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

Implementation of AIDC Protocol in Brazil

(Presented by Brazil)

SUMMARY

This working paper presents information about the implementation of AIDC protocol in Brazilian ACC.

REFERENCES

- Thirteenth Workshop/Meeting of the SAM Implementation Group (SAM/IG/13).
- Declaration of Bogotá.

ICAO strategic objectives:	A - *Safety* *B- Capacity and efficiency of air navigation*

1 Introduction

1.1. In the Thirteenth Workshop/Meeting of the SAM Implementation Group (SAM/IG/13) it was remembered that the interconnection of automated systems between adjacent ACCs has the objective of reduce the risk of aeronautical incidents generated by coordination activities between these centers and the improvement, at the same time, of the phases of planning for an efficient control of the flights from/towards the corresponding Flight Information Regions (FIR).

1.2. In this way a set of studies has been made, by means of Project RLA/06/901, with the objective of have a complete view about the theme, including its obstacles, recommended actions and the execution strategy.

1.3. As a result of these studies, Brazilian Administration identified the necessity to make improvements in its automated system of air traffic control, used in its Control Centers (ACC and APP), that result in project SAGITARIO, which includes new functions and a new user interface (HMI). The new system was developed by Atech, a Brazilian company, and is operational in four ACC: Brasilia, Curitiba, Amazonic and Recife. The same occurs with five APP: Brasilia, Rio de Janeiro, Belo Horizonte, Curitiba and Porto Alegre. Also, is planed the implementation, until 2018, of the others APP, totalizing twenty one APP sites.

2. **Discussion**

2.1. The SAGITARIO system has the ability to provide “handoff” capacity through protocols Doc.4444, OLDI and AIDC. Nowadays the Brazilian ACCs uses Doc. 4444 protocol to make the “handoff” between adjacent FIR.

2.2. To meet the Bogotá Statement, the Brazilian Administration decided to adopt the use of AIDC protocol in their ACC until the end of 2015. The interconnection between automated systems of neighbors’ countries will be accomplished during 2016. To do so the following actions were outlined:

1) Conclusion of the SAT (Site Acceptance Test) regarding to the AIDC protocol, interconnecting the ACC-BS with ACC-CW. Tests already carried out, with successful results.

2) Training of controllers from ACCs Amazonic, Brasília, Curitiba and Recife. In execution, according to the following schedule of operational implementation:

a) ACC-CW ⇔ ACC-RE: 08/08/2015
b) ACC-RE ⇔ ACC-BS: 08/15/2015
c) ACC-CW ⇔ ACC-BS: 08/22/2015
d) ACC-CW ⇔ ACC-AZ:08/29/2015
e) ACC-AZ ⇔ ACC-BS: 09/12/2015
f) ACC-AZ ⇔ ACC-RE: 09/19/2015

3) Revision of the operational agreements: to be accomplished during second semester of 2015.

2.3. The ACC Atlantic yet uses X-4000 system. It is planned to be replaced by SAGITARIO until the end of the first semester of 2017.

2.4. Also, Brazil intends to run AIDC interconnection tests with Argentina, which already uses this protocol in their ACC through INDRA AIRCON 2100 system, in order to verify the technical compatibility of these automated systems. Such tests may be carried out in the second semester of 2015.

3. **Suggested actions**

3.1 The Meeting is invited to:

a) Note the information presented;

b) analyze the proposal to run AIDC compatibility tests between Argentina and Brazil; and

c) analyze other aspects related to this theme.
