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SNMC/27 WP08B

INTERNATIONAL CIVIL AVIATION ORGANIZATION

WESTERN AND CENTRAL AFRICA OFFICE

Twenty-seventh Meeting of the AFI Satellite Network Management Committee

(SNMC/27)

(Accra, Ghana, 25-29 November 2019)

Agenda Item 4. Interconnection and interoperability the system through AFISNET

Implementation of AMHS & AIDC

Presented by GCAA

SUMMARY

This working paper present updates to the meeting on the progress made by Ghana towards the implementation of Air Traffic Service (ATS) Inter-facility Data Communication (AIDC).

References: SNMC 26 REPORT 2018

Strategic Objectives: A: Safety; B: Air Navigation Capacity and Efficiency

Related ASBU Bloc 0 Modules, Performance Improvement Areas and Applications:

B0-FICE/PIA2-AIDC

Action by the meeting in paragraph 3

1.0 Introduction

1.1 In the Global Air Navigation Plan, AIDC is the necessary first step for all improvement in ATFM and collaborative decision -making and the baseline of future advance information management process. AIDC seeks to inter-connect Air Traffic Service (ATS) Units in the Air Navigation industry. One advantage of AIDC is that it provides automated coordination, which significantly reduces the workload on Air Traffic Controllers while impacting positively on safety.

1.2 AIDC implementation provides benefits in terms of safety and efficiency in the following ways;

- significantly reduces, the need for oral coordination between ATS units;
- reduces controller workload;
- reduces repetition/read back errors during coordination;



- enables expedited clearance delivery
- provides automatic validation of flight plans

1.3 The SNMC Conclusion 26/05: Implementation of AMHS and AIDC through AFISNET

That;

In order to improve Aeronautical Fixed Service and to comply with the AFI Regional Air Navigation Plan (AFI ANP), SNMC ANSPs increase their cooperation in planning and continuously implementing the AIDC and AMHS links identified respectively in Table 1 and 2 attached to this report

1.4 The above conclusion encouraged cooperation among AFI states in terms of planning and implementation of AIDC.

2.0 Discussion

2.1 In May 2016 a Sub-regional initiative on the implementation of AIDC began with the assistance of the ICAO WACAF Regional Office and participation from the Economic Community of West African States (ECOWAS). This meeting was held in Lomé.

2.2 This resulted in ASECNA (Benin, Burkina Faso, Chad & Côte d'Ivoire, Togo), GCAA (Ghana), NAMA (Nigeria) and the Roberts FIR (Guinea, Liberia & Sierra Leone) deciding to implement AIDC between identified ATSUs. This decision considered the following ATS Units Accra, Abidjan, Dakar, Kano, N'Djamena, Niamey, and Roberts FIRs.

2.3 Since that meeting in Togo and considering the conclusions of successive APIRG and other regional meetings, Ghana has been coordinating with neighboring ATSU, mainly ASECNA to ensure the implementation of AIDC among neighboring states. Accra has so far had a successful AIDC interconnection with Abidjan, Niamey, and Togo.

3.0 Challenges/Constraints

3.1 The initial challenge Ghana had was that our Air Traffic Management (ATM) system was not AIDC capable during the initial stages of the AIDC implementation. However, in July 2017, Ghana installed a new ATM system with AIDC capabilities. Following this, cross-functional teams of CNS and ATM experts from Accra and Abidjan closely collaborated by mail, teleconferences as well as technical visits to their neighboring centers to ensure that AIDC interconnection was achieved Technically and Operationally.



3.2 One other challenge we encountered was the lack of training and awareness of AIDC. Being a new concept, there is the need to train and create adequate awareness of both the technical and operational teams to ensure smooth operations.

The table labeled: APPENDIX provides the roadmap of activities used by Ghana and ASECNA to achieve complete AIDC capability

4.0 Action Required

The meeting is invited to:

- a. Take note of the information provided in the paper.;
- b. Update information on the status of AIDC implementation;
- c. Encourage the ICAO regional offices to provide regular training, workshops, and seminars as a means of increasing awareness on AIDC.
- d. Encourage experience sharing, especially among member states who have already implemented AIDC.

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APPENDIX

| SN | Activity | Current progress | Expected outcomes | Remarks |
|----|------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1. | Identification of ATS Units for AIDC exchanges with Ghana. | Abidjan, Niamey, Lomé/Cotonou, Ouagadougou and Luanda identified as candidates for AIDC exchanges with Ghana | All ATS units for the AIDC exchange identified. | Completed |
| 2. | Agreement on set of AIDC Messages for exchange | Ghana agreed on the proposed set of messages by ASECNA | Reach consensus on the set of AIDC messages to be exchanged. | Completed. |
| 3. | All ATM infrastructure in place | Ghana installed a new ATM system in July 2017 with AIDC capabilities | All the ATS Units identified, must have ATM systems which are AIDC Capable. Testing of the system, expected on July 15, 2017 | Completed for all centers except Luanda |
| 4. | Commencement of Trials | Ghana commenced trials with identified centers. | Trials of AIDC with ASECNA expected to begin on July 15, 2017 | Interconnectivity of Centres established and Trials commenced with Abidjan. |
| 5 | Final implementation | Preparation and Signing of LOAs with Abidjan | All letters of Agreements (LOAs) in place and signed by January 31, 2018. By this date, all difficulties arising from the trials would have been resolved to ensure full AIDC operations- | LOA between Accra and Abidjan finally, signed March 2019. This was after a successful resolution of all initial operational issues encountered. |



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