 (Lima, Peru, 5 October 2017)	
ICAO strategic objectives:	<i>A – Safety</i> <i>B – Protection of the environment and sustainable development of air transport</i>

1. Introduction

1.1 The Eleventh Meeting of the Coordination Committee of Project RLA/06/901 (RCC/11), when analysing the activities of Project RLA/06/901 to be held in 2018, approved the carry out the Fourth Meeting of Implementation of AIDC in Lima, Peru from 16 to 20 April, supporting the same with 2 fellowships for each member state of project RLA/06/901 and an AIDC course for the ATS controller staff of the Maiquetía ACC and technical support staff in the ATM automation systems of the Maiquetía ACC.

1.2 The Fourth Meeting of Implementation of AIDC in the SAM Region has been considered to be carried out in conjunction with the NAM/CAR Region in order to deal with aspects of inter-regional AIDC implementation. In this sense, the Fourth Meeting is part of this Implementation Meeting of the AIDC (Data Communications between ATS facilities) in the NAM/CAR/SAM regions.

1.3 The AIDC workshop in Venezuela is scheduled to take place from November 26 to 30. The same will be dictated by specialists from States in the SAM Region. This type of courses has been made since 2015 in Chile, Ecuador, Colombia, Panama, Paraguay, Peru and Uruguay.

2. **Analysis**

2.1 Taking into account the activities carried out to date, those planned and approved for 2017 and those considered to be implemented in the period 2017-2019, the Secretariat proceeded to update the activity plan for the implementation of the AIDC interconnection, which presented as an **Appendix** to this working paper.

3. **Suggested actions**

3.1 The Meeting is invited to:

- a) Take note of the information presented;
- b) analyze the content of section 2 and the Appendix for approval; and
- c) analyze other considerations in this regard that the Meeting deems necessary.

APPENDIX

PLAN OF ACTIVITIES FOR THE IMPLEMENTATION OF THE AIDC INTERCONNECTION BETWEEN ADJACENTS ACCs

Activity	Start	End	Responsible	Status
1. Establishment of initial activities for completing the technical implementation of AIDC	10/10/14	16/10/14	ICAO	Completed
<p>1.1 Based on the results of AIDC tests conducted from February 2014 to June 2014, the technical documentation of the automated systems installed in the Region, and the SAM AIDC implementation guide, develop:</p> <p>1.1.1 Plan of activities to complete technical feasibility tests for AIDC interconnection between:</p> <p style="padding-left: 20px;">Santiago ACC - Lima ACC Guayaquil ACC - Lima ACC Bogota ACC - Guayaquil ACC</p> <p>1.1.2 Contents of AIDC course for ATS controllers and programmers of AIDC automated system databases, to be conducted in Chile, Colombia, Ecuador and Peru.</p>	10/10/14	16/10/14	ICAO	<p>The initial plan of activities for AIDC implementation is scheduled for 2015. The plan of activities contemplates the conduction of AIDC courses for air traffic controllers working at ACCs and the operational implementation of AIDC between adjacent ACCs.</p> <p>These activities will be conducted in Chile, Colombia, Ecuador and Peru.</p> <p>Interconnection tests between the Lima and Bogota ACCs were added to the list shown in paragraph 1.1.1.</p>
2. Review of activities at the SAM/IG/14 meeting	09/10/14	13/11/14	ICAO and SAM/IG group	Completed
2.1 Submission of the plan of activities and contents of the AIDC course at the SAM/IG/14 meeting	09/10/14	13/11/14	ICAO	The SAM/14 reviewed and approved the plan of activities for AIDC implementation
2.2 Review and approval for submission at the Eighth Coordination Meeting of Project RLA/06/901	09/10/14	13/11/14	SAM/IG	
3. Approval of activities by the RCC/8 meeting	25/02/15	27/02/15	RLA/06/901 member States	Completed
3.1 Submission of activities, with their respective cost, for approval.	25/02/15	27/02/15	RLA/06/901 member States	The RCC/8 meeting held in Lima on 25-27 February 2015 approved the activities for initial implementation of

Activity	Start	End	Responsible	Status
				AIDC interconnection in Chile, Colombia, Ecuador and Peru.
4. Search and selection of experts	24/11/14	28/01/15	ICAO	Completed For the performance of the initial activities, three SAM experts with experience in database programming and operation of ACC automated systems were selected: Rubén Silva of Argentina, Mauricio Ferrer of Colombia, and Jorge Merino of Peru.
4.1 Search and selection of 4 experts from SAM States participating in Project RLA/06/901, with experience in the installation, operation and programming of AIDC databases, to perform the activities listed in item 1.	24/11/14	28/01/15	ICAO	
5. Missions to complete AIDC interconnection between States that started tests during the first semester of 2014	06/04/15	01/05/15	3 automation experts ICAO	Completed Missions were conducted for training purposes and to complete tests for AIDC interconnection and operation in Chile, Peru, Ecuador and Colombia.
5.1 Mission to Santiago de Chile	06/04/15	10/04/15	3 automation experts ICAO	Completed Implementation of AIDC activities at the Santiago ACC • AIDC practical course AIDC interconnection tests between: <i>Santiago ACC and Lima ACC</i>
5.1.1 Complete AIDC technical implementation between the Santiago and Lima ACCs	06/04/15	10/04/15		Completed Two-way communication was established in the AIDC interconnection tests between the Thales Top sky system of the Santiago ACC and the
5.1.2 Conduct AIDC course for ATS personnel of the Santiago ACC	06/04/15	10/04/15	3 automation experts ICAO	INDRA Aircon 2100 of the

Activity	Start	End	Responsible	Status
				<p>Lima ACC. The operational tests did not have positive results due to the AIDC limitations in the Santiago ACC.</p> <p>The practical course on AIDC and database programming was conducted, providing training to 16 controllers of the Santiago ACC and 2 aeronautical technicians.</p>
5.2 Mission to Lima:	13/04/15	17/04/15	3 automation experts	<p>Completed Implementation of AIDC activities in the Lima ACC</p> <ul style="list-style-type: none"> • AIDC practical course • AIDC interconnection tests between: <p><i>Lima ACC - Santiago ACC</i> <i>Lima ACC - Guayaquil ACC</i> <i>Lima ACC - Bogota ACC</i></p>
5.2.1 Conduct AIDC course for ATS personnel of the Lima ACC	13/04/15	17/04/15	3 Automation experts ICAO	<p>Completed The practical course on AIDC and database programming was conducted, providing training to 44 controllers of the Lima ACC.</p>
5.2.2 Complete AIDC tests between the Lima ACC and the Guayaquil ACC	13/04/15	17/04/15		<p>Completed AIDC tests between the Lima and Guayaquil ACCs were successfully conducted.</p>
5.2.3 Complete AIDC tests between the Lima ACC and the Bogota ACC	13/04/15	17/04/15		<p>Completed AIDC tests between the Lima and Bogota ACCs were successfully conducted.</p>

Activity	Start	End	Responsible	Status
5.3 Mission to Guayaquil	20/04/15	24/04/15	3 Automation experts of the SAM Region	Completed Implementation of AIDC activities at the Guayaquil ACC <ul style="list-style-type: none"> • Practical course on AIDC • AIDC interconnection tests and pre-operational implementation: Guayaquil ACC - Lima ACC Guayaquil ACC- Bogota ACC
5.3.1 Complete AIDC technical implementation between the Guayaquil ACC and the Lima ACC	20/04/15	24/04/15	3 automation experts of the SAM Region	Completed AIDC technical interconnection was completed, currently in the pre-operational phase.
5.3.2 Complete AIDC technical implementation between the Guayaquil ACC and the Bogota ACC	20/04/15	24/04/15		Completed AIDC technical interconnection was completed, currently in the pre-operational phase
5.3.3 Conduct AIDC course for ATS personnel of the Guayaquil ACC	20/04/15	24/04/15		Completed The practical course on AIDC and database programming was conducted, providing training to 31 controllers of the Guayaquil ACC.
5.4 <i>Mission to Bogota</i>	27/04/15	01/05/15	3 automation experts	Completed Implementation of AIDC activities in the Bogota ACC <ul style="list-style-type: none"> • Practical course on AIDC • AIDC interconnection tests and pre-operational

Activity	Start	End	Responsible	Status
				implementation: <i>Guayaquil ACC - Lima ACC</i> <i>Guayaquil ACC - Bogota ACC</i>
5.4.1 Complete AIDC technical implementation between the Bogota ACC and the Guayaquil ACC	27/04/15	01/05/15	3 automation experts of the SAM Region	Completed The AIDC technical interconnection was completed, currently in pre-operational phase
5.4.2 Complete AIDC technical implementation between the Bogota ACC and the Lima ACC	27/04/15	01/05/15		Completed The AIDC technical interconnection was completed, currently in pre-operational phase
6. First meeting of the AIDC operational implementation working group during the SAMIG/15 meeting	11/05/15	15/05/15	RLA/06/901 member States	Completed. As a result of AIDC technical implementation, the SAM/IG/15 established a group of activities to migrate from the pre-operational phase to the operational between the ACC Bogota, Guayaquil and Lima.
6.1 It is proposed that, as a matter of priority, the SAM/IG/15 meeting do the follow-up of AIDC implementation. Accordingly, the AIDC operational implementation working group will hold its first meeting.	11/05/15	15/05/15	RLA/06/901 member States	Additionally the AIDC messages to be used were defined.
7. AIDC operational implementation ACC Guayaquil ACC Lima ACC Bogota ACC Guayaquil ACC Lima ACC Bogota ACC Lima ACC Santiago	18/05/15	31/12/18	Involved States	
7.1 Definition of the parameters of the AIDC database for the to AID operational interconnection between Colombia, Ecuador and Peru	25/05/15	29/05/15	Involved States	Completed.

Activity	Start	End	Responsible	Status
7.2 Amend letter of operational agreement to include the AIDC for the coordination between the ACC Lima with AAC Bogota, ACC Bogota with ACC Guayaquil and ACC Lima with ACC Guayaquil	15/06/15	30/06/18	Involved States	Valid. Letter of operational agreement between the ACC Guayaquil and ACC Lima was amended and signed. (Oct 2015). On Nov 2016, final review and sign of letter of operational agreement between ACC Lima and ACC Bogota was completed. Pending amendment of letter of agreement between ACC Bogota and ACC Guayaquil.
7.3 Teleconferences to coordinate and follow-up the migration from the AIDC pre-operational phase to the operational for Colombia, Ecuador and Peru	June 2014	Monthly Teleconferences at the beginning of each month until end 2018 depending on the progress, teleconference will be conducted upon needs	Involved States ICAO	Valid. Teleconferences are been carried out on monthly basis since June 2014. On 2016 teleconferences were conducted on: 19 January 23 May 19 February 3 June 18 March 6 September On 2017 teleconferences were held on March 2, June 28, August 24 and December 14. On 2018 one teleconference was held on January 26.
7.4 Complete courses for the ACC Lima and Guayaquil, Bogotá ATS staff as well as staff ARO/AISe	18/05/15	30/12/17	Involved States	Completed.
7.5 Preoperational and operational Implementation of AIDC Guayaquil ACC - Lima ACC	18/05/15	31/12/17	States involved	Valid. Letter of operational agreement with corrections on

Activity	Start	End	Responsible	Status
<p>Bogota ACC - Guayaquil ACC Lima ACC - Bogota ACC Lima ACC – Santiago ACC*</p>				<p>AIDC between ACC Colombia, Ecuador, Panama and Peru were amended (October 2015).</p> <p>Letter of operational agreement between AAC Lima and Guayaquil with the inclusion of AIDC was signed on 23 October 2015. Letter came into force on 31 March 2016.</p> <p>Establishing of a pre-operational period completing the ATS staff training.</p> <p>Operational implementation. AIDC between ACC Lima - ACC Guayaquil in operational phase from August 3, 2015, became operative on 31 March 2016. AIDC operations interrupted on September 2016 due to AIRCON 2100 system problems in Lima ACC. Automated system of Lima was completed by the end of 2017.</p> <p>The AIDC between the ACC Bogota and the ACC Lima and ACC Guayaquil is still in pre-operational phase since May,</p>

Activity	Start	End	Responsible	Status
				2015. * The AIDC operational implementation between the ACC Lima and ACC Santiago has postponed in view of the delay in the modernization of the ACC Santiago automated Center (2017-2019).
8. Other AIDC implementations Bogota ACC - Panama ACC Ezeiza ACC - Montevideo ACC Resistencia ACC - Asunción ACC Curitiba ACC – Resistencia ACC Iquique ACC – Lima ACC Cordoba ACC – Iquique ACC Amazonico ACC – Bogota ACC Amazonico ACC – Lima ACC Asuncion ACC – Curitiba ACC	18/05/15	31/12/18	States involved	
8.1 Definition of parameters of the AIDC database for the operational interconnection of the AIDC		29/12/16	States involved	Valid Defined for AIDC between: Bogota ACC-Panama ACC, Iquique ACC-Cordoba ACC and Resistencia ACC-Asuncion ACC.
8.2 Amendment of letter of operational agreement to include the AIDC for coordination between ACCs.		30/06/18	States involved	Valid
8.3 Carry out teleconferences for coordination and follow-up to the migration from the AIDC pre-operational to operational fase		Monthly tele-conferences at the beginning of each month	States involved ICAO	Valid Teleconferences conducted 19 January 23 May 19 February 3 June 18 March 6 September

Activity	Start	End	Responsible	Status
		until the end of 2018 Depending on the progress tele-conferences will be conducted upon need		For 2017 teleconferences are foreseen for March, (made on 3 March) July, September and December.
8.4 Practical courses addressed to the ATS AIS CNS personnel of the ACC involved, interconnection AIDC		30/11/16	States involved OACI	Completed AIDC Course (Panamá 22 -26 June) 2015 AIDC Course (Paraguay 28 November to 2 December 2016).
8.5 Conduction of AIDC interconnection test between adjacents ACCs		30/12/17	States involved	Valid Successful AIDC interconnection tests between Bogota and Panama. (June 2015). Tests will continue during 2017 in view of the improvement made in the automated system of Panama ACC. AIDC tests Iquique ACC and Lima ACC were successfully conducted on December 2015 and continued until the end of 2017. AIDC tests Iquique ACC and

Activity	Start	End	Responsible	Status
				<p>Cordoba ACC were made in February 2016 with positive results but the ABI message. Tests will continue one end-2017 since Argentina reported that AIDC domestic operations will be completed first.</p> <p>AIDC tests Amazonico ACC and Lima ACC were conducted in March 2016 with problems with ABI messages at the beginning which were overcome by the Company Atech. Tests will continue on first semester 2018.</p> <p>AIDC tests Ezeiza ACC and Montevideo ACC (first semester 2018).</p> <p>AIDC tests Asuncion ACC and Resistencia ACC were made during the week of 28 November 2016 and will restart at the end of 2017.</p> <p>AIDC tests Curitiba ACC and Resistencia ACC (end of the second semester 2017).</p> <p>AIDC tests Curitiba ACC and Asuncion ACC (first semester 2017).</p>

Activity	Start	End	Responsible	Status
				AIDC tests Bogota AAC and Amazonico ACC (First semester 2018)
8.6 Implantation of pre-operational and operational AIDC		31/12/17	States involved	<p>Valid</p> <p>AIDC between Bogota ACC and Panama ACC is in pre-operational phase since October 2015. Operational phase foreseen by the end of the first semester 2018.</p> <p>AIDC between Ezeiza ACC and Montevideo ACC in pre-operational phase foreseen by June 2018 and in operational phase by the end of the second semester 2018.</p> <p>AIDC between Asuncion ACC and Resistencia ACC in pre-operational phase and operational by the end of first semester 2018.</p> <p>AIDC between Iquique ACC and Lima ACC will be in pre-operational phase on May 2018 and operational phase on the end of first semester 2018.</p> <p>AIDC between Iquique ACC and Cordoba ACC in pre-</p>

Activity	Start	End	Responsible	Status
				<p>operational phase and will be on operational phase by the end of first semester 2018.</p> <p>AIDC between Curitiba ACC and Resistencia ACC in pre-operational and operational phases by the first semester 2018.</p> <p>AIDC between Amazonico ACC and Lima pre-operational phase since October 2016, operational phase by the end of first semester 2018.</p> <p>AIDC between Amazonico ACC and Bogota ACC foreseen operational phase by the end of first semester 2018.</p> <p>AIDC between Asuncion ACC and Curitiba ACC operation phase foreseen by second semester 2018.</p>
9. Workshop/Seminars on implementation of ATM automation	22/09/15	31/12/19		
9.1 Workshop/Seminars on implementation of ATM automation	22/09/15	23/10/15		<p>Completed</p> <p>NAM/CAR/SAM Workshop held in Panama from 22 to 25 September 2015.</p> <p>The implementation of interregional AIDC interconnections was analysed.</p>

Activity	Start	End	Responsible	Status
9.2 Workshops/Seminars on AIDC implementation		June 2019	ICAO	Valid.
10. Second meeting of the AIDC operational implementation working group during SAMIG/16	19/10/15	23/10/15	ICAO	Completed
10.1 It is proposed, as a matter of priority, the SAM/IG/16 meeting do the follow-up of AIDC implementation. Accordingly, the second meeting of the AIDC operational implementation working group will be held.	19/10/15	23/10/15	ICAO	Completed Follow-up was made on the operational implementation and programming of activities for operational implementation in 2016.
11. AIDC Implementation meetings 2018-2020	01/01/18	31/12/20	Involved States ICAO	Valid
11.1 Implementation of remaining AIDC interconnections at inter-regional level (Chart CNS II-3 – Plan of ATS voice circuits of the CAR/SAM Air Navigation Regional Plan Volume II eANP) and 8 inter-regional distributed as follows: Colombia (Barranquilla-Kingston, Barranquilla-Curazao and Bogota-CENAMER), Ecuador (Guayquil-CENAMER), Panama (Panama-CENAMER) and Venezuela (Maiquetia-Piarco, Josefa Camejo – Aruba and Maiquetia-San Juan).	01/01/17	31/12/19	Involved States ICAO	Valid
11.2 Inter-regional AIDC interconnections between SAM and AFI Regions: Argentina (1), Brazil (2), French Guiana (1) and Uruguay (1)	01/01/17	31/12/20	Involved States ICAO	Valid
12. Introduction of FF ICE concept	18/04/17	31/12/19		
12.1 Analysis of the application of B1-FICE Module in the Region: Increasing interoperability, efficiency and capability through FF ICE. First stage of application before exit.	18/04/18	31/12/2019	SAM Region States and ICAO	Valid
13. Monitoring to the AIDC interconnection implementation	2015	2020	ICAO	
13.1 AIDC Implementation Meeting ✓ First AIDC Implementation Meeting ✓ Second AIDC Implementation Meeting	March 2016	September 2020	ICAO	Valid AIDC/1 (Lima, Peru, 28-30 March 2016) AIDC/2 (Lima, Peru, 21-23

Activity	Start	End	Responsible	Status
<ul style="list-style-type: none"> ✓ Third AIDC Implementation Meeting ✓ Fourth AIDC Implementation Meeting ✓ Fifth AIDC Implementation Meeting ✓ Sixth AIDC Implementation Meeting 				September 2016) AIDC/3 (Lima, Peru, 24-26 April 2017) Approved by RCC/10 AIDC/4 (Lima, Peru, 16-20 April 2018) AIDC/5 (Lima, Peru, September 2019) AIDC/6 (Lima, Peru, September 2020)