International Civil Aviation Organization

Middle East Air Navigation Planning and Implementation Regional Group

Fifteenth Meeting (MIDANPIRG/15)
(Bahrain, 8 – 11 June 2015)

Agenda Item 5.2.2: Specific Air Navigation issues

AERONAUTICAL FIXED SERVICES IN THE MID REGION

(Presented by the Secretariat)

SUMMARY

This paper presents the summary of the activities of the CNS SG and the MIDAMC STG related to the major Fixed Services issues in the Region

Action by the meeting is at paragraph 3.

REFERENCES

- ANSIG/1 Report
- CNS SG/6 Report
- MIDAMC STG/2 Report

1. INTRODUCTION

1.1 The Second meeting of the MID ATS Message Management Center Steering Group (MIDAMC STG/2) was held in Cairo, Egypt, from 10 to 12 March 2015. The meeting was attended by a total of twenty six (26) participants, from ten (10) States (Egypt, Iran, Jordan, Kuwait, Lebanon, Oman, Saudi Arabia, Sudan, United Arab Emirates and Tunisia).

2. DISCUSSIONS

2.1 The meeting may wish to note that according to the study by the MIDAMC, the performance for Baghdad AFTN connections and the connection with the AFI Region require improvement. Accordingly, the meeting suggested additional circuit between Baghdad and Tehran Com Centers and Additional circuit between MID and AFI Regions, mainly due to the missing flight plans. The meeting urged Iraq and Iran to complete the new connection between Baghdad and Tehran Com Centers and requested the ICAO MID Regional Office to coordinate with AFI Region for defining the requirement for additional exit entry point with MID Region.

2.2 The MIDAMC STG/2 meeting recalled, that the CNS SG/6 agreed that the deficiencies related to old AFTN connections be deleted from MANDD, pending the approval of an amendment to the MID FASID to delete these connections from the plan.

2.3 The meeting may wish to note that Lebanon and Jordan provided the Corrective Action Plans (CAP) for the implementation of the long outstanding circuit between Amman and Beirut Com Centres, using the VPN technology and the circuit is operational and both States are in the AMHS interoperability testing stage. Accordingly, the related deficiencies in both States will be deleted.

2.4 The meeting may wish to note that the ANSIG/1 meeting reviewed and updated the MID Regional AFTN plan contained in the MID FASID Doc 9708 to refelect the necessary changes in order to delete those connections that are not implemented since long time and already replaced by other circuits to meet the AFTN requirements in the MID Region. The MIDAMC STG/2 meeting further updated the AFTN Plan and agreed to the following Draft Conclusion:

DRAFT CONCLUSION 2/2: PROPOSAL FOR AMENDMENT TO MID FASID – AFTN PLAN

That, the ICAO MID Regional Office process a proposal for amendment to the MID ANP, Volume II, to amend the FASID - Table CNS1A as at Appendix 4A, in accordance with standard procedure.

2.5 Based on the above the ICAO MID Regional office circulated PfA "Serial No. MID FASID 15/02-CNS". Some comments were received and were incorporated and the approval for the PfA was sent on 12 May 2015.

2.6 The MSG/4 meeting tasked the MIDAMC STG to develop a plan to implement AMHS communication paths between Jeddah-Vienna, and Bahrain-Vienna before 31 March 2015, to enable the exchange of OPMET data in digital format between the MID and EUR Regions.

2.7 Based on the above, MIDAMC accessed the current AFS interconnection, where Athens and Nicosia are the entry/exit points between the MID and EUR Regions, both of them do not have AMHS system in place so far, however, they plan to implement AMHS in near future.

2.8 To establish an AMHS Network between Jeddah-Vienna and Bahrain-Vienna, the work falls into three dimensions:

- AMHS Intra-regional connection in the MID Region, which is the AMHS path between Jeddah/Manama COM Centres and the gateways of the MID Region (Cairo, Beirut COM Centres)
- AMHS Intra-regional connection in the EUR Region, which is the path between Vienna COM Centre and the gateways of the EUR Region (Athens and Nicosia COM Centres)
- The Inter-regional connection between the entry/exit point of MID and EUR Regions

2.9 The MIDAMC STG/2 noted that AMHS path between Jeddah-Cairo COM Centres already exists. Manama and Beirut COM Centres do not exist and should be expedited using the existing bandwidth and it may be increased later, if needed. Furthermore, the establishment of an AMHS link inside the MID Region should be according to the Regional AMHS Implementation plan.

2.10 The meeting recalled that, both Bahrain and Jeddah have CIDIN traffic and the transition from CIDIN to AMHS will require a significant amendment in AFTN, CIDIN and AMHS routing tables not only in the State itself but also in adjacent COM Centres and others in the Network. Therefore, MIDAMC STG/2 agreed that concerned COM Centres and the MIDAMC Operator should identify all dependencies when the CIDIN Relay traffic is taken off a dedicated CIDIN connection in normal routing situations and in all alternate routing cases as well.

2.11 The MIDAMC STG/2 meeting was informed by Tunis that they have already implemented the AMHS system and will be migrating the link with Rome to AMHS by December 2015. Tunis will implement direct link Tunis-Vienna by Dec 2016. Furthermore, Egypt and Tunis will migrate to AMHS by September 2015. Accordingly, the MIDAMC STG/2 meeting agreed to consider Tunis as a back-up plan for the connection of MID ROC Centers and added Tunis in the plan. It was highlighted that Tunis will present a working paper to the next EUR AFS Group meeting on the subject.

2.12 Based on above, the MIDAMC STG/2 meeting developed the plan as at **Appendix A** and agreed to the following Draft Conclusion:

Draft Conclusion 2/3: AMHS path between MID and EUR Regions

That, in order facilitate the establishment of AMHS path between MID and EUR Region and implement the AFS requirements for the ROC centers in the MID Region:

a) ICAO MID Regional office communication the plan in **Appendix A** *to concerned by 15 April 2015; and*

b) Bahrain and Lebanon be urged to expedite AMHS Implementation by December 2015.

2.13 Based on the above, the ICAMID Regional Office communicated the plan to the ICAO EUR Regional Office and urged the concerned States to implement the AMHS. In this regard, Lebanon informed the MID Office that AMHS will be implemented by June 2015.

2.14 The MIDAMC STG/2 meeting was informed that Oman concluded the tests on AMHS with India (Mumbai) and it is under progress with Pakistan (Karachi). Accordingly, the meeting highlighted the importance that Oman provides necessary information, being one of the exist/entry points with the APAC Region.

2.15 The meeting did not have enough information on the AMHS exit/entry with AFI Region, and agreed to discuss in detail all exist/entry for the Region in the next MIDAMC STG meeting. Furthermore, the meeting highlighted the importance of coordination with the other ICAO Regions for the implementation of the AFS network.

2.16 The ANSIG/1 meeting urged States to expedite their AMHS implementation and discouraged the implementation of AFTN and CIDIN Circuits especially at International level and agreed to Draft Conclusion 1/9 emanating from the CN SG/6 meeting:

Why	Support the gradual phase out of AFTN and CIDIN based connections
What	State Letter and AFTN/CIDIN based connections
Who	ICAO and States
When	December 2016

DRAFT CONCLUSION 1/9: AFTN/CIDIN AFS CONNECTIVITY AND AMHS IMPLEMENTATION

That State be urged to,

a) refrain the establishment of new AFTN and CIDIN connections at the International level;

b) gradually phase out the current connections based on AFTN or CIDIN standards; and

c) expedite their AMHS implementation.

2.17 The meeting may wish to note that Five (5) COM Centres in the MID Region have CIDIN links (Bahrain, Egypt, Lebanon, Saudi, and UAE), and all these States already have AMHS system in place. Furthermore, based on the plan developed for the AMHS path between MID and EUR Regions all the MID States having CIDIN will migrate to the AMHS. Accordingly, the MIDAMC STG/2 meeting urged the States that have CIDIN traffic to migrate to AMHS.

2.18 The meeting may wish to recall that the Basic ATS Message Service was primarily conceived for easy intercommunication with users at the AFTN by the gateway facility. However, it includes some enhancement over the legacy AFTN; like length of message, Character set, reliability and integrity of data user.

2.19 The meeting may wish to note that the World Metrological Organization (WMO) initially decided to migrate from alphanumeric codes to BUFR for the representation of Metrological data, therefore, ATS Extended services was introduced to meet the Metrological requirement. Later the WMO decided to use Extensible Markup Language (XML). Since most of ATS systems in the MID can run extended services and specially File Transfer body Part (FTBP), and these services can provide significant operational improvements when used. Accordingly, the MIDAMC STG/2 meeting agreed that trials be conducted for the use of extended services.

2.20 Based on the above the MIDAMC STG/2 meeting agreed that, as an initial step, the trial will be conducted between Jordan and Sudan. However, since these trials have significant impact on the network, the meeting agreed that these trials be conducted on predefined conditions and scenarios. Accordingly, the meeting formed ATS Extended Trial Team composed of experts from (Egypt, Jordan, Kuwait, Iran, Oman, Saudi Arabia, Sudan, Tunis and UAE) and agreed that teleconferences be conducted to facilitate the work of the team and to develop the trial plans. The meeting agreed that the Secretariat to facilitate the teleconferences and to invite all MIDAMC STG Members. The names of the experts who will participate in the Teleconference and developing of the plans is at **Appendix B**.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) urge Amman and Beirut Com Centres to complete the implementation of the circuit and AMHS;

b) urge the concerned States to implement the communication path as in the plan at **Appendix A;**

c) urge States that have CIDIN links to migrate to AMHS by December 2016;

d) encourage States that have exit/entry points to provide timely information on the changes in these Centres;

e) agree on Draft Conclusion in para 2.16; and

f) encourage States to participate in the extended services trial and review and update the list in **Appendix B**.

APPENDIX A

AMHS Plan for ROC in Jeddah and Bahrain					
	Task	Timeframe	Assigned to	Champion	Status
	AMHS Intra-regional Trunk Connections				
1	Establish Jeddah – Beirut IP Network	Jul 2015	Saudi Lebanon	IM MS	
2	Establish Bahrain – Beirut IP Network	Jul 2015	Bahrain Lebanon	YH MS	Already in progress
3	Establish Cairo – Beirut IP Network	Aug 2015	Egypt Lebanon	AF/TZ/MR MS	
4	Establish Bahrain – Jeddah IP Network	Aug 2015	Bahrain Saudi	IM YH	
5	Perform the Interoperability test between Jeddah and Beirut COM centers	Aug 2015	Saudi Lebanon	IB MS	
6	Perform the Interoperability test between Bahrain and Beirut COM centers	Sep 2015	Bahrain Lebanon	MS YH	
7	Perform the Interoperability test between Cairo and Beirut COM centers	Nov 2015	Egypt Lebanon	AF/TZ/MR MS/EK	Depends on IP network availability
8	Perform the Interoperability test between Bahrain and Jeddah COM centers	Dec 2015	Bahrain Saudi	YH IM	
9	Perform the Pre-operational test between Jeddah and Beirut COM centers	Aug 2015	Saudi Lebanon	IM MS	Proposed to be for 14 Days
10	Perform the Pre-operational test between Bahrain and Beirut COM centers	Oct 2015	Bahrain Lebanon	YH MS	
11	Perform the Pre-operational test between Cairo and Beirut COM centers	Dec 2015	Egypt Lebanon	AF/TZ/MR MS/EK	
12	Perform the Pre-operational test between Bahrain and Saudi COM centers	Nov 2015	Bahrain Saudi	YH IM	
13	Place the AMHS link into operation between Jeddah and Beirut COM centers, and updating the Routing tables	Sep 2015	Saudi Lebanon MID AMC	IM MS/EK MN	
14	Place the AMHS link into operation between Bahrain and Beirut COM centers , and updating the Routing tables	Nov 2015	Bahrain Lebanon MID AMC	YH MS/EK MN	
15	Place the AMHS link into operation between Cairo and Beirut COM centers, and updating the Routing tables	Dec 2015	Egypt Lebanon MID AMC	AF/TZ/MR MS/EK MN	
16	Place the AMHS link into operation between Jeddah and Bahrain COM centers, and updating the Routing tables	Feb 2016	Bahrain Saudi MID AMC	YH IM MN	

17	Evaluate the Trunks connections bandwidth and increase it if required between (Bahrain, Beirut, Cairo and Jeddah)	Jun 2016	Bahrain Beirut Cairo Jeddah	YH MS/EK AF/TZ IM	Depends on testing of digital data exchanged
	The AMHS Interconnection with EUR Region Depends on Nicosia and Athens				
18	Establish Cairo – Tunis IP Network			AF/TZ/MR IB/MA	
19	Establish Nicosia – Beirut IP Network			MS/EK	Lebanon ready
20	Establish Nicosia – Jeddah IP Network			IM	Saudi Arabia ready
21	Establish Bahrain – Nicosia IP Network			YH	
22	Establish Cairo – Athens IP Network			AF/TZ/MR	Egypt Ready
23	Perform the Interoperability test between Cairo and Tunis COM centers			AF/TZ/MR IB/MA	
24	Perform the pre operational test between Cairo and Tunis COM centers			AF/TZ/MR IB/MA	
25	Place the AMHS link into operation between Cairo and Tunis COM centers, and updating the Routing tables			AF/TZ/MR IB/MA	
26	Perform the Interoperability test between Athens and Cairo COM centers			AF/TZ/MR IB/MA	
27	Perform the Interoperability test between Bahrain and Nicosia COM centers			YH	
28	Perform the Interoperability test between Nicosia and Jeddah COM centers			IM	
29	Perform the Interoperability test between Nicosia and Beirut COM centers			MS/EK	
30	Perform the Pre-operational test between Athens and Cairo COM centers			AF/TZ/MR	
31	Perform the Pre-operational test between Bahrain and Nicosia COM centers			YH	
31	Perform the Pre-operational test between Nicosia and Beirut COM centers			MS/EK	
32	Perform the Pre-operational test between Nicosia and Jeddah COM centers			IM	
33	Place the AMHS link into operation between Athens and			MID AMC AF/TZ/MR	

	Cairo COM centers, and updating the Routing tables				
34	Place the AMHS link into operation between Bahrain and Nicosia COM centers , and updating the Routing tables			MID AMC YH	
35	Place the AMHS link into operation between Nicosia and Jeddah COM centers, and updating the Routing tables			MID AMC IM	
36	Place the AMHS link into operation between Nicosia and Beirut COM centers, and updating the Routing tables			MS/EK	
37	Evaluate the inter-region connections bandwidth and increase it if required			MID AMC	
38	Transition of all regional AFTN/CIDIN Connections to AMHS	Q1, 2017	All MID States		

Champions:
Bahrain: (YH: Yaseen Hasan)
Egypt: (AF:Ahmed Farghally/TZ:Tarek Zaki/MR: Mohamed Ramzi/Essam Helmi: EH)
Lebanon: (MS: Mohamad Saad / EK: Elias El-Khoury)
Saudi Arabia: (IM: Mr. Ibraheem Mohamed Basheikh)
Tunis: IB: Issam Bouzid / MA: Mr. Mohamed Ali)
MID AMC/Jordan: MN: Muna Ribhi Alnadaf

APPENDIX B

ATS extended Services Trial Team

(ASTT)

S/N	State	Name	Title	Email	Tel. and	Mobile
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