



International Civil Aviation Organization

MIDANPIRG STEERING GROUP

Sixth Meeting (MSG/6)
(Cairo, Egypt, 3 – 5 December 2018)

Agenda Item 5.3: Specific Air Navigation issues

COMMUNICATIONS MATTERS

(Presented by the Secretariat)

SUMMARY

This paper presents an update on several communications matters.

Action by the meeting is at paragraph 3.

1. INTRODUCTION

1.1 The Eighth meeting of the MIDANPIRG Communication, Navigation and Surveillance Sub-Group (CNS SG/8) was held at the ICAO MID Regional Office, Cairo, Egypt, 26-28 February 2018.

2. DISCUSSION

World Radiocommunication Conference (WRC-19)

2.1 The radio spectrum is a scarce natural resource with finite capacity for which demand is constantly increasing. Aeronautical radio services are recognized internationally to be prime users of radio frequencies, without which aircraft operation would not be capable of meeting the global demand for safe, efficient and cost-effective transport.

2.2 The Nineteenth Meeting of the World Radiocommunication Conference (WRC-19) will be held in Sharm El-Sheikh, 28 October to 22 November 2019. ICAO Position for WRC-19, has been coordinated with all ICAO member States and approved by ICAO Council in June 2016. Moreover, the CNS SG/8 urged States to work closely with their States Telecommunication Authorities to ensure that ICAO Position is suitably reflected in the national position of the State and in the regional position; and to support ICAO Position during the WRC-19 meeting. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 8/X: SUPPORT ICAO POSITION TO WRC-19

That, States be urged to:

- a) work closely with the States Telecommunication Authorities to support the ICAO Position to the WRC-19;*
- b) make necessary arrangements for the designated Civil Aviation Personnel to participate actively in the preparatory work for WRC-19 at the national level; and*
- c) attend the preparatory regional spectrum management groups meetings and WRC-19 to support and protect aviation interests*

Frequency Finder Tool

2.3 The meeting may recall that MIDANPIRG/16 urged States to use the Frequency Finder tool for requesting the assignment and deletion of frequencies from the COM list. In this regard, the meeting may wish to note that a new VHF Navigation frequency assignment (ILS/VOR) Module is under development.

2.4 With the introduction of new NAV module and to keep States abreast of the use of the Frequency finder tool, the CNS SG/8 meeting recognized the need to organize Frequency Management Workshop and agreed to the following Draft Conclusion:

DRAFT CONCLUSION 8/2: FREQUENCY MANAGEMENT WORKSHOP

That, ICAO consider the organization of a Workshop on Frequency finder tool for States in the MID Region in 2019-2020.

2.5 The meeting may wish to note that the registered frequencies in the ICAO database (using the Frequency Finder tool) is not up-to-date, and that could result in incompatible frequency assignments. Therefore, the ANSIG/3 meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 3/10: REGISTERED FREQUENCY UPDATE

That, for an optimized frequency assignment process and in order to ensure that assigned frequencies to MID States are not interfering, States that have not yet done so, be urged to:

- a) verify and update existing registered frequencies in the COM list;*
- b) add any missing frequencies with the full details, where applicable;*
- c) delete unused frequencies;*
- d) send the changes in excel format generated by the FF export function; and*
- e) provide the ICAO MID Office with feedback before 15 August 2018.*

Harmful Interference

2.6 During the CNS SG/8 meeting, the issue of harmful interference was raised, it was highlighted that the removal of harmful interference requires coordination among States in close coordination with the ICAO MID Office. In order to improve the coordination and respond to the interference occurrences in timely manner, States should assign focal point for the frequency management issues. Furthermore, the CNS SG/8 meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 8/8: FREQUENCY MANAGEMENT FOCAL POINTS

That, States, that have not yet done so, be invited to assign Frequency Management Focal Points by ~~1 April 2018~~ 15 February 2019, for a better coordination of frequency management issues, including harmful interference.

2.7 In this connection, the ICAO MID Office issued Follow-up State Letter dated 19 March 2018. Nine (9) States (Bahrain, Egypt, Iran, Iraq, Jordan, Lebanon, Qatar, Saudi Arabia, and Sudan) assigned their frequency management focal points.

CRV Project

2.8 The CRV aims to help States achieve a safe, secure, reliable and economical backbone network to handle current and anticipated network traffic demand as well as enabling the new features enhancement in the APAC and MID Regions. MIDANPIRG/16 through Conclusion 16/15 invited States to engage with the recommended supplier to establish individual service contracts.

2.9 The meeting may wish to note that Eight (8) States (Bahrain, Iraq, Jordan, Kuwait, Lebanon, Qatar, Saudi Arabia and UAE) provided their network requirements through the completion of the high level questionnaire.

2.10 During the ANSIG/3 meeting, it was noted that States selected different packages for same connections; and in order to request price revision from CRV service provider, the Secretariat prepared consolidated proposal with unified package for all MID States.

2.11 Based on the above, the ANSIG/3 meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 3/9: MID CRV REQUIREMENTS

That, in order to request price revision from the CRV's Service provider (PCCW Global) for the MID Region, States are urged to complete the MID CRV requirements at Appendix 4F, not later than 1 August 2018.

2.12 In this connection, the ICAO MID Office issued Follow-up State Letter. Six (6) States (Bahrain, Egypt, Jordan, Kuwait, Qatar, and UAE) provided their CRV requirements.

2.13 In the same vein, the CRV service provider (PCCW) offered a bundle discount with around 10-15% less if Six (6) States place order in a similar period.

2.14 The meeting may wish to note that the fifth meeting of the CRV Operation Group will be held in Bang Kong, from 23 to 25 2019. The meeting will review the progress of the CRV project and regional implementation plan. Also, States will be offered to visit the operation Centre of the PCCW. Moreover, the meeting will address the missing messages issue; by reviewing the current AFTN/AMHS routing table of the entry/exit points and the performance of inter-regional connections (Bahrain, Kuwait and Oman). States concerned are required to provide the serviceability report of the past 12 months. Therefore, States are strongly encouraged to participate in the CRV OG/5 meeting.

Missing Messages

2.15 The issue of missing flight plans has been raised several times in ICAO MID meetings. The meeting may wish to note that the following actions have been taken by the MID Office to resolve this problem:

- a) requested the ICAO EUR/NAT Office to consider the establishment of new European Gateway (Rome) with the MID Region;
- b) invited Egypt and Lebanon to establish AMHS inter-regional connection with the current European gateways (Athens and Cyprus);
- c) coordinated with ICAO ESAF Office to establish new inter-regional AMHS connection between Cairo and South Africa; and
- d) invited Bahrain – UAE to migrate their bilateral CIDIN connection to AMHS.

2.16 Furthermore, having additional entry/exit point between the AFI and MID Regions can offer more channel for the inter-regional communications and improve the availability. In this regard, during the CNS SG/8 meeting Sudan requested to consider Khartoum COM Centre as a Main COM Centre and gateway with AFI Region. Having in mind that the advanced technology in Khartoum COM Centre and geographical location of Sudan at the interface area, support Sudan's request.

2.17 Based on the above, the CNS SG/8 meeting requested Sudan to send an official letter to the ICAO MID Office with necessary justifications and agreed to the following Draft Conclusion:

DRAFT CONCLUSION 8/5: KHARTOUM COM CENTRE

That, in order to establish a third Gateway to the AFI Region, Khartoum COM Centre be changed to a main Centre.

ROC and IWXXM Implementation

2.18 The meeting may wish to note that the CNS SG/8 reviewed the Communication requirements to establish ROC and enable OPMET data exchange in IWXXM format. Exchanging the IWXXM format in the current mixed environment (AFTN, Basic and Extended AMHS Connections) need a lot of preparation and monitoring, to ensure messages flow through consistent routes; main and backup routes to eliminate the generation of non-delivery reports (NDRs). Furthermore, the requirement that each State in the MID Region has direct connection with the Main and Backup ROCs, will impose additional cost on the ROCs and MID States. Moreover, the meeting reviewed and updated the ROC connectivity plan at **Appendix A**.

2.19 Based on the above, the CNS SG/8 meeting agreed to the following Draft Conclusions:

DRAFT CONCLUSION 8/3: IMPLEMENTATION OF FTBP

That, States are urged to:

- a) implement FTBP capability at National COM Centres (AMHS is a pre-requisite);*
- b) implement P3/P7 with FTBP capability at the National OPMET Centre (NOC);*
and
- c) set the maximum overall AMHS Message size to 4 MB.*

DRAFT CONCLUSION 8/4: THE COMMUNICATION NETWORK FOR IWXXM DATA EXCHANGE

That, the Main and Backup Regional OPMET Centres (Bahrain and Saudi Arabia) and the Main COM Centres in the MID Region be urged to join the CRV Project in order to enable the exchange of OPMET information in IWXXM format.

SITA Integration

2.20 The meeting may wish to note that SITA integration is a pre-requisite to any AMHS inter-regional connection, in order to keep efficient and regular messages exchange. ICAO APAC, EUR/NAT and SAM Regions have completed the integration successfully. The ESAF and WACAF Regions are also progressing well.

2.21 The CNS SG/8 meeting developed SITA Type X Transition Action Plan and agreed that 23rd June 2018 would be the transition date. However, the transition could not be completed, as Egypt has not been ready for that.

2.22 The meeting may wish to note that, lagging in SITA integration may isolate the MID Region from AMHS upgrade with adjacent Regions, and keep operating the old obsolete protocol "AFTN". A coordination meeting will be held with Egypt, EUROCONTROL, ICAO MID and SITA on 18 December 2018 to resolve the issue.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) urge Egypt to complete the necessary actions to enable SITA Transition in the MID Region; and
- b) endorse the proposed Draft Conclusions.

APPENDIX A

<i>AMHS Plan for ROC in Jeddah and Bahrain</i>					
	Task	Timeframe	Assigned to	Champion	Status
<i>AMHS Intra-regional Trunk Connections</i>					
1	Establish Jeddah – Beirut IP Network.	Jul 2015	Saudi Lebanon	IM MS	Completed
2	Establish Bahrain – Beirut IP Network.	Feb 2016	Bahrain Lebanon	YH MS	Completed
3	Establish Cairo – Beirut IP Network.	July 2016	Egypt Lebanon	AF//MR MS	Completed
4	Establish Bahrain – Jeddah IP Network.	Mar 2016	Bahrain Saudi	IM YH	
5	Perform the Interoperability test between Jeddah and Beirut COM Centers.	July 2015	Saudi Lebanon	IB MS	Completed
6	Perform the Interoperability test between Bahrain and Beirut COM Centers.	July 2016	Bahrain Lebanon	MS YH	Completed
7	Perform the Interoperability test between Cairo and Beirut COM Centers	July 2016	Egypt Lebanon	AF/TZ/MR MS/EK	Depends on IP network availability completed
8	Perform the Interoperability test between Bahrain and Jeddah COM Centers.	July 2016	Bahrain Saudi	YH IM	
9	Perform the Pre-operational test between Jeddah and Beirut COM Centers.	July 2015	Saudi Lebanon	IM MS	Completed
10	Perform the Pre-operational test between Bahrain and Beirut COM Centers.	July 2016	Bahrain Lebanon	YH MS	Completed
11	Perform the Pre-operational test between Cairo and Beirut COM Centers.	July 2016 March 2017	Egypt Lebanon	AF//MR MS/EK	Planned completed
12	Perform the Pre-operational test between Bahrain and Saudi COM Centers.	July 2016	Bahrain Saudi	YH IM	
13	Place the AMHS link into operation between Jeddah and Beirut COM centers, and updating the Routing tables.	July 2015	Saudi Lebanon MID AMC	IM MS/EK MN	Completed July, 2015
14	Place the AMHS link into operation between Bahrain and Beirut COM centers, and updating the Routing tables.	July 2016	Bahrain Lebanon MID AMC	YH MS/EK MN	Completed On 3/5/2016
15	Place the AMHS link into operation between Cairo and Beirut COM centers, and updating the Routing tables.	Aug 2016 April 2017	Egypt Lebanon MID AMC	AF/TZ/MR MS/EK MN	Planned completed

16	Evaluate the Trunks connections bandwidth and increase it if required between (Bahrain, Beirut, Cairo and Jeddah).	March 2019	Bahrain Beirut Cairo Jeddah	YH MS/EK AF/TZ IM	Depends on testing of digital data exchanged Beirut and Cairo increased the bandwidth to 128 kbps
<i>The AMHS Interconnection with EUR Region Depends on Nicosia and Athens</i>					
17	Establish Cairo – Tunis IP Network.	<i>March 2016 July 2016</i>		AF/TZ/MR IB/MA	Both Egypt and Tunisia Ready Coordination in process to implement Completed
18	Establish Nicosia – Beirut IP Network.	<i>Awaiting reply from EUR</i>		MS/EK	Lebanon ready Ongoing
19	Establish Nicosia – Jeddah IP Network.	Dec 2016		IM	Saudi Arabia ready
20	Establish Bahrain – Nicosia IP Network.	Dec 2016		YH	
21	Establish Cairo – Athens IP Network.	Dec 2016		AF/TZ/MR	Egypt Ready Link is ready as same CIDIN link will be used
22	Perform the Interoperability test between Cairo and Tunis COM Centers.	<i>April 2016 August 2016</i>		AF/ /MR IB/MA	Both Egypt and Tunisia Ready Coordination in process to implement Completed
23	Perform the pre operational test between Cairo and Tunis COM Centers.	<i>Q3 2016</i>		AF/ /MR IB/MA	Both Egypt and Tunisia Ready Coordination in process to implement Completed
24	Place the AMHS link into operation between Cairo and Tunis COM Centers, and updating the Routing tables.	<i>Aug 2016</i>		AF/ /MR IB/MA	Both Egypt and Tunisia Ready Coordination in process to implement Completed
25	Perform the Interoperability test between Athens and Cairo COM Centers.	Mar 2017		AF/TZ/MR IB/MA	Athens advised that their system will be installed by Dec. 2016
26	Perform the Interoperability test between Bahrain and Nicosia COM Centers.	Q1 2017		YH	

27	Perform the Interoperability test between Nicosia and Jeddah COM Centers.	Q1 2017		IM	
28	Perform the Interoperability test between Nicosia and Beirut COM Centers.	Q1 2017		MS/EK	Nicosia in tender process
29	Perform the Pre-operational test between Athens and Cairo COM Centers.	Mar 2017		AF/TZ/MR	Athens advised that their system will be installed by Dec. 2016
30	Perform the Pre-operational test between Bahrain and Nicosia COM Centers.	Q1 2017		YH	
31	Perform the Pre-operational test between Nicosia and Beirut COM Centers.	Q1 2017		MS/EK	
32	Perform the Pre-operational test between Nicosia and Jeddah COM Centers.	Q1 2017		IM	
33	Place the AMHS link into operation between Athens and Cairo COM Centers, and updating the Routing tables.	Q1 2017		MIDAMC AF/ /MR	
34	Place the AMHS link into operation between Bahrain and Nicosia COM Centers, and updating the Routing tables.	Q1 2017		MID AMC YH	
35	Place the AMHS link into operation between Nicosia and Jeddah COM Centers, and updating the Routing tables.	Q1 2017		MID AMC IM	
36	Place the AMHS link into operation between Nicosia and Beirut COM Centers, and updating the Routing tables.	Q1 2017		MS/EK	
37	Evaluate the inter-region connections bandwidth and increase it if required.	Q1 2017		MID AMC	
38	Transition of all regional AFTN/CIDIN Connections to AMHS.	Q2 2017	All MID States		Beirut and Cairo removed all Regional CIDIN connections Bahrain-Abu Dhabi connection is the only CIDIN link in the Region

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)

- END -