ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

Twenty-Third Meeting of the AFI Planning and Implementation Regional Group (APIRG/23)

Agenda Item 2: Performance Framework for Regional Air Navigation Planning and Implementation

2.2. Outcome of the Third meeting of the APIRG Infrastructure and Information Management Sub-Group (IIM/SG3)

APIRG IIM SG COM Project 2-Implementation of Ground/Ground Communication (AFTN, AMHS) in Kenya

(Presented by Kenya)

SUMMARY	
Kenya successfully commissioned the AMHS to replace the AFTN conventional switch in 2014 but could not immediately utilize the system awaiting the rest of the States connected to Kenya's Communication Centre to successfully complete the implementation. In this paper Kenya wishes to share the challenges of early installation while calling for the coordination of MOUs between States to facilitate connectivity and interoperability testing noting the interoperability challenges raised during the 13TH Air Navigation Conference. **Action:** The meeting is invited to agree to the recommendations in paragraph 3.	
Strategic Objectives	A-Safety, B. Air Navigation Capacity and Efficiency

1 INTRODUCTION

1.1 The ATS Message Handling System (AMHS) was successfully commissioned in Nairobi to replace the conventional AFTN message switch in 2014.

1.2 The system provides a unified management for the AFTN switch functionality, AFTN/AMHS gateway and AMHS in a single application.

1.3 The AMHS system was upgraded in March 2020 and correctly configured to enable AMHS capabilities. The upgraded system meets the performance requirements according to the ICAO Doc 9880 2nd edition.

1.4 The VSAT backbone (NAFISAT) was upgraded to support the international interconnection and operation of AMHS.

2 DISCUSSION

2.1 AMHS facilitates Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration

2.2 Unlike the AFTN system, the AMHS allows the following:

- Textual information may use the whole IA-5 alphabet (Lowercase is allowed).
- No limitation on line length, message length and on number of recipients
- Allows internetworking leveraging existing IP networks such as LANs, WANs etc.
- Secure communication
- Supports larger Attachments

2.3 The following Steps have been taken for implementation of AMHS:

a) Training of technical personnel and operators
b) Integration of AMHS with AIM system. ATM system to be integrated soon
c) Network connectivity test with communication hubs connected to Nairobi was prioritized with tests with South Africa having been concluded/achieved
d) Test based on EUR_DOC 020 document has been done with South Africa, ATNS and successfully completed.
e) Testing with Mumbai is currently on-going.
f) Signing of MOUs and bilateral agreements with neighboring states and testing to commence.

2.4 The Challenges faced in implementing AMHS

2.4.1 Early installation of the AFTN/AMHS system before others in the region and hence delayed exploitation of the new capabilities and lack of information to benchmark on.

2.4.2 Need for upgrades and refresher training when rolling out the AMHS system.

2.4.3 Delayed implementation of bilateral agreements and MoUs with neighboring states.

3 CONCLUSION

3.1 As a communication hub for the Eastern region, Kenya is ready to support the exchange of data using AMHS and at the same time support States that are yet to transition to AMHS achieve the exchange of AFTN format messages through the gateway. Kenya wishes to also play a key role in the APIRG IIM SG COM Project 2-Implementation of Ground/Ground Communication (AFTN, AMHS)

4 ACTION BY THE MEETING

a) The meeting is invited to note the contents of this paper on the implementation status of AMHS in Kenya.
b) Consider Kenya's request to participate in the APIRG IIM SG COM Project 2-Implementation of Ground/Ground Communication (AFTN, AMHS)
c) Encourage coordination and implementation of bilateral agreements and MoUs with neighboring states to facilitate Network connectivity test among others.
d) States are encouraged to share experiences and challenges faced while implementing AMHS as part of learning process.