INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE FIFTH MEETING OF THE COMMUNICATION NAVIGATION AND SURVEILLANCE SUB-GROUP

CNS SG/5

(Cairo, Egypt, 11 – 13 December 2012)

The views expressed in this Report should be taken as those of the MIDANPIRG Communication Navigation and Surveillance Sub-Group and not of the Organization. This Report will, however, be submitted to the MIDANPIRG and any formal action taken will be included in the Report of the MIDANPIRG.

Approved by the Meeting

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History of the Meeting

PART I - HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Fifth Meeting of the MIDANPIRG Communication Navigation and Surveillance Sub-Group (CNS SG/5) was held at ICAO Middle East Regional Office, Cairo, Egypt, 11 – 13 December 2012.

2. OPENING

2.1 On behave of Mr. Mohamed R. M. Khonji, Regional Director, Mr. R.Gulam Regional Officer, Communications Navigation and Surveillance (CNS) welcomed all the delegates to ICAO MID Regional Office and to Cairo, highlighting the important topics that the meeting will address especially the outcome of the MIDANPIRG/13 and the operation of the MID–AMC, Mr. Gulam also highlighted that the meeting will receive information on the recommendation and outcome of the twelve Air Navigation Conference held at ICAO HQ during November 2012.

3. ATTENDANCE

3.1 The meeting was attended by a total of twenty-seven (27) participants, which included delegates from seven (7) States and one (1) Organization. The list of participants is as at **Attachment A** to the Report.

4. OFFICERS AND SECRETARIAT

4.1 The meeting was chaired by Mr. Ali Humaid Al-Adawi Superintendent Standards Public Authority for Civil Aviation Muscat International Airport. Mr. Raza Ali Gulam, Regional Officer, Communications Navigation and Surveillance (CNS) from the ICAO Middle East Cairo Office, was Secretary of the meeting

5. LANGUAGE

5.1 The discussions were conducted in English. Documentation was issued in English.

6. AGENDA

6.1 The following Agenda was adopted:

Agenda Item 1: Adoption of the Provisional Agenda

Agenda Item 2: Follow-up action the MIDANPIRG/13 Conclusions and Decisions relevant to CNS SG

Agenda Item 3: Review ATN-IPS Working Group report

Agenda Item 4: Developments related to CNS

Agenda Item 5: Performance Framework for CNS Implementation in the MID Region

Agenda Item 6: Review of Air Navigation Deficiencies in the CNS field

Agenda Item 7: Future Work Programme

Agenda Item 8: Any other business

7. CONCLUSIONS AND DECISIONS – DEFINITION

7.1 The Sub-Group records its actions in the form of Draft Conclusions and Draft Decisions for further action and adoption by the MIDANPIRG as its Conclusions and Decisions with the following significance:

a) **Conclusions** deal with matters which, in accordance with the Group's terms of reference, merit directly the attention of States on which further action will be initiated by ICAO in accordance with established procedures; and

b) **Decisions** deal with matters of concern only to the MIDANPIRG and its contributory bodies.

7.2 In the same context, the Sub-Group can record its actions in the form of Conclusions and Decisions where no further action is required by the MIDANPIRG or already authorized by MIDANPIRG.

8. LIST OF DRAFT CONCLUSIONS AND DECISIONS

DRAFT CONCLUSION 5/1:	MID AIDC IMPLEMENTATION PLAN
DRAFT CONCLUSION 5/2:	MID AMC OPERATION
DRAFT DECISION 5/3:	ESTABLISHMENT OF MID-AMC BOARD
DRAFT DECISION 5/4:	REVISED LIST OF TASK FOR ATN/IPS WG
DRAFT CONCLUSION 5/5:	SUPPORT ICAO WRC-15 POSITION
DRAFT CONCLUSION 5/6:	MID SURVEILLANCE STRATEGY
DRAFT DECISION 5/7:	TERMS OF REFERENCE OF THE CNS SUB-GROUP

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL

1.1 The meeting reviewed and adopted the Provisional Agenda as at Para. 6 of the History of the Meeting.

REPORT ON AGENDA ITEM 2: FOLLOW-UP ON MIDANPIRG/13 MEETING CONCLUSION AND DECISION RELEVANT TO CNS FIELD

2.1 The meeting recalled that it has been agreed by MIDANPIRG that each subsidiary body review the Conclusions and Decisions related to its terms of reference and decide whether to maintain or replace by an updated Conclusions and Decisions, in order not to have too many Conclusions and Decisions which are ongoing.

2.2 The meeting noted the status of relevant MIDANPIRG/13 Conclusions and Decisions related to the CNS field and the follow up actions taken by concerned parties as at **Appendix 2A** to the Report on Agenda Item 2.

2.3 The meeting urged MID States, to ensure that replies to the State Letters issued by the ICAO MID Regional Office as a follow-up actions to the MIDANPIRG/13 Conclusions and Decisions are sent to the ICAO MID Regional Office, in a timely manner, and to provide feedback on the actions taken by States.

2.4 The meeting agreed in its deliberation to review the Conclusions and Decisions which are still current under the relevant Agenda Item.

CNS SG/5
Appendix 2A to the Report on Agenda Item 2

FOLLOW-UP ACTION PLAN ON MIDANPIRG/13 CONCLUSIONS AND DECISIONS

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 13/5: IMPLEMENTATION OF REDUCED RADAR LONGITUDINAL SEPARATION IN THE MID REGION That, a) States, that have not yet done so; i) be urged to implement the 20 NM radar longitudinal separation; ii) be encouraged to further reduce the radar longitudinal separation within the MID Region to 10 NM, where appropriate; and iii) be invited to agree with their neighbouring FIRs/States on the date of implementation and updating of the LoAs; b) the ATM Regional PFFs be updated to include the reduced radar longitudinal separation as an ATM objective for the MID Region.	Implement the Conclusion	ICAO States	State Letter	30 Aug. 2012	AN 6/3 – 12/165 dated 12 June 2012
CONCLUSION 13/9: MID REGIONAL CONTINGENCY PLAN That, States and users be urged to review the MID Regional Contingency Plan and the revised version of the CRAME-03 at **Appendices 4.2E and 4.2F** to the Report on Agenda Item 4.2, respectively; and provide updates and comments to the ICAO MID Regional Office before **1 September 2012**.	Implement the Conclusion	States ICAO	State Letter	Sep. 2012	AN 6/1.2.1 – 12/166 dated 12 June 2012
CONCLUSION 13/10: POST RVSM IMPLEMENTATION IN THE BAGHDAD FIR That, a) Iraq be urged to implement the actions agreed by the BFPRI-SCM in an expeditious manner to solve the ATC coordination, communication and surveillance issues between Baghdad ACC and the neighbouring ACCs;	Implement the Conclusion	ICAO States/Stakeholders Iraq	State Letter Provide support Implement the Action Plan	15 Jun. 2012 15 Oct. 2012 15 Oct. 2012	State letter sent to Iraq

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
b) States and all stakeholders be invited to support Iraq in the process of normalization of the Baghdad FIR; and c) in case of low progress of implementation of the necessary actions by Iraq before **15 October 2012**, the RVSM operations be suspended in the Baghdad FIR.					
DECISION 13/17: ESTABLISHMENT OF THE MIDAD STUDY GROUP (MIDAD STG) That, the MID Region AIS Database (MIDAD) Study Group (MIDAD STG) is established with Terms of Reference as at **Appendix 4.3B** to the Report on Agenda Item 4.3.	Implement the work programme of the MIDAD STG	MIDANPIRG/13	MIDAD STG established	Apr. 2012	
CONCLUSION 13/23: MID IP NETWORK SURVEY That, States complete the MID IP Network survey as at **Appendix 4.4A** to the Report on Agenda Item 4.4 and provide feedback to the ATN-IPS WG/4 meeting.	Implement the Conclusion	ICAO States	State Letter Completed Survey	May 2012	Actioned
CONCLUSION 13/24: DEVELOPMENT OF IP BASED MID NETWORKS That, States, that have not yet done so, be urged to: a) develop national plans, in line with the ICAO Manual on the Aeronautical Telecommunication Network (ATN) using Internet Protocol Suite (IPS) Standards and Protocols (Doc 9896), for migration to IPv6 taking the existing IPv4 based aeronautical systems into account; b) consider the use of IPv4/IPv6 protocol translation devices only as a provisional solution during the migration; and c) include a requirement for both IPv4 and IPv6 in their ongoing Air Traffic Services (ATS) Message Handling System (AMHS) implementation programmes in order to ensure seamless transition and interoperability.	Implement the Conclusion	ICAO States	State Letter	Sep. 2012	Completed

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 13/25: UPDATE THE AMC SYSTEM That, States be urged to keep the data related to their COM CENTER updated in the EUR-AMC system	Implement the Conclusion	ICAO States	State Letter	Sep. 2012	To be Replaced and superseded by Draft CNS SG5 Conc. 5/2
CONCLUSION 13/26: MID AFTN/CIDIN DIRECTORY That, ICAO MD Regional Office: a) take necessary steps with Jordan to populate the MID AFTN/CIDIN Directory in the MID-AMC; and b) post the MID AFTN/CIDIN Directory in the ICAO MID Website.	Implement the Conclusion	ICAO Jordan States	MID Routing Directory in MID AMC	Dec. 2012	To be Replaced and superseded by Draft CNS SG5 Conc. 5/2
CONCLUSION 13/27: MID-ATS MESSAGE MANAGEMENT CENTRE (AMC) PROJECT That, a) Jordan complete the development of the MID-AMC; b) ICAO MID Regional Office communicate with EUROCONTROL to provide the necessary support for the project; c) ATN-IPS WG and CNS SG develop the necessary legal framework for the use of the MID-AMC; and d) States be encouraged to use the MID-AMC on trial basis for one year.	Implement the Conclusion	ATN-IPS WG ICAO Jordan States	Operations of MID-AMC Trial results	Dec. 2012 Apr. 2013	to be Replaced and superseded by Draft CNS SG5 Conc. 5/2
DECISION 13/28: REVISED TOR OF THE ATN-IPS WORKING GROUP That, the Terms of Reference (TOR) of the ATN-IPS Working-Group be updated as at **Appendix 4.4C** to the Report on Agenda Item 4.4.	Implement the work programme of the ATN IPS WG	MIDANPIRG	Updated TOR	Apr. 2012	Completed
DECISION 13/29: TERMS OF REFERENCE OF THE CNS SUB-GROUP That, the Terms of Reference (TOR) of the CNS SG be updated as at **Appendix 4.4D** to the Report on Agenda Item 4.4.	Implement the work programme of the CNS SG	MIDANPIRG	Updated TOR and Procedural Handbook	Apr. 2012	To be Replaced and superseded By Draft CNS SG5 Dec 5/7

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 13/30: NATIONAL PERFORMANCE FRAMEWORK That, States be urged to: a) develop, update and/or complete their National Performance Framework, including the National Performance Framework Forms (PFFs), ensuring the alignment with and support to the regional performance objectives; b) incorporate the agreed MID Region Performance Metrics into their National performance monitoring process; and c) report relevant data necessary for performance monitoring of the air navigation systems to the ICAO MID Regional Office, on a regular basis, with a view to update the Regional PFFs and monitor the MID Region Performance Metrics.	Implement the Conclusion	ICAO States	State Letter Feedback and reports	30 Jun. 2012 On regular basis	
DECISION 13/32: ESTABLISHMENT OF THE MID AIR NAVIGATION PLAN AD-HOC WORKING GROUP (ANP WG) That, the MID Air Navigation Plan Ad-hoc Working Group (ANP WG) be established to fulfil the requirements set up by MIDANPIRG through Decision 12/49.	Convene the ANP WG/1 meeting	MIDANPIRG/13	ANP WG established	Apr. 2012	Completed
CONCLUSION 13/36: ICAO NEW FLIGHT PLAN FORMAT AWARENESS CAMPAIGNS That, States be urged to conduct internal awareness campaigns on INFPL and invite all stakeholders within their States.	Implement the Conclusion	ICAO States	State letter	Jun. 2012	Completed
CONCLUSION 13/40: MID REGION INFPL IMPLEMENTATION DOCUMENT That, the MID Region INFPL Implementation document be adopted as at **Appendix 4.5N** to the Report on Agenda Item 4.5.	Implement the Conclusion	MIDANPIRG/13	Adopted Document	Apr. 2012	Completed
CONCLUSION 13/41: MID REGION PROCESS FOR MODE S IC CODES ALLOCATION That, the process for the allocation of IC codes for Mode S radars in the MID Region be adopted as at **Appendix4.5O** to the Report on Agenda Item 4.5.	Implement the Conclusion and follow the IC code allocation process	MIDANPIRG/13	Adopted process	April 2012	Completed

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
DECISION 13/42: MID REGION SURVEILLANCE STRATEGY That, the CNS SG review MID Surveillance Strategy and ADS-B Strategy at **Appendices 4.5P** and 4.**5Q** to the Report on Agenda Item4.5 and develop a consolidated MID Surveillance Strategy.	Implement the Decision CNS SG/5 develop consolidated Strategy	CNS SG/5	MID Surveillance Strategy	Dec. 2012	To be Replace and superseded By Draft CNS SG5 Conc. 5/6
CONCLUSION 13/43: ALLOCATION OF 24 BIT AIRCRAFT ADDRESS That, States be urged to: a) allocate 24 bit aircraft address according to Annex 10, Volume III, Part I, Chapter 9, Table 9-1 (allocation of aircraft addresses to States); b) send the allocation list to ICAO MID Regional Office and MIDRMA by 30 September 2012; and c) provide ICAO MID Regional Office and MIDRMA with regular updates to the allocation list.	Implement the Conclusion	ICAO States MIDRMA	State Letter	Sep.2012	Completed
CONCLUSION 13/44: PROTECTION OF GNSS SIGNAL That, States that are listed in the footnotes 5.362B and 5.362C be urged to take necessary measures to remove their names from these footnotes as soon as possible**.**	Implement the Conclusion	ICAO States	State Letter	Jun.2012	Actioned On going
CONCLUSION 13/45: STRATEGY FOR THE IMPLEMENTATION OF GNSS IN THE MID REGION That, the Strategy for implementation of GNSS in the MID Region be updated as at **Appendix 4.5R** to the Report on Agenda Item 4.	Implement the Strategy	MIDANPIRG/13	Strategy	Apr. 2012	Completed
CONCLUSION 13/46: GNSS SURVEY That, States complete the GNSS questionnaire as at **Appendix 4.5S** to the Report on Agenda Item 4.5 and send it to the ICAO MID Regional Office before 1 September 2012.	Implement the Conclusion	ICAO States	State Letter Completed Survey	Sep.2012	Actioned On going

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 13/47: MID REGIONAL PBN IMPLEMENTATION STRATEGY AND PLAN That, the MID Regional PBN Implementation Strategy and Plan be updated as at **Appendix4.5T** to the Report on Agenda Item 4.5.	Implement the Strategy	MIDANPIRG/13	Strategy	Apr. 2012	Completed
DECISION 13/48: ESTABLISHMENT OF MID PBN SUPPORT TEAM (MPST) That, MPST be established with TOR as at **Appendix 4.5U** to the Report on Agenda Item 4.5**.**	Implement Decision	MIDANPIRG/13	MPST established	Apr. 2012	Completed
CONCLUSION 13/49: MID PBN SUPPORT TEAM (MPST) That, a) ICAO MID Regional Office provide the leadership for MPST; b) UAE be the champion for the MPST; c) IATA fully commit and support the MPST; and d) States assign members to MPST and allocate necessary resources	Implement the Conclusion	ICAO States UAE IATA	State Letter MPST Visit	Sep. 2012	Actioned On going
CONCLUSION 13/50: PBN IMPLEMENTATION PROGRESS REPORT That, for future reporting on the status of PBN implementation, States be urged to: a) use the excel sheet as at **Appendix 4.5X** to the Report on Agenda Item 4.5, and PBN Implementation Progress Report Template as at **Appendix 4.5Y** to the Report on Agenda Item 4.5; and b) submit progress reports to ICAO MID Regional Office every six months and whenever major progress is achieved.	Implement the Conclusion	States	Progress Report	Every 6 months	Actioned On going

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION13/61: CENTRALIZED AIR NAVIGATION DEFICIENCY DATABASE That, States and international organizations be invited to: a) test the centralized air navigation deficiency database on iSTARS platform using the guidance in **Appendix 5.1A** to the Report on Agenda Item 5.1; b) update the data as necessary in coordination with the ICAO MID Regional Office; and c) provide feedback to the ICAO MID Regional Office by **31 August 2012**	Implement the Conclusion	ICAO States	State Letter Feedback	30 Jun. 2012 31 Aug. 2013	Actioned On going
CONCLUSION 13/63: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION That, States be urged to: a) review their respective lists of identified deficiencies, develop associated Corrective Action Plans and forward them to the ICAO MID Regional Office prior to 15 June 2012; and b) use the ICAO MID Air Navigation Deficiency Database (MANDD) for submitting online requests for addition, update, and elimination of air navigation deficiencies, until the official launch of the Centralized Air Navigation Deficiency Database on iSTARS.	Implement the Conclusion	ICAO States	State Letter CAP and necessary updates	15 Jun. 2012	Actioned On going

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REPORT ON AGENDA ITEM 3: REVIEW ATN/IPS WORKING GROUP REPORT

3.1 The meeting noted that the ATN/IPS WG/4 meeting was held at the ICAOMID Regional Office, Cairo, 21-23 May 2012. The meeting developed one Conclusion and one Decision also developed list of tasks that will be addressed by the ATN-IPS Working Group in next meeting.

3.2 The ATN/IPS WG/4 meeting noted that the PAN European Network Service (PENS) implemented in Europe is a common facility that allows ANSPs two different IP interconnection possibilities. In cases where the ANSPs have their own IP networks, they can connect their national IP networks to PENS. However, in other cases where the ANSPs do not have their own IP network, the PENS project can install an access point, consisting of a PENS router, at each location where an IP connection needs to be implemented, in order to provide connectivity with the PENS network.

3.3 The meeting agreed with the ATN/IPS WG/4 views that the MID ATN implementation should take place on the basis of regionally agreed requirements, taking into consideration, the System Wide Information Management (SWIM) concept and any other new developments, mainly the Aviation System Block Upgrade (ASBU).

3.4 The meeting noted that ATN/IPS WG/4 developed the analysis for the IP Network surveys. However, the ATN-IPS WG/4 could not complete the task since some States did not provide the reply to the survey. Accordingly, the meeting urged these States do so before ATN-IPS WG/5, and tasked the ATN-IPS WG to complete the analysis. The meeting received updates to the analysis of the IP Network Survey at **Appendix 3A** to the Report on Agenda Item 3.

3.5 The meeting noted that SWIM is listed in Block 1 (target timeline for implementation starting from 2018), in the ASBU concept introduced by ICAO. SWIM has close relation with ASBU module B0-30 which is being introduced starting from 2013. The meeting agreed on the principle on the regional approach in planning for the implementation of SWIM, and identified the need for a study on an appropriate network to support SWIM including possibility of using public internet and/or using a common network service provider.

3.6 The meeting was of the view that the initial activity should be performed to incorporate SWIM into the ATN/AMHS Infrastructure. The meeting agreed with the ATN/IPS WG/4 that the complete SWIM concept is huge and beyond the scope ATN/IPS WG, as it incorporates ATM, AIM, AGA and CNS Infrastructure.

3.7 The meeting recalled ATN/IPS WG/4 proposal for organizing MID–SWIM workshop and noted that the MID Regional Office is planning to hold AIM/SWIM seminar in Istanbul during May 2013 seminar. Accordingly, the meeting encouraged CNS experts and engineers to participate in the AIM/SWIM Seminar.

3.8 The meeting noted MIDANPIRG/13 meeting supported the following operational improvement identified by CNS/ATM/IC Sub-Group:

- Improved Airport Accessibility
- Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration -AIDC
- Service Improvement through Digital Aeronautical Information Management
- Improved Operations through Enhanced En-Route Trajectories

- Improved Flexibility and Efficiency in Descent Profiles (CDOs)
- Improved Flexibility and Efficiency in Departure Profiles
- Improved Runway Safety (A-SMGCS)
- Improved Airport Operations through A-CDM
- Improved access to Optimum Flight Levels through Climb/Descent Procedures using ADS-B.

3.9 The meeting reviewed and updated the draft MID ATS Inter-Facility Data Communication (AIDC) Implementation plan utilizing the advanced Ground-Ground infrastructure Implementation as at **Appendix 3B** to the report on Agenda Item 3 and requested all States to provide their feedback and tasked the ATN-IPS WG/5 meeting to consolidate and present to the Seminar on implementation of AIDC that will be held in May 2013 and to next meeting of CNS/ATM/IC Sub-Group for final review and submit to MIDANPIRG/14. Accordingly, the meeting agreed to the following draft conclusion:

DRAFT CONCLUSION 5/1: MID AIDC IMPLEMENTATION PLAN

That States,

a) support ICAO to organize seminar on implementation of AIDC;

b) participate actively the Seminar; and

c) with support of ICAO secretariat complete the MID AIDC Implementation Plan as at Appendix 3B to the report on Agenda Item 3.

3.10 The meeting noted that state-of-the-art ATS Messaging Handling system (AMHS) has been installed and commissioned in most of the MID states, to replace the obsolete AFTN/CIDIN; new international AMHS links replaced AFTN/CIDIN connection. The introduction of AMHS makes the routing update process complicated and the need for an automated tool with centralized management is imperative. In this regards the European AMC is being used in EUR/NAT region for ensuring optimum consistent routes. Consequently, MIDANPIRG/12 agreed to establish a similar regional project MID ATS Messaging Management centre (MID-AMC), to be hosted and led by Jordan.

3.11 The meeting was apprised on the project activities being divided into two phases which correspond to the goals of the project, the first is the development of AMF-I and some AMF-O functions (network inventory, address management), and Phase two focused on the Routing function development to fulfill the main objective of the project, and these two phases has been successfully completed and the system has been accepted also trials commenced. The meeting congratulated Jordan for the achievement.

3.12 The meeting noted that in order to establish a consistency among the Master AMC (EUR-AMC) and MID-AMC, a meeting between MID-AMC team and EUROCONTROL was held were agreements on Synchronization protocol procedure between two AMCs was concluded, also other operational and administration issues were resolved.

3.13 The meeting noted that with the above Synchronization protocol procedure, EUROCONTROL will no more accept new users from the MID Region and MID –AMC has to create all Regional users.

3.14 The meeting noted that the ATN/IPS WG/4 meeting as a follow-up to MIDANPIRG/13 Conclusion 13/27 *Conclusion 13/27: MID-ATS Message Management Centre (AMC) Project* developed Memorandum of Agreement (MOA) and proposed establishment of MID-AMC Board to be responsible for the MID-AMC operation and developed Terms of Reference (TOR) for the MID-AMC board. The meeting reviewed the MOA and agreed with the content and noted that some MID States already signed the MOA as at **Appendix 3C** the Report on Agenda Item 3.

3.15 The meeting noted that some States require more time to sign the MOA, although the technical experts are fully supporting the MOA.In order to reflect concerns of some States on the MOA, the meeting reviewed and updated the TOR of the MID-AMC Board as at **Appendix 3D** to the Report on Agenda Item 3.

3.16 Based on the above, the meeting agreed that all State start using the MID-AMC, also agreed to the following Draft Conclusion and Decision:

DRAFT CONCLUSION 5/2: MID-AMC OPERATION

That,

a) all MID States start using MID-AMC as of 12 December 2012 and provide feedback to ICAO MID Regional Office and MID-AMC-Project manager;

b) States nominate three MID-AMC users; and

*c) con**ce**rned States sign the MOA as at **Appendix 3C** to the Report on Agenda Item 3 by 1 March 2013*

DRAFT DECISION 5/3: ESTABLISHMENT OF MID-AMC BOARD

*That, MID-AMC Board is established with TOR as at **Appendix 3D** to the Report on Agenda Item 3.*

3.17 The meeting reviewed and updated the MID AFTN/CIDN routing directory as at **Appendix 3E** to the Report on Agenda Item 3 and requested all MID States to provide the updates by 31 December 2012 to ICAO MID Regional Office and MID-AMC. The meeting agreed that the updated directory be published on the ICAO MID Regional Office website and used by the MID-AMC.

3.18 The meeting noted that ATN/IPS WG/4 reviewed and updated the ATN/IPS WG list of tasks. However, the meeting updated the task list as at **Appendix 3F** to the Report on Agenda Item 3 and agreed to the following Draft Decision:

DRAFT DECISION 5/4: REVISED LIST OF TASK FOR ATN/IPS WG

*That, the list of tasks of the ATN/IPS Working Group be updated as at **Appendix 3F** to the Report on Agenda Item 3.*

CNS SG/5
Appendix 3A to the Report on Agenda Item 3

State Bahrain (Manama)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Riyadh	64k	Batelco	10.61.11.12	255.255.255.252	Motorola Vangurd 6435	FXO/FXS	Voice
Tehran	64k	Batelco	172.16.10.2	255.255.255.0	Cisco2800	Serial	AFTN
						FXO/FXS	Voice
Kuwait	64k	Batelco	10.61.11.8	255.255.255.252	Motorola Vangurd 6435	Serial	AFTN-Radar
						FXO/FXS	Voice
Jeddah	64k	Batelco	10.61.11.48	255.255.255.252	Motorola Vangurd 6435	Serial	CIDIN
						FXO/FXS	Voice
Doha-1	64k	Batelco	10.61.11.32	255.255.255.252	Motorola Vangurd 6455	Serial	Radar
						FXO/FXS	Voice
Doha-2	64k	Batelco	10.61.11.56	255.255.255.252	Motorola Vangurd 6455	Serial	AFTN
						FXO/FXS	Voice
Dammam	64k	Batelco	10.61.11.44	255.255.255.252	Motorola Vangurd 6435	FXO/FXS	Voice
AbuDhabi-1	64k	Batelco	10.61.11.12	255.255.255.252	Motorola Vangurd 6435	Serial	Radar
						FXO/FXS	Voice
AbuDhabi-2	64k	Batelco	10.61.11.16	255.255.255.252	Motorola Vangurd 6435	Serial	CIDIN
						FXO/FXS	Voice

Remarks: ……

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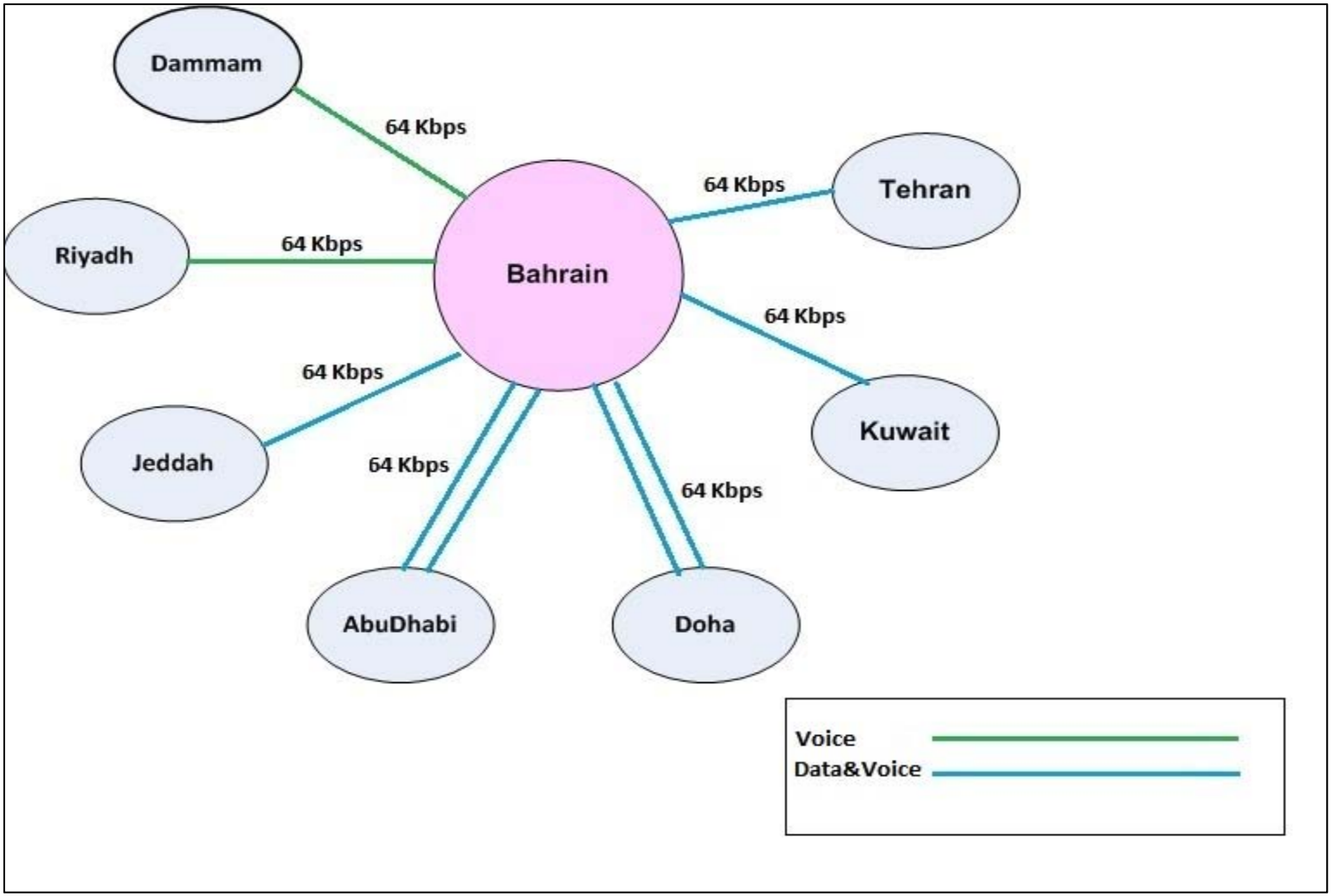

Figure 1: Bahrain Circuit Diagram

State Egypt (Cairo)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Amman	64k	Telecom Egypt (ATM)	10.10.10.2 192.168.12.7	255.255.255.0 255.255.255.0	Motorola Vangurd 6800	IP FXO/FXS	AMHS Voice
Athens	64k	Telecom Egypt (ATM)	192.168.80.2	255.255.255.0	Cisco2800	FXO/FXS	Voice
Athens	64k	Telecom Egypt (ATM)	10.10.10.1	255.255.255.0	Cisco2800	Serial FXO/FXS	CIDIN Voice
Jeddah	64k	Telecom Egypt (ATM)	192.168.80.2	255.255.255.0	Cisco2800	FXO/FXS IP	Voice OLDI, Radar
Jeddah	128k	Telecom Egypt (ATM)	10.10.10.1	255.255.255.0	Motorola Vangurd 6455	IP FXO/FXS	AMHS Voice
Riyadh	64k	Telecom Egypt (ATM)	192.168.80.2	255.255.255.0	Cisco2800	FXO/FXS	Voice
Tripoli	64k	Telecom Egypt (ATM)	10.10.10.1	255.255.255.0	Cisco1700	Serial	AFTN

Remarks: ……

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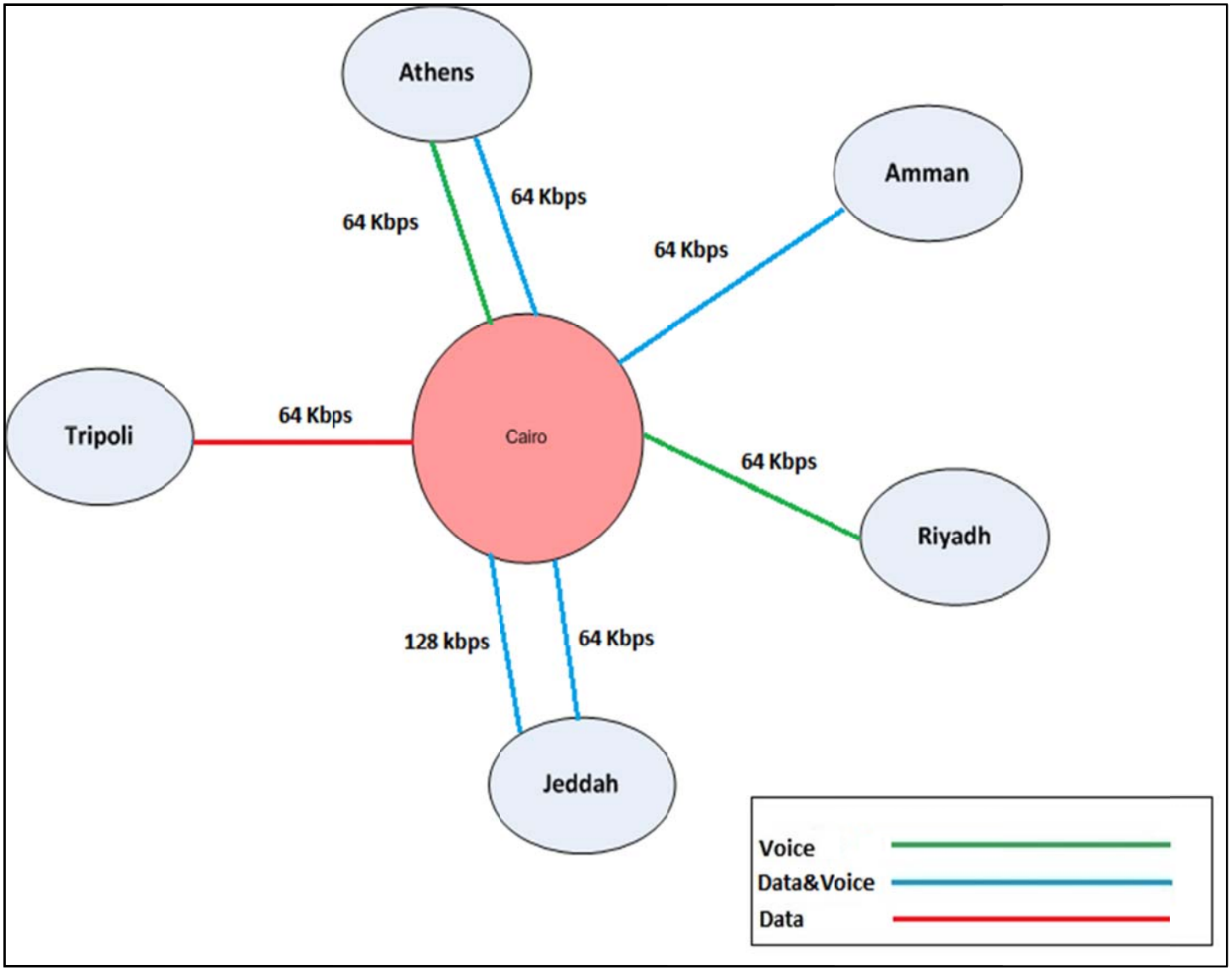
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64 Kbps
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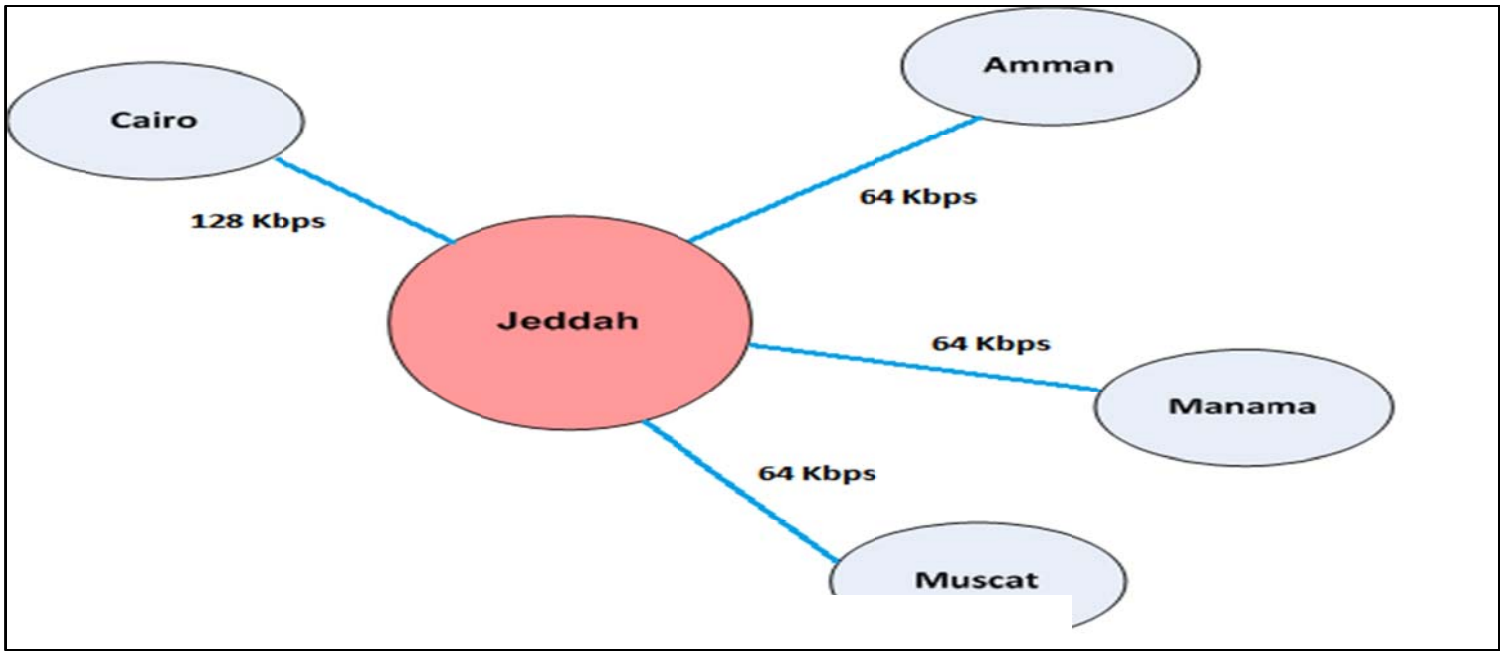
128 kbps
64 Kbps
Jeddah
Voice
Data&Voice
Data

State Saudi Arabia (Jeddah)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Cairo	128k	N/A	192.168.12.0	255.255.255.0	Motorola Vangurd 6455	IP	AHHS
						FXO/FXS	Voice
Amman	64k	N/A	192.168.12.0	255.255.255.0	Motorola Vangurd 6455	IP	AHHS
						FXO/FXS	Voice
Muscat	64k	N/A	192.168.12.0	255.255.255.0	Cisco 2811	IP	AHHS
						FXO/FXS	Voice
Manama	64k	N/A	TBD	TBD	Motorola Vangurd 6435	Serial	CIDIN
						FXO/FXS	Voice

Remarks: .....

.....



State IRAN(Tehran)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Manama	64k	Iran PPT	172.16.10.2	255.255.255.0	Cisco2811	Serial	AFTN
						FXO/FXS	Voice
Baghdad	32k	Iran PPT	192.168.191.14	255.255.255.0	Cisco2811	FXO/FXS	Voice
Ankara	64k	Iran PPT	172.16.13.0	255.255.255.0	Cisco2811	Serial	AFTN
						FXO/FXS	Voice
Kabul	32k	IATA	192.168.10.12	255.255.255.0	Cisco2811	FXO/FXS	Voice
Karachi	64k	Iran PPT	172.16.11.0	255.255.255.0	Cisco2811	Serial	AFTN
						FXO/FXS	Voice
Kuwait	64k	Iran PPT	172.16.12.0	255.255.255.0	Cisco2811	Serial	AFTN
						FXO/FXS	Voice
Bahrain	64k	Iran PPT	172.16.12.0	255.255.255.0	Cisco2811	Serial	AFTN
						FXO/FXS	Voice
Abu Dhabi *	64k	Iran PPT	To be determined	To be determined	Cisco2811	Serial	AFTN
						FXO/FXS	Voice
Muscat *	64k	Iran PPT	To be determined	To be determined	Cisco2811	Serial	AFTN
						FXO/FXS	Voice

Remarks: * The lines will be established by end of July, 2012

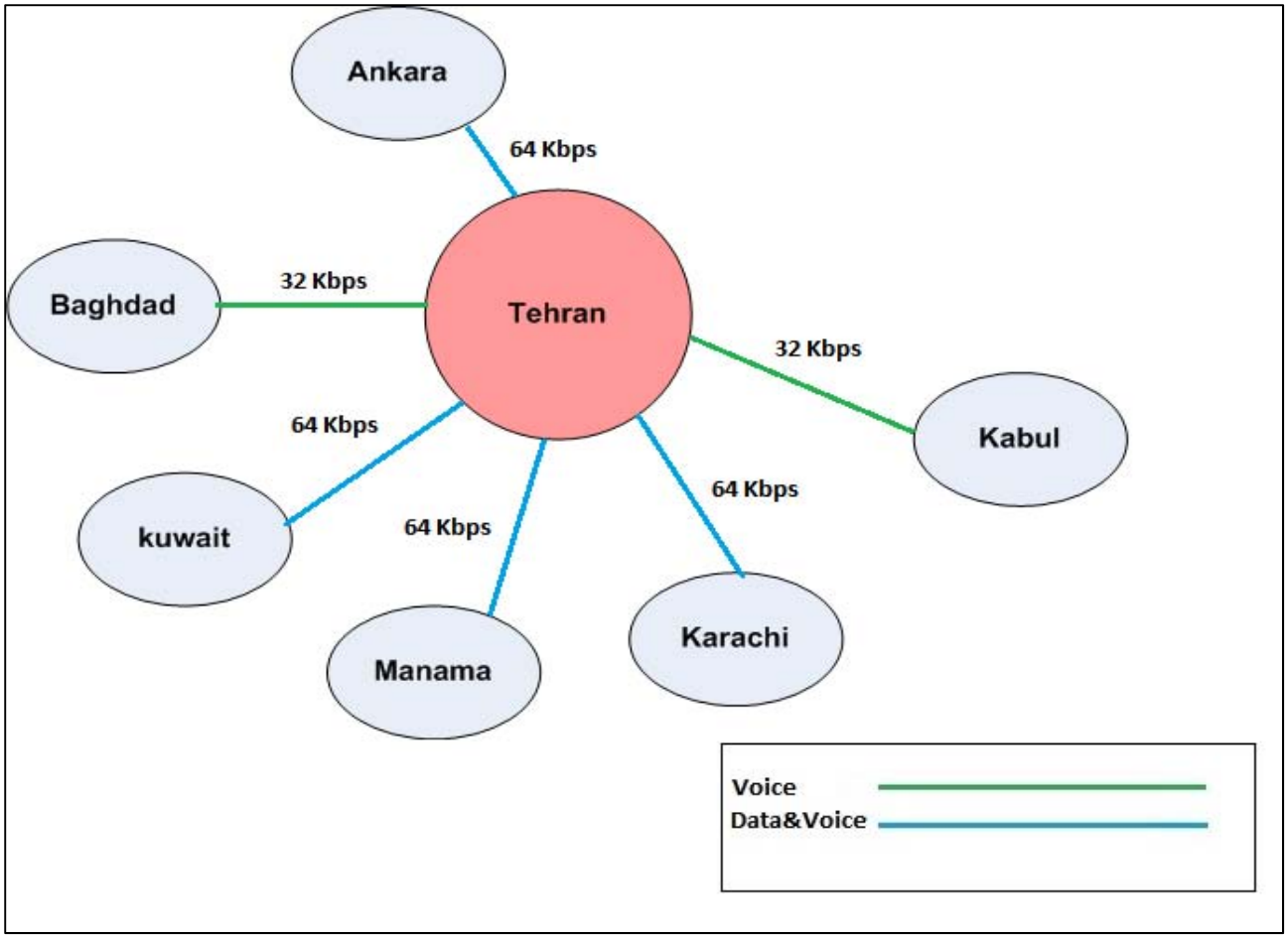


Figure 4: Tehran Circuit diagram

State UAE (Abu Dhabi)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Bahrain1	64K	Etisalat	N/A	N/A	Motorola Vangurd 6455	Radar/	Serial
Bahrain2	64K	Etisalat	N/A	N/A	Motorola Vangurd 6435	AFTN/CIDIN	Serial
Oman	64K	Etisalat	N/A	N/A	Motorola Vangurd 6455	IP	AMHS
						FXO/FXS	Voice
Qatar	128K	Etisalat	N/A	N/A	Motorola Vangurd 6435	Serial	AMHS/radar /OLDI
						FXO/FXS	Voice
Amman**	N/A	Etisalat	94.56.192.202	255.255.255.0	N/A	N/A	AMHS

Remarks: ***** The IP addresses for Bahrain links is configured by ISP and not identified on UAE side.

** The link type between Jordan and Abu Dhabi is over public internet (VPN)

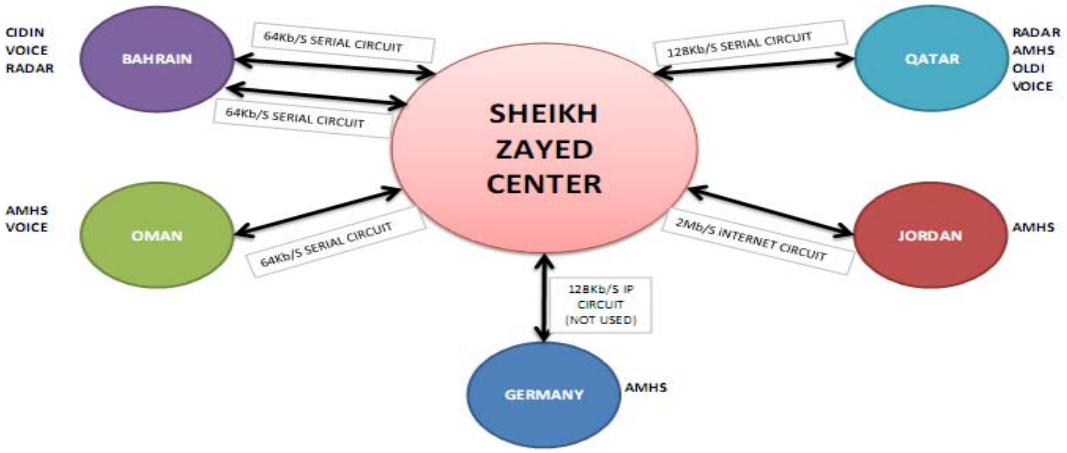


Figure 5: Abu Dhabi Circuit Diagram

State Kuwait(Kuwait)

State	Figure 6: Abu Dhabi Circuit Diagram					I interface	Applications in use
Beirut	64K	N/A	--	--	Motorola Modem 3460	N/A	AFTN
Doha	64K	N/A	--	--	Motorola Modem 3460	N/A	AFTN
Tehran	64K	N/A	172.16.12.0	255.255.255.252	Cisco 2800	N/A	AFTN-Voice
Damascus	64K	N/A	--	--	Motorola Modem 3460	N/A	AFTN
Karachi	64K	N/A	--	--	Motorola Modem 3266	N/A	AFTN
Bahrain	128K	N/A	--	--	Motorola Vanguard 6455	N/A	AFTN, Radar& Voice
Baghdad	64K	N/A	192.168..0.160	255.255.255.0	Motorola Modem 3460	N/A	AFTN-Voice

Remarks:

- The connectivity for circuits (Beirut, Doha, Damascus, Karachi and Bahrain) is pure layer 2 there is no IP configuration on these circuits.
- For Tehran circuit there is IP configuration on the WAN side 172.16.12.2/30 (between Qualitynet and Tehran provider), but there is no IP configuration between Qualitynet and DGCA Kuwait.

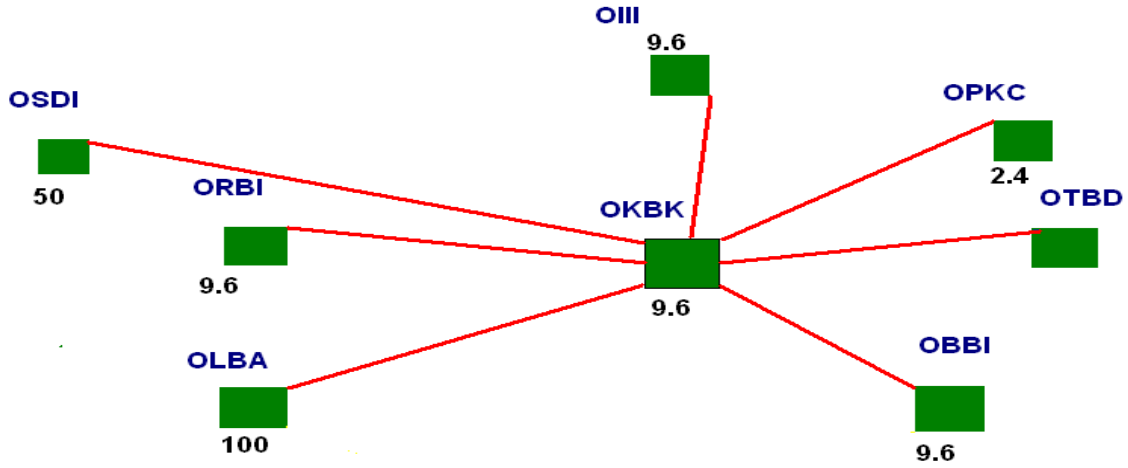
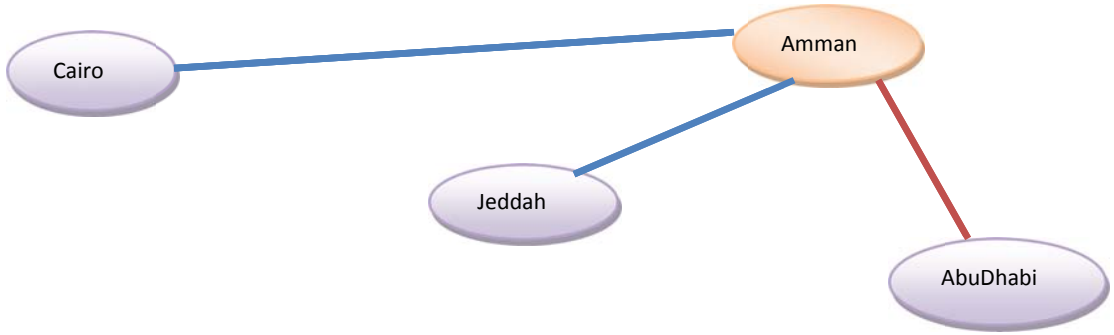


Figure 6: Kuwait Circuit Diagram

State Jordan (Amman)

State	Speed	ISP	IP Address	Net Mask	Router Type	Data end user interface	Applications in use
Cairo	64k	N/A	10.10.10.1	255.255.255.0	Vanguard	N/A	AMHS
						FXO/FXS	Voice
Jeddah	64k	N/A	10.10.10.1	255.255.255.0	Vanguard	N/A	AMHS
						FXO/FXS	Voice
Abu Dhabi*	2M	NITC	193.188.93.19	255.255.255.0	Cisco 5510	N/A	AMHS

* ***The*** link type between Jordan and Abu Dhabi is over public internet (VPN)



Remark: After conducting the IP network Survey, *Common infrastructure characteristics in all states have been found as follows:*

- *Security Measure: Not implemented)**
- *Voice interfaces: FXO/FXS*
- *Voice Protocol Supported: SIP,H.323*
- *All IP circuits is using IPv4*
- *Link Type: Leased Line.*
- *Router interfaces:* Async Serial, Sync Serial ,Ethernet

**Jordan has a firewall device CISCO ASA5510 for Abu Dhabi link(VPN)*

State Iraq

State	Speed		IP Address	Net Mask	Router Type	IP.V	

Iraq did not submit -IP network Survey

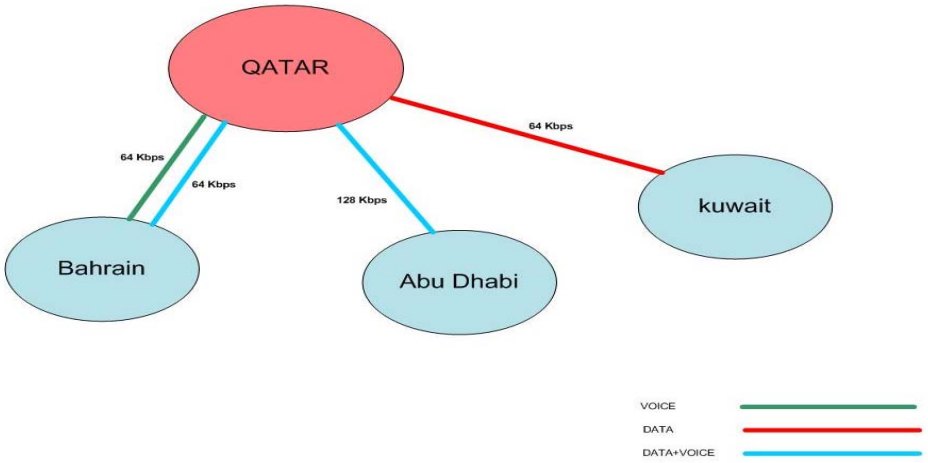
State Oman

State	Speed		IP Address	Net Mask	Router Type	IP.V	

Oman did not submit -IP network Survey

State Qatar

State	Speed		IP Address	Net Mask	Router Type	IP.V	
Bahrain1	64k	Qtel	N/A	N/A	Vanguard6455	FXO/FXS	Voice
Bahrain2	64k	Qtel	N/A	N/A	Vanguard6840	Serial FXO/FXS	AFTN/Radar Voice
AbuDhabi	128k	Qtel	192.168.131.0	255.255.255.0	Vanguard6840	Serial FXO/FXS	AMHS/Radar Voice
Kuwait	64k	Qtel	N/A	N/A	N/A**	Serial	AFTN



State Syria

State	Speed		IP Address	Net Mask	Router Type	IP.V	

Syria did not submit -IP network Survey

State Yemen

State	Speed		IP Address	Net Mask	Router Type	IP.V	

Yemen did not submit -IP network Survey

Remark: After conducting the IP network Survey, *Common infrastructure characteristics in all states have been found as follows:*

- *Security Measure: Not implemented)**
- *Voice interfaces: FXO/FXS*
- *Voice Protocol Supported: SIP,H.323*
- *All IP circuits is using IPv4*
- *Link Type: Leased Line.*
- *Router interfaces:* Async Serial, Sync Serial ,Ethernet

CNS SG/5
Appendix 3B to the Report on Agenda Item 3

**ATS INTER-FACILITY DATA COMMUNICATION (AIDC)
IMPLEMENTATION PLAN**

EXPLANATION OF THE TABLE

Column

1 State/Administration – the name of the State/Administration;

2 Location of AIDC end system – the location of the AIDC end system under the supervision of State/Administration identified in column 1;

3 AIDC Pair – the correspondent AIDC end system;

Location – location of the correspondent AIDC end system

State/Administration – the name of the State/Administration responsible for management of the correspondent AIDC end system

4 AIDC standard used – the AIDC standard adopted for the AIDC connection between the corresponding AIDC pair, AFTN, AFTN/AMHS or ATN;

5 Target Date of Implementation – date of implementation of the AIDC end system;

6 Remarks – any additional information describing the AIDC end system or the AIDC service between the corresponding AIDC pair.

State/Administration	Location of AIDC end system	AIDC/OLDI Pair		AIDC standard used	Target date of Implementation	Remarks
		Correspondent location	Correspondent State/Administration			
1	2	3		4	5	6
Egypt	CANC Cairo	Cairo	Athens	CIDIN	Implemented	OLDI V… IS
		Cairo	Jeddah	AMHS	Implemented	ICD V.2.0
		Cairo	Sudan	AFTN	TBD	ICD V.2.0
	Cairo Air Navigation Center	Cairo	Riyadh	AFTN	TBD	ICD V.2.0
Bahrain						
Iran						
Iraq						
Jordan						
Kuwait						

State/Administration	Location of AIDC end system	AIDC Pair		AIDC standard used	Target date of Implementation	Remarks
		Correspondent location	Correspondent State/Administration			
1	2	3		4	5	6
Lebanon						
Libya						
Oman	Muscat International Airport	MUSCAT	ABUDHABI	AMHS	TBD	AMHS circuit operational need to im
		MUSCAT	MUMBAI	AFTN	TBD	
		MUSCAT	KARACHI	AFTN	TBD	
		MUSCAT	JEDDAH	AFTN	TBD	
		MUSCAT	SALALAH	AFTN	TBD	
		MUSCAT	BAHRAIN	AFTN	TBD	
		MUSCAT	BAHRAIN	AMHS	-	
Qatar						
Saudi Arabia						
Sudan						
Syria						
UAE						
Yemen						

Middle East Regional ATS Messaging Management Center

(MID AMC)

MEMORANDUM

OF AGREEMENT

MEMORANDUM OF
AGREEMENT
On the establishment, operation and management of the
Middle East Regional ATS Messaging Management
Center (MID AMC) fully funded by Jordan

1. PARTIES

1.1 The Parties to this memorandum of agreement are: Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syria, UAE and Yemen. and any other ICAO MID Region States

2. AGREEMENT

- CONSIDERING the urgent need to institute a programme, on a regional basis, for a high quality AFS network and efficient data exchange.

- CONSIDERING the Parties' earlier decision that the Middle East Regional ATS Messaging Management Center (MID AMC) will be funded by Jordan.

The Parties have agreed as follows:

1. The Preamble, MIDANPIRG/13 Conclusion 13/27 and CARC's Letter No. 22/1000/11/2926 dated 3/August/2011 hereto shall constitute an integral part of this Memorandum of Agreement.

2. The Parties to this memorandum of agreement, referred to hereunder as Participating States agree to establish the Middle East Regional ATS Messaging Management Center (MID AMC) and undertake to become its members;

3. The MID AMC shall be managed as a Regional programme; shall have legal personality and shall act through the MID AMC Board;

4. The overall objective of the MID AMC is the promotion of efficiency and safety of air navigation in the Middle East Region through the operation and management, on a sound and efficient basis, of a permanent MID Regional ATS Messaging Management Center;

5. The MID AMC Board, in which each Participating State is entitled to appoint one member (technical), shall retain overall direction and responsibility for the supervision and operation of the MID AMC in accordance with the relevant obligations of the Participating States. The Board shall elect its chairman. It shall inter-alia, supervise and direct the MID AMC, follow-up its activities and reports and assign its priorities;

6. The MID AMC's scope, duties and responsibilities will be those agreed by the Board's first meeting and could be revised by the Board. The MID AMC will be assigned clear tasks in a step-by-step approach starting with MID AMC establishment. The MID AMC duties and responsibilities will include, but will not be limited to the following:

   Collecting and analyzing ATS Messaging data received from MID States as well as from European AMC;

   Establishing a consistency among data from EUROPEAN AMC to the MID AMC and vice versa;

   Ensuring the continuous harmonization of data over an AIRAC cycle

Propose optimum routing based one regional change

Create access accounts and authorization according to regional procedure

Create necessary reports and documents

Submit a report to each Board meeting on MID AMC activities;

7. The Participating States have accepted Jordan's offer to host the MID AMC in Jordan to enable the early establishment and functioning of the MID AMC; for which participating States will not be charged

8. Jordan will provide the offices, software, equipment and local personnel needed for the MID AMC operations and pay for the set up of the MID AMC; at no charge to MID States

9. In case of the need for the MID AMC enhancement or addition for any service it will be decided by the board for the requirement and cost which may be borne by Participating States on equal basis ;

10. The MID AMC staff shall be composed of and provided and funded by Jordan:

1.	MID AMC Project Manager	(Full Time)
2.	MID AMC Project Assistant	(Full Time)
3.	Five MID AMC operators	(Full Time)

11. The MID AMC Project Manager shall manage the project on day-to-day basis and effect coordination with the Chairman of the MID AMC Board. He/She shall submit the MID AMC reports to the Board with copies to the ICAO Regional Office in Cairo;

12. This Memorandum of Agreement shall come into effect on the date it has been signed by the Participating States;

13. Any amendment to this Memorandum of Agreement, shall be carried out by the parties to this Memorandum of Agreement;

14. Any dispute arising out of or relating to this Memorandum of Agreement, shall be settled by direct consultation between the Participating States concerned; and within the framework of MIDANPIRG

15. Any Participating State may withdraw from this Memorandum of Agreement by giving a prior written notice of six (6) months to the MID AMC Board. The obligations assumed by the Participating States under this Memorandum of Agreement shall continue to exist after the withdrawal from this Memorandum of Agreement to the extent necessary to permit the orderly finalization of activities, the withdrawal of personnel, the distribution of funds and assets and the settlement of contractual obligations. Additional funds, if necessary, to cover the above mentioned expenditures shall be provided by the Participating States.

16. The hosting of the MID AMC by Jordan may be terminated at the request of Jordan, with two years advance written notification to the MID AMC Board to allow sufficient time for selection of an alternative location and necessary arrangements for setting up a new MID AMC.

17. All correspondence relating to the implementation of this Agreement shall be addressed to:

MID AMC
Chairman of the MID AMC
Civil Aviation Regulatory
Commission P.O. Box 7547
Amman Jordan

With copy to the:

ICAO Regional Director
ICAO Middle East Regional Office
Egyptian Civil Aviation Complex, Airport Road
P.O Box 85, Airport Post office, Terminal One
11776, Cairo, Egypt

Agreed on behalf of participating States

State	**Signature**	**Title**	**date**
Bahrain			
Egypt			
Iran			
Iraq			
Jordan			
Kuwait			
Lebanon			
Oman			
Qatar			
Saudi Arabia			
Syria			
UAE			
Yemen			

CNS SG/5
Appendix 3D to the Report on Agenda Item 3

MID-AMC Board TOR

1. Terms of Reference (TOR)

1.1 The Terms of Reference of the MID AMC board are:

a) To promote the efficiency and safety of aeronautical fixed services in the MID Region through the operation and management, on a sound and efficient basis, of a permanent MID Regional ATS Messaging Management Center (MID-AMC);

b) Foster the implementation of the Air traffic service Message handling service in the MID Region through provision of the guidance materials and running facilitation tools, utilizing the MID-AMC

1.2 In order to meet the Terms of reference, the MID-AMC board in coordination with ATN-IPS WG reporting to CNS SG shall:

a) Develop a credential procedure for all users on the MID-AMC;

b) develop and maintain guidance materials for MID-AMC users.

c) discuss and identify solution for operational problems may be arising.

d) provide support/guidance to states for AMHS Implementation, and monitor the AMHS activities.

e) assist and encourage states to conduct trial on Implementation of the ATS extended services, and identify operational requirements.

f) identify the need for any enhancement for the MID AMC and prepare functional and technical specifications, and define its financial implications;

g) follow-up on ICAO standards and recommendations on the ATS messaging management

h) define future liabilities and new participating States and ANSPs

i) follow-up and review the work of similar groups in other ICAO Regions.

2. Composition

All MID States and other representatives, who could contribute to the activity of the board, could be invited to participate as observers.

Appendix 3E

INTERNATIONAL CIVIL AVIATION ORGANIZATION
MIDDLE EAST OFFICE

Routing Directory for AFTN and CIDIN Centres in the MID Region

Version 0.5 -October 2011

Table of COM Centres

(listed in alphabetical order by COM Centre location indicator)

Location Indicator	Located	State	Table name
HECA	Cairo	Egypt	HECA
OAKB	Kabul	Afganistan	OAKB
OBBI	Bahrain	Bahrain	OBBI
OEJD	Jeddah	Saudi Arabia	OEJD
OIII	Tehran	Iran	OIII
OJAM	Amman	Jordan	OJAM
OKBK	Kuwait	Kuwait	OKBK
OLBA	Beirut	Lebanon	OLBA
OMAE	Abu Dhabi	U.A.E.	OMAE
OOMS	Muscat	Oman	OOMS
OPKC	Karachi	Pakistan	OPKC
ORBI	Bagdad	Iraq	ORBI
OSDI	Damascus	Syria	OSDI
OTBD	Doha	Qatar	OTBD
OYSN	Sanaa	Yemen	OYSN

(listed in alphabetical order by State name)

State	Location Indicator	Located	Table name
Afganistan	OAKB	Kabul	OAKB
Bahrain	OBBI	Bahrain	OBBI
Egypt	HECA	Cairo	HECA
Iran	OIII	Tehran	OIII
Iraq	ORBI	Bagdad	ORBI
Jordan	OJAM	Amman	OJAM
Kuwait	OKBK	Kuwait	OKBK
Lebanon	OLBA	Beirut	OLBA
Oman	OOMS	Muscat	OOMS
Pakistan	OPKC	Karachi	OPKC
Qatar	OTBD	Doha	OTBD
Saudi Arabia	OEJD	Jeddah	OEJD
Syria	OSDI	Damascus	OSDI
U.A.E.	OMAE	Abu Dhabi	OMAE
Yemen	OYSN	Sanaa	OYSN

1. Explanation of the Tables

(Remark: All tables show examples and do not reflect the real situation)

1.1. Information (COM Centre Characteristic Table)

The COM Centre Characteristic Table gives an overview about operational, technical and administrative information of the COM Centre itself.

1.2. AFTN Routing table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	WS	OO		
B	LCNCA	(OE)		
C	LCNCA	(OE)		
D*	OE	OO		
DT	HE	(LCNCA)	HECAA	LCNCA

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
OA	WS	OO		
OB	N	N		
OE*	OE	OO		
OED	OED	(OE)		
OI	OI	OM		

Destination First letters of an AFTN address (8 letter address) relevant for the Routeing
D* All destination addresses starting with D except those indicated directly below (DT)
DT Destination addresses starting with DT

Actual Main Actual main outgoing AFTN circuit or CIDIN Ax for this Destination address used actual in the AFTN/CIDIN Centre
WS Represents the outgoing AFTN circuit
LCNCA Defined Exit address (Ax) for the Destination address (Ad) starting with these letters
N Represents the national Routing responsibility

Actual Altn. Alternate outgoing AFTN circuit or CIDIN Ax for this Destination address used if the Main is not available.
(OE) Represents the outgoing AFTN circuit as Alternate
(LCNCA) Defined the Exit address (Ax) as alternate for the Destination address (Ad)
N Represents the national Routing responsibility

(Terms in brackets: For the use of the Exit Address or the AFTN circuit as alternate, co-ordination is required).

Planned Main Planned to replace the Actual Main in the future on a defined date
Planned Altn. Planned to replace the Actual Alternate in the future on a defined date

1.3. CIDIN Routing Table

CIDIN Exit Address	Actual Main VCG	Actual Altn. VCG	Planned Main VCG	Planned Altn. VCG
HECA_	OLBA	LCNC	HECA	OLBA
LCNC_	LCNC	OLBA		

CIDIN Exit Address	Actual Main VCG	Actual Altn. VCG	Planned Main VCG	Planned Altn. VCG

CIDIN Exit Address First four letters of the Exit addresses (Ax) relevant for the selection of connection to be used.

Actual Main VCG Shows the first outgoing direction (main connection path to an adjacent COM Centre) used at first or reaching the Exit centre (Ax). This path is represented by a Virtual Circuit Group (VCG), see 5.4.
Actual Altn. VCG Shows the alternate outgoing direction (main connection path to an other adjacent COM Centre) used in case of unavailability of the main VCG for reaching the Exit centre (Ax). This path is represented by a Virtual Circuit Group (VCG), see 5.4.

(Terms in brackets: For the use of the Actual Alternate VCG, co-ordination is required.)

Planned Main VCG Planned to replace the Actual Main VCG in the future on a defined date.
Planned Altn. VCG Planned to replace the Actual Alternate VCG in the future on a defined date.

1.4. Virtual Circuit Groups (VCG)

Actual VCG	Actual Prim.VC	Actual Secondary VC's		
LCNC	LCNC1			
OLBA	OLBA			

Planned VCG	Planned Prim.VC	Planned Secondary VC's		
HECA	HECA1			
		OLBA		

Actual VCG A Virtual Circuit Group consists of a number of Virtual Circuits (VC) that connect two, and only two CIDIN Centres. A Primary-type VC is always present and a Secondary-type VC is optional. Within this group, the selection of the VC is local matter. VC groups form redundant connections between adjacent CIDIN Centres.

Actual Primary VC Primary Virtual Circuit, established actual either as a PVC (Permanent Virtual Circuit) or SVC (Switched Virtual Circuit). In case of SVC no Secondary Virtual Circuits are recommended.

Actual Secondary VC's Actual Secondary VC's: Secondary Virtual Circuits, established actual either as a set of PVC (Permanent Virtual Circuit) and/or a SVC (Switched Virtual Circuit). There is no maximum limit to the number of PVC's forming a VCG.

Planned Primary VC The planned Primary Virtual Circuit will replace the Actual Primary VC in the future on a planned date.

Planned Secondary VC's The planned Secondary Virtual Circuits will replace the Actual Alternate VC (see below).

1.5. Circuit Characteristics

Situation recorded in Nov 1998		
Link to	Protocol	Capacity (bps)
HECA	AFTN	2 x 2.4k
OLBA	CIDIN	1 x 9.6k
OKBK	AFTN	1 x 300
OOMS	AFTN	1 x 50
VTBB	AFTN	1 x 2.4k

Planned		
Protocol	Capacity(bps)	"O" date
CIDIN	1 x 9.6k	TBD

Link to Connection to the COM Centre represented by the location indicator.

Protocol Protocol used actual on this link (conventional AFTN, AFTN over X.25, CIDIN via PVC or CIDIN via SVC).

Capacity (bps) Actual capacity available (bit per seconds). An asterisk (*) indicates a network connection.

Planned Protocol Protocol planned to be used on the upgraded/new link.

Capacity (bps) Planned capacity of the link (bit per seconds).

"O" date Planned operational date of the upgraded/new link.

OBBI - Bahrain - Bahrain

Information

Operator:	
Phone:	+973 17321185
- -	+973 17321184
Fax:	+973 17321905
Telex:	---
Email:	caacomms@caa.gov.bh
AFTN:	OBBIYFYX
CIDIN/AFTN:	OBBIM
CIDIN/OPMET:	---
SITA:	BAHAPYF

Technical operator:	
Phone:	+973 17329004
- -	+973 17329005
Fax:	+973 17321905
Telex:	---
Email:	sysops@caa.gov.bh
AFTN:	OBBIYFYX
CIDIN/AFTN:	OBBIM
CIDIN/OPMET:	---
SITA:	BAHAPYF

Supervisor:	
Name:	EBRAHIM ALQASIMI
Phone:	+973 17321186
Fax:	+973 17329966
Telex:	
Email:	ealqasimi@caa.gov.bh
AFTN:	OBBISACS
CIDIN/AFTN:	OBBIM
CIDIN/OPMET:	---
SITA:	BAHAPYF

Technical supervisor:	
Name:	SALAH MOHAMED ISMAIL
Phone:	+973 17329003/4
Fax:	+973 17321905
Telex:	---
Email:	salahm@caa.gov.bh
AFTN:	OBBIYFYX
CIDIN/AFTN:	OBBIM
CIDIN/OPMET:	---
SITA:	BAHAPYF

Management:	
Name:	MOHAMED ALI SALEH
Phone:	+973 17321187
Fax:	+973 1732996
Telex:	---
Email:	masaleh@caa.gov.bh
AFTN:	OBBIHACX
CIDIN/AFTN:	OBBIM
CIDIN/OPMET:	--
SITA:	BAHAPYF

Postal Address:
CIVIL AVIATION AFFAIRS
AIR NAVIGATION DIRECTORATE
P.O.BOX: 586
MUHARRAQ
BAHRAIN

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	OBBIA
AFTN OPM/NM:	OBBIM
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN	Yes	
CIDIN/OPMET		
AIS		
MOTNE		
OPMET		
SITA	Yes	

OBBI - Bahrain - Bahrain

AFTN Routing Table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	WS	OO		
B	LCNCA	OE	LCNCA	OLBAA
C	LCNCA	OE	LCNCA	OLBAA
D	OE	OO		
E	LCNCA	OE	LCNCA	OLBAA
F	OE	OO		
G	OE	OO		
H*	OE	OO		
HA	OE	00		
HC	OE	OO		
HD	OE	OO		
HE	OE	OO		
HH	OE	OO		
HL	OE	OO		
HS	OE	OO		
K	LCNCA	OE	LCNCA	OLBAA
L*	LCNCA	OE	LCNCA	OLBAA
LB	LT	LCNCA		
LL				
LT	LT	LCNCA		
M	LCNCA	OE	LCNCA	OLBAA
N	WS	OO		

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
OA	OKBK	OO		
OB	N	N		
OE*	OE	OO		
OED	OED	OE		
OI	OI	OMAEA		
OJ	OE	OLBAA		
OK	OK	OLBAA		
OL	OLBAA	OK		
OM	OMAEA	OO		
OO	OO	OE		
OP	OK	OE		
OR	OLBAA			
OS	OLBAA	OK		
OT	OT	OK		
OY	OE	OO		
P	LCNCA	OE	LCNCA	OLBAA
R	WS	OO		
S	LCNCA	OLBAA	LCNCA	OLBAA
T	LCNCA	OLBAA	LCNCA	OLBAA
U	LC	OE		
V*	WS	OO		
VA	OO	OE		
VE	OO	OE		
VI	OO	OE		
VN	OO	OE		
VO	OO	OE		
W	WS	OO		
Y	WS	OO		
Z	OO	OE		

OBBI - Bahrain - Bahrain

CIDIN Routing Table

CIDIN Exit Address	Actual Main VCG	Actual Altn. VCG	Planned Main VCG	Planned Altn. VCG
HECA	OLLL	LCNC		
LCNC	LCNC	OLLL		
OBBI	LCNC	OLBA		
OLBA	OLLL	LCNC		
OMAE	OMAE			
OEJN	OEJN	LCNC		

CIDIN Exit Address	Actual Main VCG	Actual Altn. VCG	Planned Main VCG	Planned Altn. VCG

CIDIN Virtual Circuit Group

Actual VCG	Actual Prim.VC	Actual Secondary VC's		
LCNC	LCNC1			
OLLL	OLLL1			
OMAE	OMAE1			

Planned VCG	Planned Prim.VC	Planned Secondary VC's		

OBBI - Bahrain - Bahrain

Circuit Characteristics

Situation recorded in October 2011			Planned		
Link	Protocol	Capacity (bps)	Protocol	Capacity (bps)	"O" date
LCNC	CIDIN	1 x 9.6K			
LTAA	AFTN	1 x 50	1 x 19K		1QTR 2012
OEDF	AFTN	1 x 64K			
OEJD	CIDIN	1 x 64K	AMHS		1QTR 2012
OIII	AFTN	1 x 300			
OKBK	AFTN	1 x 64K			
OLBA	CIDIN	1 x 9.6K			
OMAE	CIDIN	1 x 64K			
OOMS	AFTN	1 x 9.6K	AFTN	1 X 64K	1QTR 2012
OTBD	AFTN	1 x 64K			
WSSS	AFTN	1 x 64K	AMHS		1QTR 2012

HECA - Cairo - Egypt

Information

Operator:	
Phone:	202 6375639
- -	202 2654006
Fax:	202 2678546
Telex:	202 92443 UN
Email:	
AFTN:	HECAYFYX
CIDIN/AFTN:	HECAM
CIDIN/OPMET:	
SITA:	CAIXYYF

Technical operator:	
Phone:	202 2657829
- -	202 2657923
Fax:	
Telex:	
Email:	
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Supervisor:	
Name:	ahmed abas
Phone:	202 22657886
Fax:	
Telex:	202 92443 UN
Email:	
AFTN:	HECAYFYS
CIDIN/AFTN:	HECAM
CIDIN/OPMET:	
SITA:	CAIXYYF

Technical supervisor:	
Name:	mahmoud ezzat
Phone:	202 22650781
Fax:	
Telex:	202 92443 UN
Email:	
AFTN:	HECAYFYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Management:	
Name:	mahmoud ramadan
Phone:	20222657959
Fax:	202 22685293
Telex:	
Email:	mahmoud.ramadan53@gmail.com
AFTN:	HECAYTYX
CIDIN/AFTN:	HECAM
CIDIN/OPMET:	
SITA:	CAIXYYT

Postal Address:
National Air Navigation Services
Company
Cairo Air Navigation Centre
Cairo Airport Road
Cairo, Egypt

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	HECAA
AFTN OPM/NM:	HECAM
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN	Yes	
CIDIN/OPMET		
AIS		
MOTNE		
OPMET		
SITA	Yes	

HECA - Cairo - Egypt

AFTN Routing Table

Desti-nation	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	OEJNA	LGGGA		
B	LGGGA	OLBAA		
C	LGGGA	OLBAA		
D	DT	LGGGA		
EB	LGGGA	OLBAA		
ED	LGGGA	OLBAA		
EE	LGGGA	OLBAA		
EF	LGGGA	OLBAA		
EG	LGGGA	OLBAA		
EH	LGGGA	OLBAA		
EI	LGGGA	OLBAA		
EK	LGGGA	OLBAA		
EL	LGGGA	OLBAA		
EN	LGGGA	OLBAA		
EP	LGGGA	OLBAA		
ES	LGGGA	OLBAA		
ET	LGGGA	OLBAA		
EV	LGGGA	OLBAA		
EY	LGGGA	OLBAA		
F*	HK	OEJNA		
FH	LGGGA	OLBAA		
FJ	LGGGA	OLBAA		
G	DT	LGGGA		
H*	HK	OEJNA		
HA	OEJNA	HK		
HC	HK	OEJNA		
HD	OEJNA	HK		
HE	N	N		
HH	HHAS	HK		
HL	HL	DT		
HS	HS	OEJNA		
K	LGGGA	OLBAA		

Desti-nation	Actual Main	Actual Altn.	Planned Main	Planned Altn.
L*	LGGGA	OLBAA		
LA	LGGGA	OLBAA		
LI	LGGGA	OLBAA		
LL	LL	LGGGA		
LM	LGGGA	OLBAA		
M	LGGGA	OLBAA		
N	OEJNA	OLBAA		
OA	OLBAA	LGGGA	OBBIA	
OB	OEJNA	OLBAA	OBBIA	
OE	OEJNA	LGGGA		
OJ	OJ	OE		
OI	OLBAA	LGGGA	OBBIA	
OK	OLBAA	LGGGA		
OL	OLBAA	LGGGA		
OM	OLBAA	LGGGA		
OO	OEJNA	LGGGA		
OP	OLBAA	LGGGA		
OR				
OS	OS	OJ		
OT	OLBAA	LGGGA	OBBIA	
OY	OE	LGGGA		
P	OLBAA	LGGGA		
R	OEJNA	LGGGA	OBBIA	
S	LGGGA	OLBAA		
T	LGGGA	OLBAA		
U	LGGGA	OLBAA		
V	OLBAA	LGGGA	OBBIA	
W	OEJNA	LGGGA	OBBIA	
Y	OEJNA	LGGGA	OBBIA	
Z	OLBAA	LGGGA	OBBIA	

HECA - Cairo - Egypt

CIDIN Routing Table

CIDIN Exit Address	Actual Main VCG	Actual Altn. VCG	Planned Main VCG	Planned Altn. VCG
HECA_				
LGGG_	LGGG	OLBA		
OLBA_	OLBA	LGGG		
OEJN	OEJN	LGGG		

CIDIN Exit Address	Actual Main VCG	Actual Altn. VCG	Planned Main VCG	Planned Altn. VCG

CIDIN Virtual Circuit Group

Actual VCG	Actual Prim.VC	Actual Secondary VC's		
LGGG	LGGG1			
OLBA	OLBA1			
OEJN	OEJN1			

Planned VCG	Planned Prim.VC	Planned Secondary VC's		

HECA - Cairo - Egypt

Circuit Characteristics

Situation recorded in October 2011			Planned		
Link	Protocol	Capacity (bps)	Protocol	Capacity (bps)	"O" date
DTTC	AFTN	1 x 64/9.6 kbps			
HKNA	AFTN	1 x 9.6 K			
HLLT	AFTN	1 x 9.6 K			
HSSS	AFTN	1 x 9.6 K			
LGGG	CIDIN	1 x 64/9.6 kbps			
LLBG	AFTN	1 x 64/9.6 kbps			
OEJD	AMHS/CIDIN	1 x 128/9.6 kbps			
OJAM	AFTN	1 x 64/9.6 kbps			
OLBA	CIDIN	1 x 9.6 K			
OSDI	AFTN	1 x 64/9.6 kbps			
HHAS	AFTN	1 x 9.6 K			

OIII - Tehran - Iran

Information

Operator:	
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- -	
Fax:	0098 21-6025101
Telex:	213889 EPD IR
Email:	
AFTN:	OIIIYFYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	THRXTYF

Technical operator:	
Phone:	0098 21-91022330
- -	
Fax:	0098 21-6025101
Telex:	213889 EPD IR
Email:	
AFTN:	OIIIYTYC
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	THRXTYF

Supervisor:	
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CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	THRXTYF

Technical supervisor:	
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Phone:	0098 21-6036645
Fax:	0098 21-6025101
Telex:	213889 EPD IR
Email:	AFTN@IRAFTN.COM
AFTN:	OIIIYTYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	THRXTYF

Management:	
Name:	Gholamali Barzegari Naeini
Phone:	0098 21-6036645
Fax:	0098 21-6025101
Telex:	213889 EPD IR
Email:	AFTN@ARAFTN.COM
AFTN:	OIIIYTYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	THRXTYF

Postal Address:
Civil Aviation Organization
P.O. Box 1798, 13445
Mehrabad Intl Airport
Tehran
Islamic Republic of Iran

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	
AFTN OPM/NM:	
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN		
CIDIN/OPMET		
AIS		
MOTNE		
OPMET	Yes	
SITA	Yes	

OIII - Tehran - Iran

AFTN Routing Table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	OB	OP	OB	OP
B	LT	OB	LT	OB
C	LT	OB	LT	OB
D	OK	OB	OB	OK
E	LT	OB	LT	OB
F	OK	OB	OB	OK
G	OK	OB	OB	OK
H	OK	OB	OB	OK
K	LT	OB	LT	OB
L	LT	OB	LT	OB
LC	OB	OM	OB	OK
M	LT	OB	LT	OB
N	OB	OP	OB	OP

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
OA	OK	OP	OP	OK
OB	OB	OM	OB	OM
OE	OB	OM	OB	OM
OI	N	N	N	N
OJ	OS	OB	OS	OB
OK	OK	OB	OK	OB
OL	OB	OK	OB	OK
OM	OM	OB	OM	OB
OO	OB	OP	OB	OK
OP	OP	OK	OP	OK
OR	OK	OB	OK	OB
OS	OS	OB	OS	OK
OT	OB	OK	OB	OK
OY	OB	OM	OB	OK
P	OK	OB	OK	OB
R	OB	OK	OB	OK
S	LT	OB	LT	OB
T	LT	OB	LT	OB
U	LT	OB	OB	OK
V	OK	OB	OP	OK
VA	OK	OB	OP	OK
VI	OK	OB	OP	OK
VN	OK	OB	OP	OK
VO	OK	OB	OP	OK
W	OB	OP	OB	OP
Y	OB	OP	OB	OP
Z	OK	OB	OP	OK

OIII - Tehran - Iran

Circuit Characteristics

Situation recorded in October 2011			Planned		
Link	**Protocol**	**Capacity (bps)**	**Protocol**	**Capacity (bps)**	**"O" date**
LTAA	AFTN	1 x 9.6			
OBBI	AFTN	1 x 300	AFTN	9.6K	2012
OKBK	AFTN	1 x 100	AFTN	9.6K	2012
OMAE	AFTN	1 x 100			
OPKC	AFTN	1 x 200			
OSDI	AFTN	1 x 50			

ORBI - Bagdad - Iraq

Information

Operator: Ali Hussain Naser	
Phone:	+ 964 7901380661
- -	
Fax:	
Telex:	
Email:	
AFTN:	ORBIYFYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Technical operator: Basema Jaleel	
Phone:	+ 9641 8132480
- -	
Fax:	
Telex:	
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CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Supervisor:	
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CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Technical supervisor:	
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AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Management:	
Name:	
Phone:	
Fax:	
Telex:	
Email:	
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Postal Address:

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	Yes
AFTN OPM/NM:	
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN		
CIDIN/OPMET		
AIS		
MOTNE		
OPMET		
SITA		

ORBI - Bagdad - Iraq

AFTN Routing Table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	OK			OI
B	OK			OI
C	OK			OI
D	OK			OI
E	OK			OI
F	OK			OI
G	OK			OI
H	OK			OI
K	OK			OI
L*	OK			OI
LL				
M	OK			OI
N	OK			OI

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
OA	OK			OI
OB	OK			OI
OE	OK			OI
OI	OK			OI
OJ	OK			OI
OK	OK			OI
OL	OK			OI
OM	OK			OI
OO	OK			OI
OP	OK			OI
OR	OK			OI
OS	OK			OI
OT	OK			OI
OY	OK			OI
P	OK			OI
R	OK			OI
S	OK			OI
T	OK			OI
U	OK			OI
V	OK			OI
W	OK			OI
Y	OK			OI
Z	OK			OI

ORBI - Bagdad - Iraq

Circuit Characteristics

Situation recorded in October 2011			Planned		
Link	**Protocol**	**Capacity (bps)**	**Protocol**	**Capacity (bps)**	**"O" date**
OKBK	AFTN	64k / 9.6K			
OJAM	AFTN	1 X 50	AMHS	64K	3 QTR 2012
OLBA	AFTN	1 X 9.6K			
OSDI	AFTN	1 X 50			

OJAM - Amman - Jordan

Information

Operator:	Mona al - Nadaf
Phone:	+9626 4891401/3261
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Telex:	
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AFTN:	OJAMYFYX
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CIDIN/OPMET:	
SITA:	AMMXYYA

Technical operato	Targrred Ghazi
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- -	
Fax:	
Telex:	
Email:	
AFTN:	OJAMYFYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Supervisc	Marwan A. Qadome
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CIDIN/OPMET:	
SITA:	AMMXYYA

Technical supervi	Marwan Badawi
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AFTN:	OJAMYFYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Management:	Nader A. Kaled
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Email:	aftn_am@yahoo.com
AFTN:	OJAMYTYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Postal Address:
Civil Aviation Authority
P.O.Box 7547
Amman -Jordan

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	Yes
AFTN OPM/NM:	
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN		
CIDIN/OPMET		
AIS		
MOTNE		
OPMET		
SITA		

OJAM - Amman - Jordan

AFTN Routing Table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	OE	HE		
B	OS	HE		
C	OS	HE		
D	HE	OS		
E	OS	HE		
F	HE	OS		
G	HE	OS		
H*	HE	OL		
HE	HE	OS		
HL	HE	OS		
HS	HE	OE		
K	OS	HE		
L*	OS	HE		
LC	OS	HE		
LL	HE	HE		
LT	OS	HE		
M	OS	HE		
N	OE	HE		

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
OA	OE	HE		
OB	OE	HE		
OE	OE	HE		
OI	OS	OE		
OJ	N	N		
OK	OE	HE		
OL	HE	OS		
OM	OE	HE		
OO	OE	HE		
OP	OE	HE		
OR	OR	OS		
OS	OS	HE		
OT	OE	HE		
OY	OE	HE		
P	OS	HE		
R	OE	HE		
S	OS	HE		
T	OS	HE		
U	OS	HE		
V*	OE	HE		
VA	OE	HE		
VE	OE	HE		
VI	OE	HE		
VN	OE	HE		
VO	OE	HE		
W	OE	HE		
Y	OE	HE		
Z	HE	OS		

OJAM - Amman - Jordan

Circuit Characteristics

Situation recorded in October 2011			Planned		
Link	**Protocol**	**Capacity (bps)**	**Protocol**	**Capacity (bps)**	**"O" date**
HECA	AMHS	1 x 64 K			
OEJD	AMHS	1 x 64 K			
ORBI	AFTN	1 x 50	AMHS	9600	2012
OSDI	AFTN	1 x 19.2 K			
LLBG	AFTN	1 X 19.2K	AMHS	64	2012
OMAE	AMHS	2 MB (VPN)			
LCCC	AFTN	1 x 64 K	AMHS		2012

CCT OJAM TO OMAE IS USING VPN LINK OVER THE PUBLIC INTERNET

OKBK - Kuwait - Kuwait

Information

Operator:	
Phone:	
- -	
Fax:	
Telex:	
Email:	
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Technical operator:	
Phone:	
- -	
Fax:	
Telex:	
Email:	
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Supervisor:	
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AFTN:	OKBKYFYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Technical supervisor:	
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CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Management:	
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Fax:	+ (965) 431 9232
Telex:	
Email:	ned@kuwait.-airport.com.kw
AFTN:	OKBKYFYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Postal Address:

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	
AFTN OPM/NM:	
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN		
CIDIN/OPMET		
AIS		
MOTNE		
OPMET		
SITA		

OKBK - Kuwait - Kuwait

AFTN Routing Table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	OP	OB		
B	LI	OL		
C	LI	OL		
D	OL	OB		
E	LI	OL		
F	OB	OL		
G	OL	OB		
H*	OL	OB		
HE	OL	OB		
HL	OL	OB		
HS	OL	OB		
K	LI	OL		
L*	LI	OL		
LC	OL	LI		
LL				
LT	LI	OL		
M	LI	OL		
N	OP	OB		

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
OA	OP	OB		
OB	OB	OL		
OE	OB	OL		
OI	OI	OB		
OJ	OL	OB		
OK	N	N		
OL	OL	OB		
OM	OB	OL		
OO	OB	OL		
OP	OP	OB		
OR	OR	TBD		
OS	OS	OL		
OT	OT	OB		
OY	OB	OL		
P	LI	OL		
R	OP	OB		
S	LI	OL		
T	LI	OL		
U	LI	OL		
V*	OP	OB		
VA	OP	OB		
VE	OP	OB		
VI	OP	OB		
VN	OP	OB		
VO	OP	OB		
W	OP	OB		
Y	OP	OB		
Z	OP	OB		

OKBK - Kuwait - Kuwait

Circuit Characteristics

Situation recorded in October 2011			Planned		
Link	**Protocol**	**Capacity (bps)**	**Protocol**	**Capacity (bps)**	**"O" date**
LIII	AFTN	1 x 100	X.25	1 X 64k	3 QTR 2012
OBBI	AFTN	1 X 9.6 K			
OIII	AFTN	1 x 100	AFTN	1 X 9.6K	3 QTR 2012
OLBA	AFTN	1 x 100	AFTN	1 X 9.6K	TBD
OPKC	AFTN	1 x 2.4k	AFTN	1 X 9.6K	TBD
OSDI	AFTN	1 x 50			
OTBD	AFTN	1 x 64 K			
ORBI	AFTN	1 X 64 K			

OLBA - Beirut - Lebanon

Information

Operator:	
Phone:	+ 961 1 628161
- -	
Fax:	+961 1 629035
Telex:	
Email:	hatemh@beirutairport.gov.lb
AFTN:	OLBAYFYX
CIDIN/AFTN:	OLBAM
CIDIN/OPMET:	OLBAYMYX
SITA:	

Technical operator:	
Phone:	
- -	
Fax:	
Telex:	
Email:	
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Supervisor:	
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Telex:	
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AFTN:	OLBAYFYX
CIDIN/AFTN:	OLBAM
CIDIN/OPMET:	OLBAYMYX
SITA:	

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AFTN: OLBAYTYX	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Management:	
Name:	Chawki Hatem
Phone:	+961 1 628150
Fax:	+961 1 629035
Telex:	
Email:	
AFTN:	OLBAYTYX
CIDIN/AFTN:	OLBAM
CIDIN/OPMET:	OLBAYMYX
SITA:	

Postal Address:
Beirut International Airport
Telecom Department
Beirut-Lebanon

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	OLBAA
AFTN OPM/NM:	OLBAM
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN	Yes	
CIDIN/OPMET		
AIS	Yes	
MOTNE		
OPMET	Yes	
SITA	Yes	

OLBA - Beirut - Lebanon

AFTN Routing Table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	OBBIA	OE		
B	LCNCA	HECAA		
C	LCNCA	HECAA		
D	HECAA	LCNCA		
E	LCNCA	HECAA		
F	OE	HECAA		
G	HECAA	OE		
H	HECAA	OE		
K	LCNCA	HECAA		
L*	LCNCA	HECAA		
LL				
LT	LCNCA	HECAA		
M	LCNCA	HECAA		
N	OK	OE		

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
OA	OK	OE		
OB	OBBIA	OE		
OE	OE	OBBIA		
OI	OBBIA	OK		
OJ	HECAA	OE		
OK	OK	OBBIA		
OL	N	N		
OM	OBBIA	OE		
OO	OBBIA	OE		
OP	OK	OBBIA		
OR	OR	OS		
OS	OS	HECAA		
OT	OBBIA	OK		
OY	OE	OBBIA		
P	LCNCA	HECAA		
R	OBBIA	OE		
S	LCNCA	HECAA		
T	LCNCA	HECAA		
U	LCNCA	HECAA		
V*	OK	OBBIA		
VA	OK	OBBIA		
VE	OK	OBBIA		
VI	OK	OBBIA		
VN	OK	OBBIA		
VO	OK	OBBIA		
W	OBBIA	OK		
Y	OBBIA	OE		
Z	OK	OE		

OLBA - Beirut - Lebanon

Circuit Characteristics

Situation recorded in October 2011			Planned		
Link	**Protocol**	**Capacity (bps)**	**Protocol**	**Capacity (bps)**	**"O" date**
HECA	CIDIN	1 x 9.6 K			
LCNC	CIDIN	1 x 9.6 K			
OBBI	CIDIN	1 x 9.6 K			
OEJD	AFTN	1 x 19.2 K			
OKBK	AFTN	1 x 100	AFTN	1 x 9.6K	3 QTR 2012
OSDI	AFTN	2 x 50			
ORBI	AFTN	1 x 9.6 K			

OLBA - Beirut - Lebanon

CIDIN Routing Table

CIDIN Exit Address	Actual Main VCG	Actual Altn. VCG	Planned Main VCG	Planned Altn. VCG
OLBA_	OLBA	(LCNC)		
LCNC_	OLBA	(OBBI)		
OBBI_	OLBA	HECA		

CIDIN Exit Address	Actual Main VCG	Actual Altn. VCG	Planned Main VCG	Planned Altn. VCG

CIDIN Virtual Circuit Group

Actual VCG	Actual Prim.VC	Actual Secondary VC's		
HECA	HECA1			
LCNC	LCNC1			
OBBI	OBBI1			

Planned VCG	Planned Prim.VC	Planned Secondary VC's		

OOMS - Muscat - Oman

Information

Operator:	Mushal Abdul Aziz
Phone:	968 519209/332
- -	
Fax:	968 510617
Telex:	5418 DGCAOMAN ON
Email:	aircomms@dgcam.gov.om
AFTN:	OOMSYFYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Technical operato	Abdullah Salim Al-Shuaili
Phone:	968 519492
- -	
Fax:	968 510617
Telex:	5418 DGCAOMAN ON
Email:	sohar99@gmail.com
AFTN:	OOMSYTYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Supervisor:	
Name:	Akhtar Kareem Al-Balu
Phone:	968 519260
Fax:	968 510617
Telex:	5418 DGCAOMAN ON
Email:	aircomms@dgcam.gov.om
AFTN:	OOMSYTYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Technical supervisor:	
Name:	Ahmed Hamood Al-Alawi
Phone:	968 519492
Fax:	968 510617
Telex:	5418 DGCAOMAN ON
Email:	mss@dgcam.gov.om
AFTN:	OOMSYTYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Management:	
Name:	Ahmed Issa Al-Zadjali
Phone:	+968-24519123
Fax:	968 519930
Telex:	5418 DGCAOMAN ON
Email:	ahmedissa@dgcam.gov.om
AFTN:	OOMSYTYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Postal Address:
P.O. BOX 1
Postal Code 111
Seeb Int. Airport
Sultanate of Oman

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	
AFTN OPM/NM:	
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN		
CIDIN/OPMET		
AIS	Yes	
MOTNE		
OPMET		
SITA		

OOMS - Muscat - Oman

AFTN Routing Table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	OB	VA		
B	OB	OE		
C	OB	OE		
D	OE	OB		
E	OB	OE		
F	OE	VA		
G	OE	OB		
H	OE	VA		
K	OB	OE		
L* EX. LL	OB	OE		
M	OB	OE		
N	OB	VA		
OA	OB	OMA		
OB	OB	OMA		
OE	OE	OB		
0I	OB	OMA		
OJ	OE	OB		
OK	OB	OE		
OL	OB	OE		
OM	OMA	OB		
OO	N	N		
OP	VA	OB		
OR	OB	OE		
OS	OE	OB		
OT	OB	OMA		
OY	OY	OE		
P	OB	VA		
R	OB	VA		
S	OB	OE		
T	OB	OE		
U	VA	OE		
V*	OB	VA		
VA	VA	OB		
VE	VA	OB		
VI	VA	OB		
VN	VA	OB		
VO	VA	OB		
W	OB	VA		
Y	OB	VA		
Z	VA	OB		

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.

OOMS - Muscat - Oman

Circuit Characteristics

Situation recorded in May 2010				Planned		
Link		**Protocol**	**Capacity (bps)**	**Protocol**	**Capacity (bps)**	**"O" date**
OBBI		AFTN	1 x 9600	AMHS		3 QTR 2012
OEJD		AFTN	1 x 9600	AMHS		3 QTR 2012
OMAE		AMHS	1 x 64 K			
OYSN		AFTN	1 x 100		9.6k	3 QTR 2012
VABB		AFTN	1 x 9600			

OPKC - Karachi - Pakistan

Information

Operator:	
Phone:	92-21-45791943
- -	45797232
Fax:	92-21-9218216
Telex:	29336 CAA PK
Email:	
AFTN:	OPKCYFYX
CIDIN/AFTN:	
CIDIN/OPMET:	OPKCYZYX
SITA:	

Technical operator:	
Phone:	92-21-45791944
- -	45797519
Fax:	
Telex:	29336 CAA PK
Email:	
AFTN:	OPKCYFYT
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Supervisor:	
Name:	Mr. Fasihuzzaman
Phone:	92-21-9218242
Fax:	92-21-9218216
Telex:	29336 CAA PK
Email:	
AFTN:	OPKCYTYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Technical supervisor:	
Name:	Mr. Nadeem Sharif Pasha
Phone:	92-21-9218174
Fax:	
Telex:	29336 CAA PK
Email:	Ctoqiap@sat.net.pk
AFTN:	OPKCYTYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Management:	
Name:	Air Cdre Qamaruddin
Phone:	92-21-9218732
Fax:	92-21-9218733
Telex:	29534 DG CAA PK
Email:	q-uddin@yahoo.Com
AFTN:	OPHQZXCM
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Postal Address:
Comm-Ops branch, HQ.CAA
Technical Devision
Terminal-1
QIAP, Karachi-75200
Pakistan

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	
AFTN OPM/NM:	
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN		
CIDIN/OPMET		
AIS	Yes	
MOTNE		
OPMET	Yes	
SITA		

OPKC - Karachi - Pakistan

AFTN Routing Table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	VA	-		
B	OK	-		
C	OK	OI		
D	OK	-		
E	OK	OI		
F	OK	-		
G	OK	-		
H	OK	-		
K	OK	OI		
L*	OK	0I		
LL				
LT	OI	OK		
M	OK	OI		
N	VA	OI		

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
OA	OA	-		
OB	OK	OI		
OE	OK	-		
OI	OI	-		
OJ	OK	OI		
OK	OK	-		
OL	OK	-		
OM	OK	OI		
OO	OK	OI		
OP	N	N		
OR	OK	-		
OS	OI	-		
OT	OK	OI		
OY	OK	OI		
P	VA	-		
R	VA	-		
S	OK	OI		
T	OK	OI		
U	OI	OK		
V*	VA	-		
VN	ZB	VA		
W	VA	-		
Y	VA	-		
Z	ZB	VA		

OPKC - Karachi - Pakistan

Circuit Characteristics

Situation recorded in October 2004			Planned		
Link	**Protocol**	**Capacity (bps)**	**Protocol**	**Capacity (bps)**	**"O" date**
OIII	AFTN	1 x 200	AFTN	2.4K	End 2004
OKBK	AFTN	2.4K			
ZBBB	AFTN	1 x 50	AFTN	2.4K	End 2004
VABB	AFTN	1 x 200			
OAKB	AFTN (VSAT)	1 x 2400			

OTBD - Doha - Qatar

Information

Operator:	
Phone:	00974 4656220/268
- -	00974 4622510
Fax:	00974 4621052
Telex:	
Email:	
AFTN:	OTBDYFYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	DOHXYYF

Technical operator:	
Phone:	
- -	
Fax:	
Telex:	
Email:	
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Supervisor:	
Name:	Mr. Ahmed Al-Mannai
Phone:	00974 4622510
Fax:	00974 4622052
Telex:	
Email:	ahmedalmannai@caa.gov.qa
AFTN:	
CIDIN/AFTN:	OTBDYTYX
CIDIN/OPMET:	
SITA:	DOHXYYF

Technical supervisor:	
Name:	Mr.Said Othman Baywazir
Phone:	00974 465500
Fax:	00974 4622620
Telex:	
Email:	saeed@caa.gov.qa
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Management:	
Name:	
Phone:	
Fax:	
Telex:	
Email:	
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Postal Address:
Civil Aviation Authority
P.O.Box 3000
Doha Qatar

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	
AFTN OPM/NM:	
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN		
CIDIN/OPMET		
AIS		
MOTNE		
OPMET		
SITA		

OTBD - Doha - Qatar

AFTN Routing Table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	OB	OK		
B	OB	OK		
C	OB	OK		
D	OB	OK		
E	OB	OK		
F	OB	OK		
G	OB	OK		
H	OB	OK		
K	OB	OK		
L*	OB	OK		
LL				
M	OB	OK		
N	OB	OK		

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
OA	OB	OK		
OB	OB	OK		
OE	OB	OK		
OI	OK	OB		
OJ	OB	OK		
OK	OB	OK		
OL	OB	OK		
OM	OB	OK		
OO	OB	OK		
OP	OK	OB		
OR	OK	OB		
OS	OB	OK		
OT	N	N		
OY	OB	OK		
P	OB	OK		
R	OB	OK		
S	OB	OK		
T	OB	OK		
U	OB	OK		
V	OB	OK		
W	OB	OK		
Y	OB	OK		
Z	OB	OK		

OTBD - Doha - Qatar

Circuit Characteristics

Situation recorded in October 2011		
Link	**Protocol**	**Capacity (bps)**
OBBI	AFTN/CIDIN	1 x 64 K
OKBK	AFTN	1 x 64 K
OMAE	AMHS	1 x 64 K

Planned		
Protocol	**Capacity (bps)**	**"O" date**
AMHS	1 x 64 K	3 QTR 2012

OEJD - Jeddah - Saudi Arabia

Information

Operator:	
Phone:	+966 2 685 0532
- -	+966 2 685 4576
Fax:	+966 2 685 4016
Telex:	603807 KAIAP
Email:	
AFTN:	OEJNYFYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Technical operator:	
Phone:	+966 2 685 5040 or
- -	+966 2 685 5039
Fax:	+966 2 685 5718
Telex:	
Email:	
AFTN:	OEJNYFYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Supervisor:	
Name:	Fahad Alsubhi(Manager)
Phone:	+966 2 685 5611
Fax:	+966 2 685 4014
Telex:	603807 KAIAP
Email:	fahadms@gmail.com
AFTN:	OEJNYFYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Technical supervisor:	
Name:	Waheed Moktar
Phone:	+966 2 6717717
Fax:	+966 2 6719041
Telex:	
Email:	wmokhtar@gaca.gov.sa
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Management:	
Name:	Abdulkareem Alharbi
Phone:	+966 2 6717717 ext: 1835
Fax:	+966 2 6717717 ext: 1839
Telex:	601093 CIVAIR SJ
Email:	harbi_abd@yahoo.com
AFTN:	OEJDYTYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Postal Address:
Manager
ATM Comm. Ops and Procedures
General Authority of Civil Aviation (GACA)
P.O. Box 15441
JEDDAH 21444
SAUDI ARABIA

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	OEJNA
AFTN OPM/NM:	OEJNM
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN	Yes	
CIDIN/OPMET	No	
AIS	No	
MOTNE	No	
OPMET	No	
SITA	No	

OEJD - Jeddah - Saudi Arabia

AFTN Routing Table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	OBBIA	OO		
B	LCNCA	OBBIA		
C	LCNCA	OBBIA		
D	HECAA	LCNCA		
E	LCNCA	OBBIA		
F	HA	HECAA		
G	HECAA	LCNCA		
H*	HA	HECAA		
HECAA	HECAA	LCNCA		
HL	HECAA	LCNCA		
HS	HS	HECAA		
K	LCNCA	OBBIA		
L*	HECAA	LCNCA		
LCNCA	LCNCA	OBBIA		
LK	LCNCA	OBBIA		
LL				
LT	OBBIA	OO		
M	HECAA	LCNCA		
N	OBBIA	OO		

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
OA	OBBIA	OO		
OBBIA	OBBIA	OO		
OE	N	N		
OI	OBBIA	OO		
OJ	OJ	HECAA		
OK	OBBIA	OO		
OL	OL	HECAA		
OM	OBBIA	OO		
OO	OO	OBBIA		
OP	OO	OBBIA		
OR	OL	HECAA		
OS	OL	HECAA		
OT	OBBIA	OO		
OY	OYS	OO		
P	OBBIA	OO		
R	OBBIA	00		
S	HECAA	LCNCA		
T	HECAA	LCNCA		
U	LCNCA	OBBIA		
V*	OBBIA	OO		
VA	OO	OBBIA		
VE	OO	OBBIA		
VI	OO	OBBIA		
VN	OO	OBBIA		
VO	OO	OBBIA		
W	OBBIA	OO		
Y	OBBIA	OO		
Z	OO	OBBIA		

OEJD - Jeddah - Saudi Arabia

Circuit Characteristics

Situation recorded in October 2011			Planned		
Link	Protocol	Capacity (bps)	Protocol	Capacity (bps)	"O" date
HAAB	AFTN	1 x 9.6 K			
OJAM	AMHS	1 x 64 K			
OBBI	AFTN/CIDIN	1 x 64 K			
OLBA	AFTN	1 x 19.2 K			
HECA	AMHS	1 x 64 K			
HSSS	AFTN	1 x 9.6 K			
OOMS	AFTN	1 x 300			
LCNC	CIDIN	1 x 64 K			
OYSN	AFTN	1 x 9.6 K			

OEJD - Jeddah - Saudi Arabia

CIDIN Routing Table

CIDIN Exit Address	Actual Main VCG	Actual Altn. VCG	Planned Main VCG	Planned Altn. VCG
HECA_	HECA			
LCNC_	LCNC	OBBI		
OBBI_	OBBI	LCNC		

CIDIN Exit Address	Actual Main VCG	Actual Altn. VCG	Planned Main VCG	Planned Altn. VCG

CIDIN Virtual Circuit Group

Actual VCG	Actual Prim.VC	Actual Secondary VC's		
HECA	HECA1			
LCNC	LCNC1			
OBBI	OBBI1			

Planned VCG	Planned Prim.VC	Planned Secondary VC's		

OSDI - Damascus - Syria

Information

Operator:	
Phone:	011-5400985-9/4165
- -	
Fax:	
Telex:	
Email:	dgca@net.sy
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Technical operator:	
Phone:	011-5400985-9/4106
- -	
Fax:	
Telex:	
Email:	
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Supervisor:	
Name:	Ayda Ashkar
Phone:	011-5400985-9/4164
Fax:	
Telex:	
Email:	Planned
AFTN:	OSDIYTYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Technical supervisor:	
Name:	Samir Abou Chameh
Phone:	011-5400985-9/4106
Fax:	011-5400571
Telex:	
Email:	
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Management:	
Name:	Eng. Arkan Zahr-din
Phone:	011-5400985-9/4160
Fax:	
Telex:	
Email:	dgca@net.sy
AFTN:	OSDIYTYX
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Postal Address:

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	
AFTN OPM/NM:	
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN		
CIDIN/OPMET		
AIS		
MOTNE		
OPMET		
SITA		

OSDI - Damascus - Syria

AFTN Routing Table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	OI	HE		
B	LG	HE		
C	LG	HE		
D	HE	LG		
E	LG	HE		
F	HE	LG		
G	HE	LG		
H	HE	LG		
K	LG	HE		
L*	LG	HE		
LL				
M	LG	HE		
N	HE	LG		

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
OA	OI	HE	OI	OH
OB	OI	OK		
OE	OJ	OK	OJ	HE
OI	OI	OK	OI	OK
OJ	OJ	HE		
OK	OK	OI		
OL	OL	HE		
OM	OI	OK		
OO	OI	OK		
OP	OI	OK		
OR	OR	OJ	OR	OJ
OS	N	N	N	N
OT	OI	OK	OI	OK
OY	OJ	HE		
P	LG	HE		
R	HE	LG	OK	OL
S	LG	HE		
T	LG	HE		
U	LG	HE		
V	OI	OK		
W	HE	OI	OK	OI
Y	OI	OK		
Z	HE	LG	OK	OI

OSDI - Damascus - Syria

Circuit Characteristics

Situation recorded in October 2011			Planned		
Link	**Protocol**	**Capacity (bps)**	**Protocol**	**Capacity (bps)**	**"O" date**
HECA	AFTN	1 x 50	AFTN	9.6 K	3 QTR 2012
LGGG	AFTN	2 x 50	AFTN	9.6 K	3 QTR 2012
OIII	AFTN	1 x 50	AFTN	9.6 K	3 QTR 2012
OJAM	AFTN	1 x 19.2 K			
OKBK	AFTN	1 x 50	AFTN	9.6 K	3 QTR 2012
OLBA	AFTN	2 x 50	AFTN	9.6 K	3 QTR 2012
ORBI	AFTN	1 x 50	AFTN	9.6 K	3 QTR 2012
SITA	AFTN	1 X 50			

OMAE - Abu Dhabi - U.A.E.

Information

Operator:	
Phone:	00971 2 599 6851
- -	
Fax:	00971 2 599 6852
Telex:	
Email:	aftncomms@szc.gcaa.ae
AFTN:	OMAEYFYX
CIDIN/AFTN:	OMAEM
CIDIN/OPMET:	
SITA:	

Technical operator:	
Phone:	00971 2 599 6864
- -	
Fax:	00971 2 599 6872
Telex:	
Email:	engineering@szc.gcaa.ae
AFTN:	OMAECENG
CIDIN/AFTN:	OMAEM
CIDIN/OPMET:	
SITA:	

Supervisor:	
Name:	V. Koshy
Phone:	00971 2 599 6844
Fax:	00971 2 599 6852
Telex:	
Email:	vkoshy@szc.gcaa.ae
AFTN:	OMAEYFYX
CIDIN/AFTN:	OMAEM
CIDIN/OPMET:	
SITA:	

Technical supervisor:	
Name:	Jack Watson
Phone:	00971 2 599 6860
Fax:	00971 2 599 6872
Telex:	
Email:	jwatson@szc.gcaa.ae
AFTN:	OMAECENG
CIDIN/AFTN:	OMAEM
CIDIN/OPMET:	
SITA:	

Management:	
Name:	Abdullah Al Hashimi
Phone:	00971 2 599 6830
Fax:	00971 2 599 6836
Telex:	
Email:	ahashimi@szc.gcaa.ae
AFTN:	OMAEYTSC
CIDIN/AFTN:	OMAEM
CIDIN/OPMET:	
SITA:	

Postal Address:
GCAA
P.O. Box 666
Abu Dhabi
United Arab Emirates

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	OMAEA
AFTN OPM/NM:	OMAEYPYX
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN	Yes	
CIDIN/OPMET		
AIS		
MOTNE		
OPMET		
SITA		

OMAE - Abu Dhabi - U.A.E.

AFTN Routing Table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	OBBIA	OO		
B	OBBIA	OO		
C	OBBIA	OO		
D	OBBIA	OO		
E	OBBIA	OO		
F	OBBIA	OO		
G	OBBIA	OO		
H	OBBIA	OO		
K	OBBIA	OO		
L*	OBBIA	OO		
LL				
LT	OBBIA	OO		
M	OBBIA	OO		
N	OBBIA	OO		

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
OA	OBBIA	OO		
OB	OBBIA	OO		
OE	OBBIA	OO		
OI	OI	OBBIA		
OJ	OJ	OBBIA		
OK	OBBIA	OI		
OL	OBBIA	OO		
OM	N	N		
OO	OO	OBBIA		
OP	OO	OBBIA		
OR	OBBIA	OI		
OS	OBBIA	OI		
OT	OT	OBBIA		
OY	OBBIA	OO		
P	OBBIA	OO		
R	OBBIA	OO		
S	OBBIA	OO		
T	OBBIA	OO		
U	OBBIA	OO		
V*	OBBIA	OO		
VA	OO	OBBIA		
VE	OO	OBBIA		
VI	OO	OBBIA		
VN	OO	OBBIA		
VO	OO	OBBIA		
W	OBBIA	OO		
Y	OBBIA	OO		
Z	OO	OBBIA		

OMAE - Abu Dhabi - U.A.E.

Circuit Characteristics

Situation recorded in October 2011			Planned		
Link	**Protocol**	**Capacity (bps)**	**Protocol**	**Capacity (bps)**	**"O" date**
OBBI	CIDIN	1 x 9.6K	AMHS	64K	3 QTR 2012
OIII	AFTN	1 x 100		64K	3 QTR 2012
OOMS	AMHS	1 X 64K			
OJAM	AMHS	1 X (VPN 2 MB)			
OTBD	AMHS	1 X 64K			

CCT OJAM TO OMAE IS USING VPN LINK OVER THE PUBLIC INTERNET

OYSN - Sanaa - Yemen

Information

Operator:	
Phone:	00967-1-345289-326
- -	
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Email:	ans1san@y.net.ye
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Technical operator:	
Phone:	
- -	
Fax:	
Telex:	
Email:	
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Supervisor:	
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CIDIN/OPMET:	
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CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Management:	
Name:	
Phone:	
Fax:	
Telex:	
Email:	
AFTN:	
CIDIN/AFTN:	
CIDIN/OPMET:	
SITA:	

Postal Address:
AIR TRAFFIC SERVICES
P.O.BOX 3437
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REPUBLIC OF YEMEN

CIDIN Entry/Exit Addresses:	
AFTN Ae/Ax:	
AFTN OPM/NM:	
OPMET Ae/Ax:	
OPMET OPM/NM:	

Other:	

Functions:		
Conv. AFTN	Yes	
CIDIN/AFTN		
CIDIN/OPMET		
AIS		
MOTNE		
OPMET		
SITA		

OYSN - Sanaa - Yemen

AFTN Routing Table

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
A	OO	OE		
B	OO	OE		
C	OO	OE		
D	OO	OE		
E	OO	OE		
F	OE	OO		
G	OE	OO		
H	OE	OO		
K	OO	OE		
L*	OO	OE		
LL				
M	OO	OE		
N	OO	OE		

Destination	Actual Main	Actual Altn.	Planned Main	Planned Altn.
OA	OO	OE	same	same
OB	OO	OE		
OE	OE	OO		
OI	OO	OE		
OJ	OO	OE		
OK	OO	OE		
OL	OE	OO		
OM	OO	OE		
OO	OO	OE		
OP	OO	OE		
OR	OO	OE		
OS	OO	OE		
OT	OO	OE		
OY	N	N		
P	OO	OE		
R	OO	OE		
S	OO	OE		
T	OO	OE		
U	OO	OE		
V	OO	OE		
W	OO	OE		
Y	OO	OE		
Z	OO	OE		

OYSN - Sanaa - Yemen

Circuit Characteristics

Situation recorded in October 2011			Planned		
Link	Protocol	Capacity (bps)	Protocol	Capacity (bps)	"O" date
OEJD	AFTN	1 x 9.6 K			
OOMS	AFTN	1 x 100		64 K	3 QTR 2012

End of Table

CNS SG/5
Appendix 3F to the Report on Agenda Item 3

TASK LIST

No	Description	Deliverables	Target date	Responsibility
1	Review of implementation problems and develop coordinated solutions Coordinate/compile the regional implementation schedule	Updated the information in the ATN Router and AMHS planning tables and the implementation status maintain the AMHS Implementation Plan	Quarterly	Members Bahman (Iran), Saud (Kuwait) Khaled (Egypt)
2	Monitor ATN Implementation	Status of impl.	ATN-IPS WG/5	ATN-IPS WG
~~3~~	~~Development of Interim~~ ~~Database for routing tables~~	~~Database~~	~~AIRAC~~	~~Mona (Jordan)~~
4	MID - AMC	Complete the development	March 2013	ATN-IPS Jordan
	Support MID-AMC team	Progress report	March 2013	
5	MID ATN AMHS will adopt IPv4 address assignment proposed by as an interim measure and will transit to IPv6 after the related implementation issues are resolved. This approach will be based on point-to-point IP network	Guidance Doc on IPv4 addressing plan to be developed	Ongoing progress report March 2013	Haitham (Egypt), Abdulla (Saudi Arabia), Mona (Jordan) and Yaseen (Bahrain)
6	facilitate implementation of VoIP in MID	Develop the required guidance	March 2013	Mohammed (Bahrain) All
7	develop a list of the documents which are need for MID-ATN Implementation	List of documents	ATN-IPS WG/5	All
8	IP Network Survey Analysis/requirement/financial/design	Survey doc	March 2013	Abdulla /Mona/ Yasser/Yassin
9	Proposal from PTT for IP network for the region, Coordination for presentation from suppliers	Proposal and presentation	ATN-IPS WG./5	Mohammed (Bahrain) Khaled Egypt Abdullah (Saudi Arabia)
11	Coninue development of MID AIDC implementation plan		ATN-IPS WG./5	States and ATN-IPS WG members

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REPORT ON AGENDA ITEM 4: DEVELOPMENT RELATED TO CNS

4.1 The meeting recalled that Frequency spectrum is a finite and limited resource, managed by the International Telecommunication Union, through its World Radiocommunication Conferences, held every three to four years. It was noted that the ITU World Radiocommunication Conference (2015) (WRC-15) is expected to convene in the fourth quarter of 2015.

4.2 The meeting further recalled that Aeronautical Communications Panel (ACP) is tasked to develop the draft ICAO Position for WRC-15. Working Group F (WG-F) of the panel undertook this task during two meetings, 21 to 30 March 2012 and 17 to 26 September 2012.

4.3 The meeting noted that the draft position has been finalized by ICAO Commission, sent to States and selected international Organization as attachment to State letter E 3/5-12/62 dated 28 November 2012 for further comments by February 2103. Comments by States will be considered by ACP-WG-F in preparation for final review by the Commission during its 193rd Session, and a subsequent approval by Council. The position, as approved by Council, will then be transmitted to States and appropriate international organizations through a State letter.

4.4 The meeting further noted that in addition to the development of the ICAO Position for WRC-15, ACP WG-F is also developing updates to the Policy statements against each frequency band, as contained in the *Handbook on Radio Frequency Spectrum Requirements for Civil Aviation including Statement of Approved ICAO Policies* (Doc 9718). Also, due to the ever increasing pressure on aviation frequency spectrum, ACP WG-F has now commenced the development of a Spectrum Strategy.

4.5 The meeting discussed the agenda items for WRC-15 that includes a number of items, mainly of a technical nature, with implications to aviation, as follows:

- Additional spectrum allocations to the Mobile Service (Agenda Item 1.1);
- Potential use of Fixed Satellite Service allocations to support the operation of unmanned aircraft systems in non-segregated airspace (Agenda Item 1.5);
- Review of the use of the band 5091 – 5150 MHz by the fixed satellite service (Agenda Item 1.7);
- Extension of the current worldwide allocation to the Earth exploration-satellite (active) service in the 9 GHz band (Agenda Item 1.12);
- Spectrum requirements and regulatory actions to support wireless avionics intra-communications (Agenda Item 1.17);
- Review of the footnotes to the table of frequency allocations (Agenda Item 8); and
- Technical and regulatory measures in the AFI Region to protect aeronautical VSAT networks (Agenda Item 9.1 sub-item 5).

4.6 The meeting noted the other issues that will be addressed at WRC-15 which are detailed in the ICAO position for WRC-15.

4.7 The meeting was apprised of the poor participation to WRC-12 by the MID States civil aviation experts. Even though this issue was discussed in many previous MIDANPIRG meetings and appropriate conclusions were adopted related to the support of ICAO position at WRCs and the ITU study group meetings to which the attendance of civil aviation experts is important. The meeting agreed that issue of supporting ICAO position to WRCs be presented to the MID-DGCA/2 meeting planned for April 2013, in order to gain the support at the highest possible level in the MID States.

4.8 The meeting urged MID States to provide constructive comments to the draft ICAO Position for WRC-15, and support ICAO position through their respective authorities also encouraged civil Aviation Frequency spectrum experts to actively participate in the preparatory work of the ITU, including the relevant meetings of the ITU-R, and the Arab Spectrum Management Group (ASMG) Meetings. Furthermore, the meeting supported the idea of organization ACP Working group-f meeting and regional frequency spectrum seminar in the MID region in order to gain understanding of the ICAO position for WRC-15. The meeting urged MID States listed in the footnotes affecting aviation spectrum to remove their names from these footnotes, to allow for interference free operation of aviation systems.

4.9 Based on the above, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 5/5: SUPPORT ICAO WRC-15 POSITION

That, in order to Support ICAO Position for WRC-15, States be urged to:

a) participate with their respective authorities in ITU Study groups CPM and WRC-15 meeting;

b) participate actively in Arab Spectrum Management Group; and

c) host ACP WG-F meeting and Regional Frequency spectrum seminar

4.10 The meeting reviewed the updates to the ICAO Handbook on radio frequency spectrum requirements for civil aviation (Doc. 9718) for both volumes and encouraged State to send their comments to ICAO on the whole of the Handbook for consideration in future revisions.

4.11 The meeting discussed the inter-regional coordination of frequency assignments and noted that ICAO Regional Offices are carrying the coordination. With regard to forming small group involving the EUR/NAT Office, Eurocontrol, the WACAF, ESAF and MID Offices, the meeting agreed States adjacent to EUR to assign a focal point in order to update the EUR frequency database.

4.12 The meeting was apprised on Frequency Finder program under development by ICAO, a tool that assists ICAO Regional Offices and States to manage and coordinate aeronautical frequency assignments. The meeting agreed that a workshop to be held for introducing the tool and update the ICAO global frequency database, when tool is ready for operation.

REPORT ON AGENDA ITEM 5: PERFORMANCE FRAMEWORK FOR CNS IMPLEMENTATION IN THE MID REGION

5.1 The meeting recalled that the aviation industry relies on Global Navigation Satellite System (GNSS) to find a location or to keep time. The Global Positioning System (GPS) set up by the USA Government and GLONASS a similar Russian system where both built for military purposes but are now available to anyone with device to receive that signal.

5.2 The meeting noted that there is a big worry in the aviation that havoc can be caused if GNSS signals were jammed. This is a real threat as this can be caused by very cheap, low power devices. Studies carryout in the UK for a period of 6 months in one location found 60 incidences of jamming and the trend is on increase. Some of the devices available now are of very high power in comparison to the satellite signal which has serious implications on the aviation industry.

5.3 Furthermore, the meeting noted that some jamming incidences have been shown to be caused by harmonics – where the frequencies used for GNSS have been a harmonic of frequencies used for ground-based aeronautical equipment or other equipment.

5.4 The meeting noted that sources of GNSS vulnerabilities could be unintentional interference, intentional interference, effects of the ionosphere, solar activity (space weather) and others. Furthermore, with the recent incidents of recurring interference to GNSS signal on board civil aircraft have emphasized the fact that GNSS interference can cause a hazard to aviation safety and even lead to accidents through the malfunctioning of GNSS receivers and the ground proximity warning system (GPWS). ICAO issued State Letter AN 13/4.5-12/50 dated 9 July 2012 urging all ICAO Member States to take action to ensure that sources of GPS interference signals are identified and mitigated to ensure that the integrity of international air navigation is maintained.

5.5 Based on the above, the meeting reemphasized that the frequency Interference-free operation of GNSS is essential, also recalled that the frequency band 1 559 - 1 610 MHz, is used for elements of GNSS, and the International Telecommunication Union (ITU) process, allows under footnotes No. 5.362B and 5.362C the operation of fixed service in some States on a secondary basis until 1 January 2015. The continued use by the fixed service constitutes a severe constraint on the safe and effective use of GNSS in some areas of the world, as distances of up to 400 km between the stations of the fixed service and the aircraft is required to ensure safe operation of GNSS.

5.6 The meeting noted MIDANPIRG/13 meeting urged these States to remove their names from the footnote and agreed to the following Conclusion: *CONCLUSION 13/44: PROTECTION OF GNSS SIGNAL*. As a follow-up to the Conclusion ICAO MID Regional Office sent State letter AN 6/28-12/217 dated 18 July 2012, requesting Civil Aviation Authorities to coordinate with the Telecommunication Regulatory Authority in their State, to remove their State name from the footnotes No. 5.362B and 5.362C.

5.7 However, the meeting noted that ICAO HQ SL E 3/5-12/62 dated 28 November 2012 and the attached WRC position the same States Names appear. Accordingly, the meeting urged concerned States to take the necessary action to remove their names from these footnotes.

5.8 The meeting noted the Strategy for the implementation of GNSS in the MID Region and the GNSS Survey for which ICAO MID Regional Office sent State Letter AN 6/28-12/216 dated 18 July 2012 and the following States replied (Bahrain, Jordan, Kuwait, Oman, Qatar and UAE). The meeting was apprised that PBN/GNSS TF/5 is planned to be held in Cairo 7-9 May 2013 will consolidate the replies and carry out the analysis. Accordingly the meeting urged States that did not reply to send the reply to the survey.

5.9 The meeting noted that AN-Conf/12 developed *Recommendation 6/5 – ICAO work programme to support global navigation satellite system evolution* and *Recommendation 6/6 – Use of multiple constellations* the meeting agreed that PBN/GNSS to initiate the follow-up on these recommendations.

5.10 The meeting noted MIDANPIRG/13 *Conclusion 13/47: MID Regional PBN Implementation Strategy and Plan* and requested that the PBN/GNSS TF to follow-up the PBN implementation in the region and inform CNS Sub Group if any support required. The meeting also noted that MIDANPIRG/13 agreed on the establishment of MID PBN Support Team in order to support MID States in the PBN implementation and act as Regional Go Team.

5.11 The meeting noted that MID States are installing mode S radars and the agreement with the MICA cell in EUROCONROL to provide the MICA web based application and the same support to the MID Region as done in the ICAO EUR Region. In this regard the meeting was apprised of MIDANPIRG/13 *CONCLUSION 13/4: MID REGION PROCESS FOR MODE S IC CODES ALLOCATION*. that defines the process of IC code allocation in the MID Region.

5.12 The meeting noted that a recent incident occurred where IC code conflict was observed, accordingly, the meeting emphasized, that when programming Mode S interrogators, Mode S operators have to comply with:

- the allocated IC provided in the latest issued IC allocation;
- the surveillance and lockout coverage provided in this issued IC allocation; and
- ensure that the Mode S interrogators are correctly programmed in order to avoid an IC conflict.

5.13 Based on the above, the meeting recommended that the Mode S Radar operators develop IC and coverage map programming procedures, taking their own specificities into account. As a minimum, local procedures have to include the following verification steps, to be completed for each interrogator parameter change:

a) Verification of the compliance of the programming parameters with the IC allocation data, including: Position of the radar; IC; Lockout range and coverage map, if applicable.

b) Verification of the validity status of the IC allocation used for programming.

c) Verification of all parameter sets (current, factory defaults…) that may be used by the radar.

d) When operating in a cluster, verification that all cluster states parameters are compliant with the IC allocation data.

e) Verification of the correct application of the programmed data, including following radar chain switch-over and switch-off/switch-on cycles.

5.14 The meeting reviewed the updated IC code allocation for the MID Region as at **Appendix 5A** to the Report on Agenda Item 5, which is extracted from the MICA web allocation, and it was noted that States can also obtain the list for their States provided that they access the MICA application by registering as users. Furthermore, it was noted that EURCONTROL experts could provide training for the MID Region on the application. The MICA application can be accessed at https://extranet.eurocontrol.int/http://prisme-oas.hq.corp.eurocontrol.int/mica/Index.action

5.15 The meeting noted that MIDANPIRG/13 reviewed the MID Region Surveillance strategy and timelines for the ADS-B out implementation as developed by the MID Surveillance workshop and the MID Region Strategy for the Implementation of ADS-B out, and agreed on *DECISION 13/42:MID REGION SURVEILLANCE STRATEGY* tasking the CNS SG to develop consolidated MID Surveillance Strategy.

5.16 Furthermore, the meeting noted that Bahrain exchange surveillance data with Kuwait, Qatar, and provide UAE surveillance data, also Qatar and UAE exchange surveillance data. Furthermore, MIDANPIRG/13 meeting recalled MIDANPIRG/12 *Conclusion 12/46: Exchange of Surveillance data* and encouraged all MID States to share surveillance data to significantly reduce surveillance gaps in order to enhance safety and efficiency with no huge investments.

5.17 The meeting noted AN-Conf/12 *Recommendation 1/7 – Automatic dependent surveillance — broadcast*

That States:

a) recognize the effective use of automatic dependent surveillance — broadcast (ADS-B) and associated communication technologies in bridging surveillance gaps and its role in supporting future trajectory-based air traffic management operating concepts, noting that the full potential of ADS-B has yet to be fully realized;

b) recognize that cooperation between States is key towards improving flight efficiency and enhancing safety involving the use of automatic dependent surveillance — broadcast technology.

That ICAO:

c) urge States to share automatic dependent surveillance — broadcast (ADS-B) data to enhance safety, increase efficiency and achieve seamless surveillance and to work closely together to harmonize their ADS-B plans to optimize benefits.

5.18 Based on the above, the meeting reviewed the MID Region Surveillance strategy and timelines for the ADS-B out implementation, the MID Region Strategy for the Implementation of ADS-B out, and Surveillance Strategy for other ICAO Regions. The meeting developed MID Region Surveillance Strategy as at **Appendix 5B** to the Report on Agenda Item 5. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 5/6: MID SURVEILLANCE STRATEGY

*That, the MID Surveillance Strategy as at **Appendix 5B** to the Report on Agenda Item 5 be adopted.*

5.19 The meeting agreed that the above draft conclusion and the strategy be presented to the CNS/ATM/IC SG meeting before presenting to MIDANPIRG/14 in order to consolidate the operational issues and any other improvement required. Furthermore, the meeting encouraged MID States to share surveillance data.

5.20 The meeting noted that ICAO MID Regional office issued a follow-up State Letter AN 7/27 – 12/210 dated 11 July 2012, on *Conclusion 13/43: Allocation of 24 BIT Aircraft Address* for which the following States (Bahrain, Egypt, Iraq, Jordan, Kuwait, Oman and Saudi Arabia) provided replies. The meeting urged MID States that did not reply to send their replies to ICAO MID Regional Office and MID RMA as requested by the conclusion.

5.21 The meeting recalled that regional planning and implementation process is facilitated through formulation of regional Air Navigation Plans (ANPs) which are developed and maintained through the Planning and Implementation Regional Groups (PIRGs).

5.22 The meeting recalled that MIDANPIRG/12, through Decision 12/49, recognized the need for a complete review of both the content and format of the MID Basic ANP and FASID. The need to evolve the current ANPs to a new web-based format (eANPs) was also underlined.

5.23 The meeting noted that MIDANPIRG/13 recognized that the task requested by MIDANPIRG through Decision 12/49 is huge and challenging. Accordingly, MIDANPIRG/13 meeting agreed to the establishment of an Ad-hoc Working Group tasked with the development of a revised version of the MID ANP (both Basic ANP and FASID), under Decision 13/32:

DECISION 13/32: ESTABLISHMENT OF THE MID AIR NAVIGATION PLAN AD-HOC WORKING GROUP (ANP WG)

That, the MID Air Navigation Plan Ad-hoc Working Group (ANP WG) be established to fulfill the requirements set up by MIDANPIRG through Decision 12/49.

5.24 The meeting noted that the *Global Air Navigation Plan* (Doc 9750,GANP) and its supporting concepts including the ASBUs, the technology roadmaps and a regional planning framework and associated metrics, along with the importance of adequate frequency spectrum to support the ASBUs, were discussed during the AN-Conf/12, and the following recommendations accepted by the conference:

Recommendation 1/1 – The draft Fourth Edition of the Global Air Navigation Plan (Doc 9750, GANP)

That States:

a) agree in-principle, with the inclusion of high level policy principles and other proposed improvements made at this conference, with the updated draft Fourth Edition of the GANP; and

b) should have the opportunity to provide any final comments on the updated draft GANP to ICAO before it is considered by the ICAO Assembly in 2013.

That ICAO:

c) convene a symposium in 2014 where interested stakeholders will be invited to join together to provide end-to-end system demonstrations of new air traffic management (ATM) concepts;

d) develop financial policies which support efficient acquisition and implementation of global air navigation services infrastructure and aircraft equipage;

e) taking a total systems and performance-based approach, create a Standards and Recommended Practices development plan for the aviation system block upgrades including the establishment of agreed global priorities between the different blocks and modules;

f) define a stable and efficient process for endorsement by the 38th Session of the Assembly, for updating the GANP that ensures stability in module timelines for any future updates; and

g) ensure that the nature and status of the planning information in the various documents pertaining to the GANP are consistent and complete and allow due account to be taken of the inputs from ATM research, development and deployment programmes.

5.25 The meeting noted that with regard to Regional Air Navigation Plans (ANPs) and for the process of aligning the regional ANPs with the GANP. AN-Conf/12 agreed that PIRGs should focus initially on implementing ASBU Block 0 Modules and finalize the development of their ASBU aligned regional plans by May 2014. Furthermore, as a means of interregional harmonization for ASBU implementation, AN-Conf/12 agreed to use the various means available to address impediments, including the All Planning and Implementation Regional Group (ALLPIRG) meetings. In this regard, the AN-Conf/12 welcomed the proposal of ICAO to convene an ALLPIRG meeting in March 2013. In order to identify and resolve any roadblocks for ASBU implementation, the AN-Conf/12 encouraged States and PIRGs to use the Air Navigation Report Form (ANRF) which was developed to identify such issues.

5.26 The meeting was presented with the current CNS Performance Framework Forms (PFF) and the ANRF templates and noted that a Special Implementation Project (SIP) Workshop on Preparations for AN-Conf/12 – ASBU Methodology was held at the ICAO MID Regional office (Cairo, 30 September - 4 October 2012**)** were these ANRF templates explained in details.

5.27 The meeting noted that AN-Conf/12 agreed to the following recommendation after discussions in relevant committee:

Recommendation 6/1 – Regional performance framework – planning methodologies and Tools

That States and PIRGs:

a) develop and maintain regional air navigation plans consistent with the Global Air Navigation Plan;

b) finalize the alignment of regional air navigation plans with the Fourth Edition of the Global Air Navigation Plan by May 2014;

c) focus on implementing aviation system block upgrade Block 0 Modules on the basis of operational requirements, recognizing that these modules are ready for deployment;

d) use the electronic regional air navigation plans as the primary tool to assist in the implementation of the agreed regional planning framework for air navigation services and facilities;

e) consider how the continuous monitoring approach to safety oversight maps to the evaluation of Member States' safety oversight capabilities concerning aviation system block upgrades;

f) involve regulatory and industry personnel during all stages of planning and implementation of aviation system block upgrade modules;

g) develop action plans to address the identified impediments to air traffic management modernization as part of aviation system block upgrade planning and implementation activities;

That ICAO:

h) review the current amendment process to the Regional Air Navigation Plans(ANPs) and recommend improvements to increase efficiencies related to the approval and maintenance of the data in the regional ANPs;

i) develop guidance material, on the basis of best practices employed worldwide, for the regional/local deployment of new ATM technologies, required procedures, operational approvals and continue to support States in the implementation of the aviation system block upgrades;

j) identify the issues, funding, training and resource requirements necessary to support a safety framework that would lay the foundation for successful implementation the aviation system block upgrades;

k) develop an outreach strategy to address the economic and institutional impediments to implementation of the aviation system block upgrades; and

l) develop a mechanism for sharing of best practices for the aviation system block upgrade implementation.

5.28 Based on all the above, the meeting reviewed and updated the CNS FASID tables and agreed to the following:

- FASID tables related to AFTN, AMHS, Circuit and all that could be produced by the MID-AMC be directly updated on the AMC and reproduced when requested;
- States will participate actively in the work of the ANP WG; and
- ATN-IPS WG/5 develop the Regional ANRF

5.29 The meeting also agreed that the amendment proposal for the CNS Part of the MID ANP BASIC and FASID be sent by the secretariat based on the outcome of the ANP WG meeting.

Allocations

Region: MID
Allocation Reference between:
and:
Ad hoc: Yes
Country:
Allocation Status: Issued
Cluster:
Regular: Yes
Organisation:
Sensor Id:
Interrogator Code:
Processing Cycle:

Allocation Ref	Organisation	Sensor ID	Status	IC	Effective Date	Cluster	Process ID	Country	Regions
MICA/ALLOC 461	NANSC	Aswan ERR	Issued	II = 02	2009-05-14		Ad Hoc 2009-05-14	Egypt	MID
MICA/ALLOC 462	NANSC	Asyut ERR	Issued	II = 03	2009-05-14		Ad Hoc 2009-05-14	Egypt	MID
MICA/ALLOC 464	NANSC	Hurghada ERR	Issued	II = 05	2009-05-14		Ad Hoc 2009-05-14	Egypt	MID
MICA/ALLOC 465	NANSC	Mersa Matruh ERR	Issued	II = 06	2009-05-14		Ad Hoc 2009-05-14	Egypt	MID
MICA/ALLOC 467	Lebanon DGCA	Baysour	Issued	II = 02	2009-04-23		Ad Hoc 2009-04-23	Lebanon	MID
MICA/ALLOC 529	GACA	MADINAH	Issued	II = 04	2010-03-17		Ad Hoc 2010-04-06	Saudi Arabia	MID
MICA/ALLOC 530	GACA	RAFHA	Issued	II = 05	2010-03-17		Ad Hoc 2010-04-06	Saudi Arabia	MID
MICA/ALLOC 531	GACA	TURAIF	Issued	II = 10	2010-03-17		Ad Hoc 2010-04-06	Saudi Arabia	MID
MICA/ALLOC 567	GACA	AL JOUF	Issued	II = 08	2010-10-21		ICAC 11	Saudi Arabia	MID
MICA/ALLOC 568	GACA	AL-WEJAH	Issued	II = 01	2010-10-21		ICAC 11	Saudi Arabia	MID
MICA/ALLOC 569	GACA	GASSIM	Issued	II = 03	2010-10-21		ICAC 11	Saudi Arabia	MID
MICA/ALLOC 570	GACA	HAIL	Issued	II = 02	2010-10-21		ICAC 11	Saudi Arabia	MID
MICA/ALLOC 571	GACA	KAIA	Issued	II = 08	2010-10-21		ICAC 11	Saudi Arabia	MID
MICA/ALLOC 572	GACA	TABUK	Issued	II = 06	2010-10-21		ICAC 11	Saudi Arabia	MID
MICA/ALLOC 615	MOTC	Muscat	Issued	II = 11	2010-06-29		Ad Hoc 2010-06-22	Oman	MID
MICA/ALLOC 630	NANSC	Cairo ERR	Issued	II = 11	2011-04-07		ICAC 12	Egypt	MID
MICA/ALLOC 631	GACA	ABHA	Issued	II = 02	2011-04-07		ICAC 12	Saudi Arabia	MID
MICA/ALLOC 632	GACA	BAHA	Issued	II = 06	2011-04-07		ICAC 12	Saudi Arabia	MID
MICA/ALLOC 633	GACA	KFIA	Issued	II = 08	2011-04-07		ICAC 12	Saudi Arabia	MID
MICA/ALLOC 634	GACA	KKIA	Issued	II = 01	2011-04-07		ICAC 12	Saudi Arabia	MID
MICA/ALLOC 635	GACA	QAISUMAH	Issued	II = 06	2011-04-07		ICAC 12	Saudi Arabia	MID

Allocation Ref	Organisation	Sensor ID	Status	IC	Effective Date	Cluster	Process ID	Country	Regions
MICA/ALLOC 636	GACA	SODA	Issued	II = 11	2011-04-07		ICAC 12	Saudi Arabia	MID
MICA/ALLOC 644	GACA	Training Station	Issued	II = 09	2011-03-02		Ad Hoc 2011-03-04	Saudi Arabia	MID
MICA/ALLOC 674	GACA	AFIF	Issued	II = 10	2011-09-22		ICAC 13	Saudi Arabia	MID
MICA/ALLOC 675	GACA	HARAD	Issued	II = 11	2011-09-22		ICAC 13	Saudi Arabia	MID
MICA/ALLOC 676	GACA	Khayber	Issued	II = 07	2011-09-22		ICAC 13	Saudi Arabia	MID
MICA/ALLOC 677	GACA	SHARURAH	Issued	II = 08	2011-09-22		ICAC 13	Saudi Arabia	MID
MICA/ALLOC 678	GACA	SHAYBAH	Issued	II = 07	2011-09-22		ICAC 13	Saudi Arabia	MID
MICA/ALLOC 679	GACA	WADI AL-DAWASIR	Issued	II = 07	2011-09-22		ICAC 13	Saudi Arabia	MID
MICA/ALLOC 743	BCAA	Site 116	Issued	II = 04	2011-12-17		Ad Hoc 2011-12-21	Bahrain	MID
MICA/ALLOC 744	BCAA	Site 117	Issued	II = 09	2011-12-17		Ad Hoc 2011-12-21	Bahrain	MID
MICA/ALLOC 823	Jordan CARC	ModeS-1	Issued	II = 12	2012-08-23		ICAC 15	Jordan	MID

CNS SG/5
Appendix 5B to the Report on Agenda Item 5

MID REGION SURVEILLANCE STRATEGY

Considering the:

a) ICAO strategic objectives;
b) ICAO Business Plan;
c) Global Air Traffic Management Operational Concept;
d) Global Air Navigation Capacity & Efficiency Plan
e) 12th Air Navigation Conference (AN-Conf/12). recommendation

Recognizing that:

i) the implementation of data-link surveillance technologies is an evolutionary process, but which has significant potential for safety and cost-effectiveness; and
ii) implementation of Surveillance technologies is in support of various Global Plan Initiatives;

The MID Region strategy for the implementation of Surveillance technologies be implemented in close collaboration with users is detailed below:

1) minimize reliance on position reporting, particularly voice reporting & Primary Radar;

2) maximize contiguous coverage and use of ADS-B on major routes/terminal areas;

3) make full use of SSR Mode 'S' capabilities, reduce reliance on 4 digit octal code;

4) make use of ADS-C when ADS-B, SSR or multilateration not supported;

5) encourage Multilateration for surface, terminal & area surveillance;

6) improve safety through sharing ATS surveillance data across FIR boundaries;

7) broaden scope of cooperation between ANSPs and Stakeholders;

8) acknowledge the development of other Regions and should consider incremental introduction of new surveillance technologies;

9) increase use of Aircraft Derived Data; and

10) the MID Region ADS-B implementation times line is set for 2017

11) be evolutionary and consistent with the Global Air Navigation Plan taking into consideration associated MID Region priorities;

12) when cost/benefit models warrant it, prioritize implementation in areas where there is no radar coverage surveillance, followed by areas where implementation would otherwise bring capacity and operational efficiencies;

13) ensure that implementation of Surveillance technologies are harmonized, compatible and interoperable with respect to operational procedures, supporting data link and ATM applications;
14) identify sub-regional areas where the implementation of ADS-B would result in a positive cost/benefit in the near term, while taking into account overall Regional developments and implementation of ADS-B in adjacent homogeneous ATM areas;

15) be implemented following successful trial programmes with regards to safety and operational feasibility, taking into account studies and implementation experiences from other ICAO Regions;

16) the proportions of equipped aircrafts are also critical for the surveillance technologies deployment, for which it is required to periodically provide, at least, the following information: number of equipped aircrafts operating in the concern airspace, number and name of the airlines that have equipped aircrafts for, surveillance technologies type of equipped aircrafts, categorization of the accuracy/integrity data available in the aircrafts;

17) the surveillance techniques and ADS-B deployment should be associated at early stages in coordination with the States/Regional/International Organizations responsible for the control of adjacent areas, and the correspondent ICAO Regional Office, establishing a plan in the potential areas of surveillance data sharing, aimed at a coordinated, harmonious and interoperable implementation;

18) each State/Regional/International Organization should investigate and report their own Administration's policy in respect to the surveillance and ADS-B data sharing with their neighbours and from cooperative goals;

19) surveillance including ADS-B data sharing plan should be based selecting centres by pairs and analyzing the benefits and formulating proposals for the ADS-B use for each pair of centre/city with the purpose to improve the surveillance capacity~~;~~

20) it is necessary to consider implementing surveillance solutions for surface movement control by the implementation of as per the technologies roadmaps in the Global plan;

21) the implementation would be in conformity with the SARPs, ICAO guidelines and the MIDANPIRG conclusions and according to MID Surveillance Strategy and implementation should be monitored to ensure collaborative development and alignment with the MID Region projects;

22) The implementation of ADS-B would require aircraft equipped with avionics compliant with either:

    i) Version 0 ES as specified in Annex 10, volume IV, Chapter 3, paragraph 3.1.2.8.6 (up to and including amendment 83 to annex 10) and chapter 2 of draft technical Provisions for Mode S services and extended Squitter (ICAO Doc 9871) to be used till at least 2020, or

    ii) Version 1 ES as specified in chapter 3 draft Technical Provisions for Node S Services and Extended Squitter (ICAO Doc 9871) Equivalent to DO260A.

REPORT ON AGENDA ITEM 6: REVIEW OF AIR NAVIGATION DEFICIENCIES IN THE CNS FIELD

6.1 The meeting recalled that identification, assessment and reporting of air navigation deficiencies represent a regular task of the ICAO Planning and Implementation Regional Groups (PIRGs), and the standard definition of deficiency adopted by the ICAO Council in November 2001 should be used as basis to avoid different interpretations.

6.2 The meeting recalled that MIDANPIRG/13 noted that ICAO has developed a prototype system for the management of air navigation deficiencies at the global level based on the current Planning and Implementation Regional Group (PIRG)/regional efforts which are using respective regional air navigation deficiency databases (e.g.: MANDD for the MID Region) to support the implementation of the Uniform Methodology. The centralized system to manage deficiencies at the global level has been incorporated into the integrated Safety Trend Analysis and Reporting System (iSTARS) framework accessible through the ICAO safety page www.icao.int. The complete transition from the current five regional air navigation databases to single centralized database on iSTARS is scheduled for December 2012.

6.3 The meeting further recalled that MIDANPIRG/12 recognized that the identification and reporting of Air Navigation Deficiencies by User Organizations contribute significantly to the enhancement of air navigation safety in the MID Region. Accordingly, the meeting urged User Organizations (IATA and IFALPA) to use the online facility offered by MANDD to submit requests for additions, updates, and the elimination of Air Navigation Deficiencies. In this regard, IFALPA updated the meeting they use this facility whenever needed.

6.4 Jordan informed the meeting that Lebanon has a concern about routing of certain area that would be contained in some AFTN messages originated/addressed by/to the Amman COM center. Consequently, and to ensure the flow of traffic and its aeronautical information, a new international AFTN circuit has been established between the Amman COM center and the Nicosia COM center on bilaterally basis to make sure that AFTN messages are not lost or misplaced.

6.5 Jordan requested the deletion of the deficiency. However the meeting had concern on this deletion without the presence of Lebanon. Accordingly, the meeting agreed that the remarks column in the deficiency to clearly show that Jordan is ready, and further action for deletion of deficiency to be initiated.

6.6 The meeting reviewed and updated the list of deficiencies in the CNS field as at **Appendix 6A** to the Report on Agenda Item 6, and urged States to take necessary follow-up actions.

CNS SG/5
Appendix 6A to the Report on Agenda Item 6

Deficiencies in the CNS Field

BAHRAIN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	AFTN Rationalized Plan (LIM MID RAN Rec 6/6, 6/9 and MIDANPIRG/4 Conclusion 4/19)	Afghanistan-Bahrain-Kabul-Bahrain AFTN Circuit	The circuit is not yet implemented	Oct, 1998	Bahrain is ready to implement the circuit	O	Follow-up the matter with IATA concerning Afghanistan VSAT are available and now checking compatibility	Afghanistan Bahrain	Jun, 2013	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the CNS Field

EGYPT

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the CNS Field

IRAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	AFTN Rationalized Plan (LIM MID RAN Rec 6/6, 6/9 and MIDANPIRG/4 Conclusion 4/19)	Afghanistan-Iran-Kabul-Tehran AFTN Circuit	The circuit is not yet implemented	Oct, 1998	VSAT network to be implemented	S	Iran advised that they are ready	Afghanistan Iran	Jun, 2013	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the CNS Field

IRAQ

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ATS Direct Speech circuit	Iraq - Syria	ATS Direct speech circuit between adjacent centers is needed	Oct, 2008	New reported	O	Iraq Advise they can provide VSAT	Iraq and Syria	Jun, 2013	U
2	ATS Direct Speech circuit	Iraq - Jordan	ATS Direct speech circuit between adjacent centers is needed	Jan, 2009	newly reported	O	Iraq advised they can provide VSAT. However the VSAT was not provided yet and Jordan prepared the site.	Iraq and Jordan	Jun, 2013	U
3	MID FASID	Baghdad VOR	VOR not installed	Jan, 2009	Newly Reported	O	Iraq advised that all NAV AIDs will be installed according to the master plan	Iraq	Jun, 2013	U
4	MID FASID	Baghdad DME	DME not installed	Jan, 2009	Newly reported	O	Iraq advised that all NAV AIDs will be installed according to the master plan	Iraq	Jun, 2013	U

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the CNS Field

JORDAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	AFTN Rationalized Plan (LIM MID RAN Rec 6/6, 6/9 and MIDANPIRG/4 Conclusion 4/19)	Jordan-Lebanon-Amman-Beirut AFTN Circuit	The circuit is not yet implemented	Oct, 1998	Jordan is ready to implement the circuit and already sent official letter to Lebanon in June 2010	S	Jordan is aleady co-ordinating with Lebanon	Jordan - Lebanon	Jun, 2013	A
2	ATS Direct Speech circuit	Iraq - Jordan	ATS Direct speech circuit between adjacent centers is needed	Jan, 2009	Newly reported	O	Iraq advise they can provide VSAT, Jordan Prepared the site and waiting for Iraq to install the VSAT	Iraq - Jordan	Jun, 2013	U

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the CNS Field

KUWAIT

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the CNS Field

LEBANON

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	AFTN Rationalized Plan (LIM MID RAN Rec 6/6, 6/9 and MIDANPIRG/4 Conclusion 4/19)	Jordan-Lebanon Amman-Beirut AFTN Circuit	The circuit is not yet implemented	Oct, 1998	Lebanon is getting ready to implement the circuit	S	If problem persist, another alternative should be proposed in the MID AFTN Plan	Jordan Lebanon	Jun, 2013	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the CNS Field

OMAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Direct Speech circuit (LIM MID RAN)	Oman - Yemen	Direct Speech circuit is required	Oct, 1998	under Implementation	O	Oman confirm they are ready and advised direct speech circuit will be operational when Yemen is ready	Oman - Yemen	Jun, 2013	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the CNS Field

QATAR

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the CNS Field

SAUDI ARABIA

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the CNS Field

SYRIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	ATS Direct SPeech circuit	Syria - IRAQ	Direct Speech circuit required between Syria and Iraq	Oct, 2008	-	O	Iraq advise they are ready to provide VSAT for the implementation	Syria-Iraq	Jun, 2013	U

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the CNS Field

UAE

Item No	Identification		Deficiencies			Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action

No Deficiencies Reported

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the CNS Field

YEMEN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Direct SPeech Circuit with Adjacent center Djibouti	Yemen - Djibouti	requirement for a Direct SPeech Circuit with Adjacent center Djibouti	Oct, 1998	-	O	Establishment fo direct speech circuit between Yemen and Djibouti	Yemen - Djibouti	Jun, 2013	A
2	Direct SPeech Circuit with Adjacent center India	Yemen - India	Direct SPeech Circuit with Adjacent center India	Oct, 1998	-	O	Establishments of a Direct SPeech Circuit with Adjacent center in India	Yemen - India	Jun, 2013	A
3	Direct SPeech Circuit with Adjacent center Oman	Yemen - Oman	Requirement for a Direct SPeech Circuit with Adjacent center Oman	Oct, 1998	-	O	Establish a direct Speech Circuit with Adjacent center Oman	Yemen - Oman	Jun, 2013	A
4	Direct SPeech Circuit with Adjacent center with Eritrea and Somalia	Yemen - Eritrea , Somalia	requirement for a direct Speech Circuit with Adjacent center in Eritrea and Somalia	Oct, 1998	-	O	Establishment of direct Speech Circuit with Adjacent center in Eritrea and Somalia	Yemen - Eritrea , Somalia	Jun, 2013	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Note:* Priority for action to remedy a deficiency is based on the following safety assessments:

'U' priority = Urgent requirements having a direct impact on safety and requiring immediate corrective actions.

Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for air navigation safety.

'A' priority = Top priority requirements necessary for air navigation safety.

Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.

'B' priority = Intermediate requirements necessary for air navigation regularity and efficiency.

Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation regularity and efficiency.

Definition:

A deficiency is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation.

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(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

REPORT ON AGENDA ITEM 7: FUTURE WORK PROGRAMME

7.1 The meeting noted the constraint on the rationalization process is that a minimum network of terrestrial aids should be maintained to cope with temporary loss of GNSS service. In general, the fundamental requirement to be met by such a network is to fully maintain safety following the loss of GNSS service, and maintain an acceptable level of efficiency and continuity to the extent possible.

7.2 Taking into consideration the development in the CNS field, and the opportunities for the rationalization of terrestrial navigation aids arising with the implementation of performance-based navigation enabled by GNSS capability in the aircraft, and requirement for maintaining the minimum network of terrestrial aid, the meeting reviewed and updated the Terms of Reference (TOR) as at **Appendix 7A** to the Report on Agenda Item 7. Accordingly, the meeting agreed to the following Draft Decision:

DRAFT DECISION 5/7: TERMS OF REFERENCE OF THE CNS SUB-GROUP

*That, the revised Terms of Reference (TOR) for the CNS SG be updated as at **Appendix 7A** to the Report on Agenda Item 7.*

7.3 The meeting was informed that MIDANPIRG/14 will be held in December 2013; accordingly the meeting agreed that the CNS SG/6 be held in first quarter 2014. The venue will be Cairo, unless a State is willing to host the meeting.

CNS SG/5
Appendix 7A to the Report on Agenda Item 7

COMMUNICATION, NAVIGATION AND SURVEILLANCE SUB-GROUP

(CNS SG) OF THE MID REGION

1. Terms of Reference

1.1 The terms of reference of the CNS Sub-Group are:

a) Ensure the continuing and coherent development of the MID Regional Air Navigation Plan in the fields of aeronautical communications, navigation and surveillance (CNS), including the development of CNS elements of the MID CNS/ATM Implementation Plan in the light of new developments, in harmony with the ICAO Global Air Navigation Plan (Doc 9750) and the plans for adjacent regions.

b) Review and identify any deficiencies that impede the implementation or provision of efficient CNS services in the MID Region and recommend correction actions.

c) Provide specific recommendations aimed at improving CNS services through the use of existing procedures and facilities or, through modernization programmes and evolutionary introduction of new procedures or technologies based on operational requirements.

d) Review and identify inter regional or any co-ordination issues in the fields of CNS and recommend actions to address those issues.

e) Monitor and encourage CNS systems research and development, trial and demonstrations in the fields of CNS and facilitate the transfer of this information and expertise between MID States, including studies on institutional arrangement for the implementation of the CNS system in MID Region.

1.2 In order to meet the Terms of Reference, the CNS SG shall:

a) Survey and update of CNS deficiencies in the MID Region on a regular basis and focus on surveys and information from users such as IATA and IFALPA.

b) Follow-up the developments of ICAO position regarding future ITU World Radio Communication (WRC) Conferences and their preparatory meetings, and urge States to support ICAO Position at WRC, and encourage States for the proper utilization of the frequency spectrum.

c) Develop ATN Plan for MID region and assist in its Implementation;

d) Develop Surveillance Plan and Strategy and follow-up implementation for the MID region in coordination with other Sub-Groups to support MID Region Performance Objectives.

e) Review and update ATN/IPS WG TOR and task list and encourage harmonized and coordinated implementation plans, also develop the necessary legal framework for

the use of the MID-AMC.

f) Introduction of data link usage to support the ATC at flight level 290 by 2010.

g) Develop MID CNS Regional Performance Framework Forms supported by detailed action plans and assist in measurement of agreed MID Metric.

h) Provide the necessary expertise to other MIDANPIRG Sub-Groups task forces on issues related to CNS and infrastructure and coordinate requirements with these groups.

i) Assist and encourage States groups to foster implementation of the CNS infrastructure and procedures.

j) Study the AN-Conf/12 recommendation and integrate in the CNS work programme according

2. Composition

2.1 The Sub-Group is composed of:

a) MIDANPIRG States;

b) concerned International/Regional Organizations as observers; and

c) additional representatives from Industry may be invited on ad hoc basis, as observers, when required.

REPORT ON AGENDA ITEM 8: ANY OTHER BUSINESS

8.1 The meeting was informed that Saudi Arabia signed agreements of cooperation with Egypt and Oman among which is the sharing of the studies carried out by the signed States. Furthermore, Saudi Arabia is in process of signing similar agreement with Jordan. The meeting appreciated the initiative and encouraged other States to do the same.

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