International Civil Aviation Organization
North American, Central American and Caribbean Office

WORKING PAPER

AIM/FPL/AIDC — WP/05
24/10/17

Aeronautical Information Management (AIM), Flight Plan (FPL) Error Management and Air Traffic Services Inter-facility Data Communication (AIDC), Meeting (AIM/FPL/AIDC/1)

Tegucigalpa, Honduras, 30 October to 3 November 2017

Agenda Item 2: **Updated Status on States AIDC**

DOMINICAN REPUBLIC AIDC IMPLEMENTATION UPDATE

(Presented by Dominican Republic)

EXECUTIVE SUMMARY	
This working paper presents the status of AIDC implementation in the Dominican Republic since the last face to face meeting of the AIDC Implementation Task Force.	
Action:	Suggested actions are presented in Item 5.1
Strategic Objectives:	• Safety • Air Navigation Capacity and Efficiency • Security & Facilitation • Economic Development of Air Transport • Environmental Protection
References:	• none

1. Introduction

1.1. The Dominican Republic has foreseen the use of AIDC to benefit operational security in terms of error and workload reduction, since the process of determining the ATC system upgrade. This functionality was requested for the new Thales ATC systems, planning an interface with FIR Miami as the first step.

2. Background

2.1. The Dominican Republic acquired and installed two new ATC systems, one in Santo Domingo and another in Punta Cana. These systems were requested to have AIDC functionality, which included both AIDC (PAC) and NAM protocols. The systems became operational on the fourth quarter of 2014.

2.2. The Dominican Republic also received the visit of the AIDC Go Team in September of 2014. The sessions were very helpful for the planning of the activities, and improved the focus of the implementation project.

2.3. Several tests have been carried out between Miami FIR and Santo Domingo FIR, revealing differences in how the funcionality is implemented. The most significant difference is that in the Santo Domingo system all messages up to Class III are implemented, causing unrecognized messages to be sent to the Miami FIR system.

3. Status for this last year

3.1. The last interoperability test with the United States was carried out on February 17 and 18, 2016, with the presence of a Thales technician on site in Santo Domingo. For this test, it was considered that having all messages up to Class III enabled in Topsky would not pose a problem, due to the fact that Class III messages are user-initiated, and so would not be transmitted automatically by Santo Domingo during the tests. The test gave light to additional issues:

a) Carriage return/line feed characters were received between elements in CPL messages generated from Santo Domingo, and also from FAA via AMHS.

b) CPLs were being generated for VFR flights, where the FAA system will only accept IFR flights.

c) The Thales system had interface management messages enabled (IRQ/IRS/TRQ/TRS). The FAA system currently does not use those messages.

d) Difficulties in sending NAM messages manually from Santo Domingo, for testing purposes.

These issues were documented by the supplier for correction.

3.2. Since then there has been some administrative issues that only recently have been sorted out. The system provider has recognized that the separation of messages by class is a requirement specified in the NAM ICD, thus is a compliance issue. The agreement for the software updates, including particular requests for the interaction between the Santo Domingo and Punta Cana systems, was finalized in this past month of October, 2017.

4. Conclusion

4.1. As expressed previous meetings, a very important issue is the adherence to the NAM ICD. Although the document is explicit regarding which messages belong to which class, in practice the implementation is not carried out verbatim. This is the case for the use of CPL/LAM/LRM for Class I, whereas LRM is actually a Class II message. This could be interpreted as a Class II interface, using only LRM from the Class II message set. Classes are defined in the NAM ICD for ease of transition from a non-automated to an automated state, but the particulars between adyacent FIRs will dictate which messages are important at earlier stages. In the case for Santo Domingo, it would be logical to assume that apart from CPL/LAM, LRM would be included early on for feedback on errors, and probably FPL messages for pre-departure clearance will also be adopted early on because of the proximity of Punta Cana airport to the boundary with San Juan. This will depend on how well ATCO adapt to the change.

4.2. From the above, it is stressed that in AIDC implemetations as much flexibility as possible be granted to the use of messages, such that each adjacent States have the ability to use whatever message set considered necessary.

5. Suggested Actions

5.1. The meeting is invited to:

a) take note of the implementation experience described in this working paper;

b) discuss the proposals detailed in the conclusion; and

c) agree on any other action as deemed necessary.

— END —