



**Agenda Item 5: Operational implementation of new ATM automated systems and integration of the existing systems**

**a) Follow-up to AIDC performance and operation in the SAM Region**

**STATUS OF AIDC IN COLOMBIA**

**(Presented by Colombia)**

<b>SUMMARY</b>
This information paper presents an operational concept to report on the status of implementation of AIDC in Colombia
<b>References:</b>
<ul style="list-style-type: none"><li>• PANS/ATM (Doc 4444)</li><li>• Manual on AIDC implementation</li><li>• ASIA/PAC ICD</li></ul>

**1. Background**

1.1 In 1971, in order to decongest coordination speech channels, the NAT Region created what at that time was called OLDI (On Line Data Interchange), a concept still used by several ICAO Regions.

1.2 In 1994, the ASIA/PAC Regions saw the need to make OLDI more versatile and thus promoted the creation of another means of coordination, which they called AIDC.

1.3 The GREPECAS 15 meeting held in Brazil in 2008 formulated conclusion [GREPECAS15/36](#):

***MEASURES TO REDUCE OPERATIONAL ERRORS IN THE ATC COORDINATION LOOP BETWEEN ADJACENT ACCs***

The DECLARATION OF BOGOTA, signed in December 2013, *DECLARES its commitment to attain the following regional goals by 2016:*

***14. Interconnection of automated systems (ATS interfacility data communication - AIDC)***  
*100% of automated system interconnections.*

**2. Background**

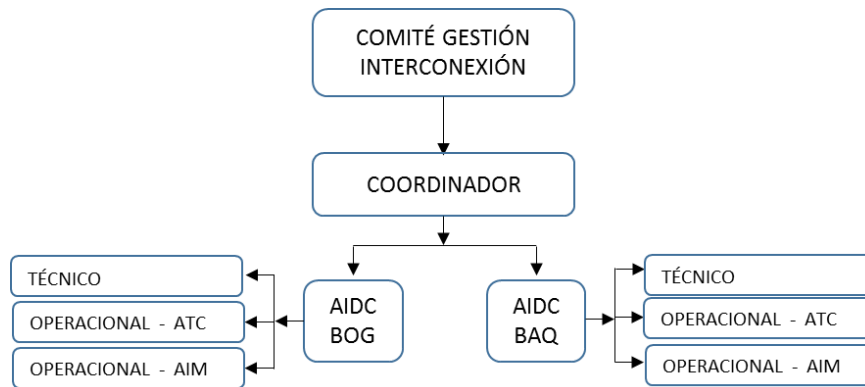
2.1 The SAM/IG14 meeting reviewed a plan of activities for the implementation of the AIDC interconnection in the SAM Region, starting with some of the States along the Pacific coast (Chile, Colombia, Ecuador and Peru), and considered that it should be submitted to the approval of the Eighth coordination meeting of Project RLA/06/901 (RCC/8). In this sense, it formulated conclusion SAM/IG/14-16 – *Approval of the Plan of Activities for the implementation of AIDC.*

2.2 The Eighth meeting of the coordination committee of Project RLA/06/901, upon analysing the plan of activities to be carried out, approved the resources required for the implementation of the foreseen AIDC activities.

3. **Status of implementation**

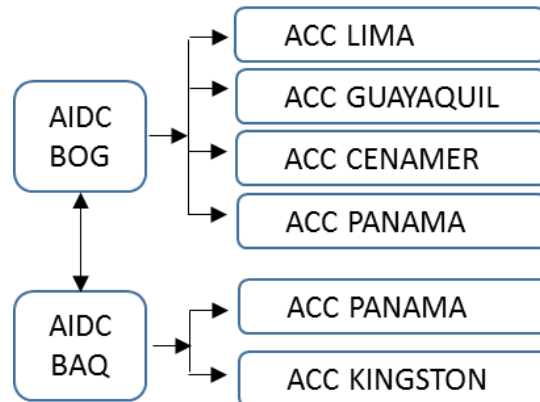
3.1 The SAM/IG15 meeting concluded that priority would be assigned to the implementation between the ACCs of Bogotá-Lima, Bogotá-Guayaquil and Bogotá-Panama. Following a temporary suspension of 6 months in the implementation by Colombia due to the execution by the aeronautical authority of Colombia of the final phase of the transition to the new management facilities, the status of implementation is as follows:

- An AIDC interconnection committee was established in accordance with ICAO recommendations, made up by a *Coordinator*, a sub-committee for the BOG ACC and another for the BAQ ACC, each made up by a *Technical Group*, an *ATC Operational Group* and an *AIM Operational Group*, as shown in the figure below:



**Figure 1. AIDC Work Group**

Based on the above structure, each sub-committee is responsible for the MOU and connection tests with each centre, respectively, as follows:



**Figure 2. Connection areas of each sub-committee**

### **AIDC training completed**

- Additional OJT activities have been scheduled to strengthen the controller-application interaction. These activities will take place in April and early May, since there are plans to resume the pre-operational phase with Lima.
  - In addition to these training activities, strategies are being planned, such as the establishment of SOPs at the work position and application management tutorials.
- Interconnection tests between automated ACCs (completed for Peru, Colombia, Ecuador and Panama)

### **Pre-operational tests (underway)**

- Pre-operational tests with Panama are estimated to begin by the end of October.

### **GUAYAQUIL ACC**

**Pre-operational tests with Ecuador** (underway). They were started on 13 August 2018, with some brief interruptions due to technical reasons. They are currently in the stage of follow-up and mitigation of errors in order to define the transition to the operational phase. Issues encountered:

- During the TOC from the Bogotá ACC to the Guayaquil ACC, although the Guayaquil ACC accepts the transfer properly, the screen in Bogota shows as if it had not been accepted. The system shows that TOC and AOC messages have been properly sent, but the system in Bogota, upon receiving the AOC message from Guayaquil, generates a message sequence error (RMK 65).
- The correction of the aforementioned error is considered of great importance in order to generate confidence among the staff of the Bogotá ACC, because the non-acceptance label generates an additional workload for the controller and the perception that the application is not working.
- Tests have been scheduled in coordination with the DBM group for the period between 15 and 17 April for simultaneous follow-up in Guayaquil and Bogotá.
- Once major errors have been overcome, it is expected that the timetable will be defined in order to start the operational phase.

### **LIMA ACC**

#### **Pre-operational tests with Lima** (temporarily suspended)

- Started on 1 August 2018 through a memorandum of understanding that defined a procedure that contemplated AIDC as primary means of coordination and telephony as secondary means.

- On 17 December 2018, they were temporarily suspended at the request of Lima, due to the convergence of routes in the area of Puerto Leguizamo and traffic conflicts generated by such convergence. Through joint work between Peru and Colombia, several routes were realigned and traffic was rerouted in entry and exit flows, assigning preferential directions. This amendment became effective on 25 April this year. Subsequently, in a teleconference held on 4 April, it was agreed that pre-operational tests would be resumed starting on 6 May for a period of one month. If no significant issues are found, it was proposed that the operational phase start on 6 June.

## **BOGOTÁ-BARRANQUILLA ACC**

### **Pre-operational tests between Bogotá-Barranquilla (underway)**

- Pre-operational tests have been conducted for the implementation of AIDC between the adjacent centres of SKED and SKEC, which would serve as support to these centres in the AIDC implementation process. The main errors are highlighted in order to find their origin and apply mitigation measures to minimise or eliminate errors.
- A test protocol was established with fictitious FPLs where the call sign started with the word “TEST” followed by a serial number that identified each type of test.
- ATS staff still has some problems with the interpretation of the alerts issued by the system regarding coordination errors.
- Once the proposed corrective measures are applied, operational tests will start to check if corrections were appropriate or if, on the contrary, new corrections are required. Once operational tests are conducted satisfactorily, the definitive operational phase will start, with AIDC as the primary coordination method.

## **CENAMER ACC**

- Together with the CENAMER focal point, it was agreed to start connection tests in late April, since adjustments were required in the database of the Bogotá ACC.
- There is one single coordination point (BOLDO) between the two ACCs, so no major problems are expected.

➤ Implementation of AIDC as primary means of coordination (final date: 31 December 2019)

3.2 It is important to note that all efforts have been made to successfully complete this process. However, due to operational adjustments currently underway, strategies are being developed to generate corrective actions to mitigate delays in this implementation.

## **4. Suggested action**

4.1 The Meeting is invited to take note of the information provided herein.

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