International Civil Aviation Organization

Middle East Air Navigation Planning and Implementation Regional Group

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

Agenda Item 5.2.2: Specific Air Navigation issues

MIDAMC OPERATIONS

(Presented by the Secretariat)

<table>
<tr><td>

SUMMARY

This paper presents some of the outcomes of MIDAMC STG/2 meeting related to the enhancement of the MIDAMC operation and support.

Action by the meeting is at paragraph 3.

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REFERENCES

- MIDAMC STG/2 Report
- NAFISAT SVC/10 Report

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1. INTRODUCTION

1.1   The MIDAMC training was successfully conducted from 5 to 7 January 2015 at the IATA premises in Amman, Jordan. The ICAO MID Regional Office issued State letter Reference AN 7/5.1–15/041, announcing the official operation of the MIDAMC, effective 05 February 2015.

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

1.3   The Tenth Meeting of the North Eastern Africa-Indian Ocean (AFI) VSAT Network (NAFISAT) Supervisory Committee was held in Sharm El Sheikh, Egypt 21-24 April 2015. The meeting was attended by thirty-nine (39) participants from (10) States (Djibouti, Egypt, Ethiopia, Kenya, Saudi Arabia, Seychelles, Somalia (FISS), Sudan, Tanzania and Uganda) and the Network Service Provider (ATNS and IATA)

2. DISCUSSION

2.1   The meeting may wish to recall that, the accreditation procedure for the registration of the MIDAMC users was agreed under the following MIDANPIRG/14 Conclusion 14/22, which defined three types of users: MIDAMC Operator, MIDAMC User, and Read-only User. Access to MIDAMC functions varies according to each user category.

2.2   The goal of the procedure is to make sure that only well-identified users with an appropriate level of responsibility are authorized to access the MIDAMC application.

2.3   During the first year of trial and operation, the MIDAMC team received several requests from users outside the ICAO MID Region, who needed to have/create an account on the MIDAMC application. Accordingly, the MIDAMC STG/2 meeting reviewed and updated a new accreditation procedure as at **Appendix A**, and agreed to the following Draft Conclusion:

Why	To update the MIDAMC accreditation procedure in order to allow external users access the MIDAMC
What	MIDAMC accreditation procedure
Who	MIDANPIRG/15
When	June 2015

DRAFT CONCLUSION 2/4:   MIDAMC ACCREDITATION PROCEDURE

That, the accreditation procedure for registering in the MIDAMC be amended as at Appendix A.

2.4   The meeting may wish to note that MIDAMC Operator uses the official email domains to validate user request to register as read-only users. Accordingly, the MIDAMC STG/2 meeting reviewed and updated the list of these domains as at **Appendix B**.

2.5   The MIDAMC has an agreed Synchronization procedure with the EUR AMC operator to keep information updated on both AMCs. The importance of keeping the information in the MIDAMC system updated is to be underlined. Accordingly, the States that have not updated the information on the MIDAMC are urged to do so.

2.6   The MIDAMC STG/2 meeting reviewed the COM Chart for the MID Region, and the connections as at **Appendices C** and **D**, and noted that these can be produced any time using the MIDAMC system.

2.7   It's to be highlighted that MIDAMC sends the three AMHS tables every AIRAC cycle. However, when there is no change in the table, this was not sent. In this regard, the meeting may wish to note that some systems installed in the Region require all three tables even if there is no change. Accordingly, the MIDAMC STG/2 meeting agreed that the MIDAMC send the three tables every AIRAC cycle and agreed to the following Draft Decision:

DRAFT DECISION 2/5:   AMHS TABLE THROUGH MIDAMC

That, the MIDAMC be urged to send the three AMHS tables every AIRAC cycle even if no changes in the tables.

2.8   The MIDAMC STG/2 meeting discussed the difficulties/issues faced in the implementation of the AMHS after procurement and developed the following none exhaustive list:
            coordination issues;
            network infrastructure;
            use of VPN for low traffic and testing; and
            first time tests failures.

2.9   The meeting agreed that the MIDAMC operator post these difficulties and the possible solutions on the MIDAMC Forum and requested all States to add their comments and use the forum more effectively. The meeting MIDAMC STG/2 agreed to the following Draft Decision:

> *Draft Decision 2/1:   MIDAMC Posting on Forum*
>
> *That, MIDAMC Team post the implementation issues/difficulties and possible solutions on the MIDAMC Forum by 30 April 2015.*

2.10   Based on the above, the ICAO MID Regional Office requested the MIDAMC operators to implement the above Decision and it was noted that the implementation issue and difficulties were posted, and the posting of the three AMHS tables will be regular.

2.11   At the tenth meeting of the NAFISAT SVC, ATNS presented information on AMHS MTA to MTA trials conducted between FAOR (Johannesburg) and FBSK (Gaborone) and Addis Ababa using the IP (Internet Protocol) capability of the NAFISAT and SADC VSAT II networks. The trials were successful from a technical perspective and proved the capability of the future NAFISAT platform. However, there were operational challenges observed and ATNS recommended that States should ensure that the training provided by AMHS equipment suppliers is to a level where the configuration can be performed independently of the equipment suppliers.

2.12   In this regard the NAFISAT SVC/10 meeting was informed that the MID Region had achieved the AMHS implementation which included interconnection between systems from different vendors. Furthermore, MID Region had established their own MID ATS Message Management Centre (MIDAMC) and it is has been declared as operational as of 5 February 2015 after more than two years of trials. The SVC/10 meeting encouraged the NAFISAT member States to register as external users on the MIDAMC website: http://www.midamc.jo in order to get used to the MIDAMC operations and gain the access to its library that has useful documentation. Furthermore, the ICAO ESAF States showed interest to join the MIDAMC. This request is under consideration by the MIDAMC and will be discussed at the CNS SG/7 and the MIDAMC STG/3 meetings.

2.13   The MIDAMC STG/2 meeting was apprised of the current Static routes in AFS that do not allow for the automatic failover or redundant paths, so if failure occurs, operators must manually adjust the routes to move data through an alternative path.

2.14   The MIDAMC STG/2 meeting noted that in order to enhance the availability, reliability of the AFS Network and minimize downtime to the minimum, dynamic routing can be deployed. Dynamic routing protocols can update routing tables in the event of device or interface failure, so if there are multiple possible paths, these protocols will continue to allow data flow. However, to achieve this stage detailed studies and trials are needed. It is to be noted that, in order to participate in these trials the States should have, among others the following:

- Backup/Test AMHS System;
- at least two operational AMHS Link;
- Human resources (Network Expert, system engineer, AFS Operator); and
- Vendor support preferable

2.15   The MIDAMC STG/2 meeting agreed that these capabilities are not available in many States and in order to keep the momentum, the meeting agreed to conduct survey at the MIDAMC STG member level and decide further actions in the next meeting based on the survey results.

2.16   The meeting may recall that SITA is operating an AFTN – Type B gateway for over 40 years. The service was using low speed connections to the AFTN network in several States. These inter-connections allowed ATS organizations and airlines to communicate using AFTN messages on the ATS organizations' side and Type B messages on the airlines' side.

2.17   Several AFTN low speed connections reaching end of life required urgent use of alternative IP based connections where possible to continue message exchanges. Considering that AMHS implementation is well advanced within the ICAO MID Region, SITA seeks interconnection with ANSPs within the Region using AMHS. The SITA's AMHS Gateway is operational since November 2014 and ready for AMHS interconnections.

2.18   Based on the above, the CNS SG/6 meeting requested SITA to provide the MIDAMC team with the list of SITA users and the AFTN connections in the MID Region and tasked the MIDAMC to develop the plan to migrate to AMHS/SITA Gateway.

2.19   SITA confirmed that thirteen (13) States in the MID Region (Bahrain, Egypt, Iraq, Iran, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi, Syria, UAE and Yemen) exchange traffic with SITA Network. Furthermore, the MID AMC STG/2 reviewed and updated the SITA "Transition Plan for Interconnection between MID AMHS Network and the SITA Type X Network" and the developed action Plans to Migrate from Gateway Type B to Gateway Type X in Qatar and Jordan. The plans are at **Appendix E**.

2.20   With regard to the routers and other hardware requirements for the replacement of the low speed with IP, SITA had confirmed that they shall provide them and the cost of the message will remain the same as is in the current AFTN connection and no changes to the charging method.

3.   ACTION BY THE MEETING

3.1   The meeting is invited to:

   a) endorse the Draft Conclusion in para 2.3;
   b) urge States that have not updated their data in MIDAMC system to do so;
   c) task MIDAMC STG to study the extension of MIDAMC support to other Regions;
   d) encourage States to join the Dynamic routing trials; and
   e) encourage concerned States to complete SITA migration from gateway type B to gateway type X Type with MIDAMC STG support.

APPENDIX A

MIDAMC Accreditation Procedure

In order to guarantee the confidentiality and integrity of data contained in the MID-AMC database, it is necessary to grant access rights of a given user category only to people that are duly identified and have the right to view and/or modify such data. This process is called accreditation of users, which is defined hereafter for the accreditation of a user in each category:

There are Four MID-AMC user types:

      1) Operator which is equivalent to AMC Operator;
      2) user which is equivalent to AMC CCC Operator;
      3) read-Only User which is equivalent to AMC Read-Only.
      4) external MID AMC User

1-   Operator which is equivalent to AMC Operator;
1.1.   These are the main operators of the MIDAMC

2-   AMC External Operators on European AMC of the MID Region:
2.1.   MID-AMC Operator transferred those users to MID-AMC as MID-AMC Users.
2.2.   AMC External operator to register online on MID-AMC website at
        www.midamc.jo
2.3.   New MID-AMC Users:
2.4.   State to send letter or email to ICAO MID Regional Office to designate a new MIDAMC User.
2.5.   New MID-AMC User to register online on MID-AMC website at www.midamc.jo
2.6.   MIDAMC Operator coordinate with ICAO MID Office to approve the request

3-   **AMC Read-Only Users** on European AMC for the MID Region**:**
3.1.   MID-AMC Operator transferred those users to MID-AMC as MID-AMC Read-only Users.
3.2.   AMC Read-only users to register online on MID AMC website at
        www.midamc.jo
3.4.   New MIDAMC Read-Only User to register online on MID AMC website at
        www.midamc.jo
3.4.   MIDAMC Operator coordinates with the MID AMC User of the corresponding COM center (if any) or with the ICAO MID office to approve the request.

4-   **External MIDAMC User:**
        Users from outside MID Region and act as either CCC on EUR AMC or External AMC user can register on the MIDAMC as **externa**l MIDAMC User:
4.1.   register online at www.midamc.jo
4.2.   MIDAMC Operator check the registration on EUR AMC to validate the registration

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APPENDIX B

<u>**MID Email Domains List**</u>

Bahrain:	Ministry of transportation	@mot.gov.bh
Egypt:	Ministry of Civil Aviation	@ civilaviation.gov.eg
Iran:	Civil Aviation Organization	@cao.ir
	Iran Airports Company	@airport.ir
Iraq:	Iraqi Civil Aviation Authority	@iraqcaa.com
Jordan:	Civil Aviation Regulatory Commission	@carc.gov.jo
Kuwait:	Directorate General of Civil Aviation	@dgca.gov.kw
Lebanon:	Directorate general of Civil Aviation	@dgca.gov.lb @beirutairport.gov.lb @lebcaa.com
Libya:	Libyan Civil Aviation Authority	@caa.ly
Oman:	**Public authority for Civil Aviation**	@paca.gov.om
Qatar:	Civil Aviation Authority	@caa.gov.qa
Saudi:	General Authority of civil Aviation	@gaca.gov.sa
Sudan:	Civil Aviation Authority	@scaa.gov.sd
Syria:	Syrian Civil Aviation Authority	@scaa.sy
UAE:	General Civil Aviation Authority	@gcaa.gov.ae @szc.gcaa.ae
Yemen:	Civil Aviation and Metrological Authority	@camayemen.com
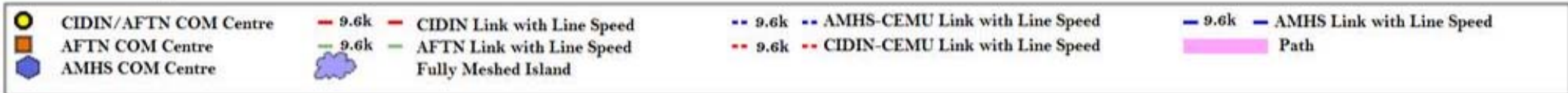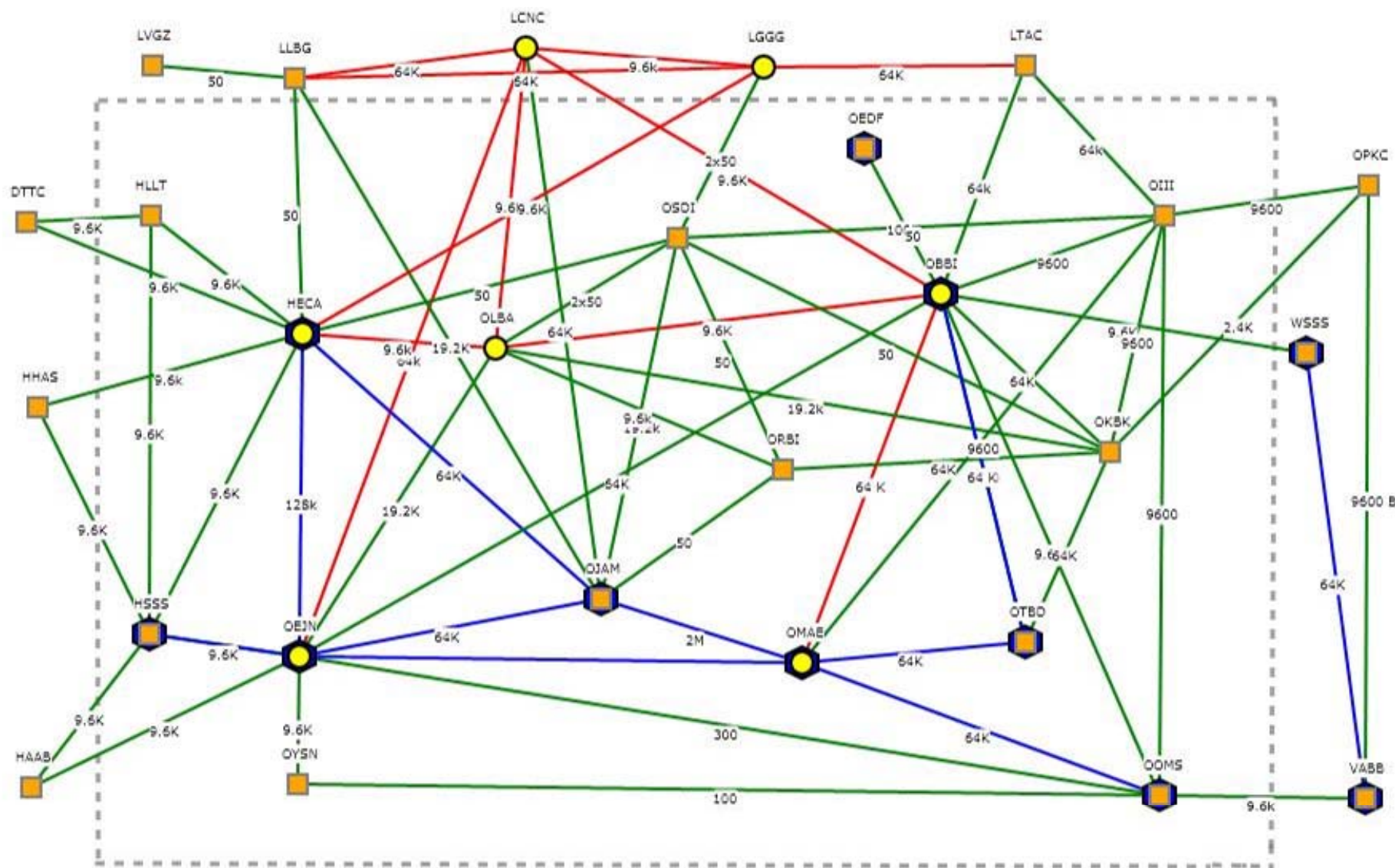
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Network Inventory 🔒

Background Area   [HELP]

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | **AMHS Capabilities** | VCG's | Connections |

Region
MID ▼

COM Centre
OMAE ▼

Location
EMIRATES FIR

Country
United Arab Emirates

HOME

SEARCH

MD Common Name
UAE

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
UAE

MTA Name   OMAE-MTA

☑ ATS Message Server

☑ AFTN/AMHS Gateway

Maximum Content Length   15700

Currently Authorized Message Length   1800

Extended Encoded Information Types in Support of:

Messages Lifetime (Minutes):

Maximum Number of Addresses   512

Converted General-Text Body Parts

☑ IA5

Urgent   1440   **Non Urgent**   1440

☑ ISO 646   ☐ ISO 8859-1

☑ FTBP

Normal   1440   **Report**   1440

Operational Status

☑ General Text Body Part(ISO 646)

OP

☑ General Text Body Part(ISO 8859-1)

Protocol Capabilities

Protocol	P-SEL	S-SEL	T-SEL	Network Address (NSAP or IP)	Active
AMHS/TCP-I			"P1" - 0x5031	192.168:131.93::102	☐

Created by
sara20061

Created on
2015/03/05 14:00:36

Last Modified by
sara20061

Last Modified on
2015/03/05 14:02:21

Operational Area   [HELP]

Persons & Contacts | Com Centres | All Display | MTA profile | VCG's | Connections

Region	COM Centre	Location	Country
MID ▼	HECA ▼	CAIRO/INTL	Egypt

HOME   SEARCH

MD Common Name	Country-Name	ADMD-Name	PRMD-Name
HE	XX	ICAO	HE

MTA Name MTA-HECA-1   ☑ ATS Message Server

Maximum Content Length [ ]

Extended Encoded Information Types in Support of: **Messages Lifetime (Minutes):**

☑ IA5   **Urgent** [ ]   **Non Urgent** [ ]

☑ FTBP   **Normal** [ ]   **Report** [ ]

☐ General Text Body Part(ISO 646)

☐ General Text Body Part(ISO 8859-1)

☑ AFTN/AMHS Gateway

Currently Authorized Message Length [ ]

Maximum Number of Addresses [ ]

Converted General-Text Body Parts

☐ ISO 646   ☐ ISO 8859-1

Operational Status

OP

Protocol Capabilities

Protocol	P-SEL	S-SEL	T-SEL	Network Address (NSAP or IP)	Active

Created by	Created on	Last Modified by	Last Modified on
jomrn1980	2014/08/21 12:03:50		

Network Inventory

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
OJAM

Location
AMMAN/MARKA

Country
Jordan

HOME

SEARCH

MD Common Name
OJ

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
OJ

MTA Name
MTA-OJAM-1

☑ ATS Message Server

☑ AFTN/AMHS Gateway

Maximum Content Length
20000

Currently Authorized Message Length
20000

Extended Encoded Information Types in Support of:

Messages Lifetime (Minutes):

Maximum Number of Addresses
512

☑ IA5

Urgent 44000

Non Urgent 44000

Converted General-Text Body Parts

☑ FTBP

Normal 44000

Report 44000

☑ ISO 646   ☑ ISO 8859-1

☑ General Text Body Part(ISO 646)

Operational Status
OP

☑ General Text Body Part(ISO 8859-1)

Protocol Capabilities

Protocol	P-SEL	S-SEL	T-SEL	Network Address (NSAP or IP)	Active
AMHS/TCP-I				10.100.100.15	☑

Created by
jomrn1980

Created on
2014/06/30 13:14:40

Last Modified by
jomrn1980

Last Modified on
2015/01/01 08:44:57

Network Inventory

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
OEJN

Location
JEDDAH/KING ABDULAZIZ

Country
Saudi Arabia

HOME

SEARCH

MD Common Name
SAUDI ARABIA

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
SAUDI ARABIA

MTA Name MTA-OEJN -1

☑ ATS Message Server

☑ AFTN/AMHS Gateway

Maximum Content Length 1048576

Currently Authorized Message Length 15700

Extended Encoded Information Types in Support of:

Messages Lifetime (Minutes):

Maximum Number of Addresses 512

Converted General-Text Body Parts

☑ IA5

Urgent 1440 **Non Urgent** 1440

☑ ISO 646   ☑ ISO 8859-1

☑ FTBP

Normal 1440 **Report** 1440

Operational Status

☑ General Text Body Part(ISO 646)

OP

☑ General Text Body Part(ISO 8859-1)

Protocol Capabilities

Protocol	P-SEL	S-SEL	T-SEL	Network Address (NSAP or IP)	Active

Created by
jomrn1980

Created on
2014/08/21 13:21:31

Last Modified by
sara20061

Last Modified on
2015/02/10 13:57:28

Network Inventory

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID ▼

COM Centre
OLBA ▼

Location
BEIRUT/BEIRUT INTL

Country
Lebanon

HOME

SEARCH

MD Common Name
OL

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
OL

MTA Name
MTA-OLBA-1

☑ ATS Message Server

☑ AFTN/AMHS Gateway

Maximum Content Length
2000000

Currently Authorized Message Length
64000

Extended Encoded Information Types in Support of:

Messages Lifetime (Minutes):

Maximum Number of Addresses
512

Converted General-Text Body Parts

☑ IA5

Urgent 360 　**Non Urgent** 8640

☑ ISO 646 　　　　☑ ISO 8859-1

☑ FTBP

Normal 2880 　**Report** 2880

Operational Status
NON OP

☑ General Text Body Part(ISO 646)

☑ General Text Body Part(ISO 8859-1)

Protocol Capabilities

Protocol	P-SEL	S-SEL	T-SEL	Network Address (NSAP or IP)	Active
AMHS/TCP-I			0x544350		☐

Created by
sara20061

Created on
2015/03/05 12:24:53

Last Modified by
sara20061

Last Modified on
2015/03/05 12:44:50

Network Inventory

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
OOMS

Location
MUSCAT/MUSCAT INTL

Country
Oman

HOME   SEARCH

MD Common Name
OO

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
OO

MTA Name
MTA-OOMS-1

☑ ATS Message Server

☑ AFTN/AMHS Gateway

Maximum Content Length

Currently Authorized Message Length

Extended Encoded Information Types in Support of:

Messages Lifetime (Minutes):

Maximum Number of Addresses

☐ IA5

Urgent   **Non Urgent**

Converted General-Text Body Parts

☐ ISO 646   ☐ ISO 8859-1

☐ FTBP

Normal   **Report**

Operational Status
OP

☐ General Text Body Part(ISO 646)

☐ General Text Body Part(ISO 8859-1)

Protocol Capabilities

Protocol	P-SEL	S-SEL	T-SEL	Network Address (NSAP or IP)	Active

Created by
jomrn1980

Created on
2014/06/30 13:58:14

Last Modified by

Last Modified on

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
HSSS

Location
KHARTOUM

Country
Sudan

HOME

SEARCH

MD Common Name
HS

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
HS

MTA Name
MTA-HSSS-1

☑ ATS Message Server

☑ AFTN/AMHS Gateway

Maximum Content Length
2000000

Currently Authorized Message Length
64000

Extended Encoded Information Types in Support of:

Messages Lifetime (Minutes):

Maximum Number of Addresses
512

☑ IA5

Urgent 360

Non Urgent 8640

Converted General-Text Body Parts

☑ FTBP

Normal 2880

Report 2880

☑ ISO 646   ☑ ISO 8859-1

☑ General Text Body Part(ISO 646)

Operational Status
OP

☑ General Text Body Part(ISO 8859-1)

Protocol Capabilities

Protocol	P-SEL	S-SEL	T-SEL	Network Address (NSAP or IP)	Active

Created by
jomrn1980

Created on
2014/08/21 12:36:42

Last Modified by
mubark_g

Last Modified on
2015/02/25 09:11:41

Network Inventory

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region MID

COM Centre OJAM

Location AMMAN/MARKA

Country Jordan

HOME   SEARCH

MD Common Name OJ

Country-Name XX

ADMD-Name ICAO

PRMD-Name OJ

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
HECA	AMHS/TCP-I		Leased Line	64K	JTC	☑		--
LCNC	CONV. AFTN		Digital Leased Line	64K	Batelco/CYTA	☑		--
LLBG	CONV. AFTN		AFTN	19.2K		☑		--
OEJN	AMHS/TCP-I		Leased Line	64K	STC	☑		--
OMAE	AMHS/TCP-I		VPN	2M		☑		--
ORBI	AFTN X25			50		☐		--
OSDI	CONV. AFTN			19.2k		☑		--

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	
OLBA	AMHS	10.100.100.15	VPN	2MHz		☐	Add	--
ORBI	AMHS/TCP-I		VSAT			☐	Change	--
ORBI	CONV. AFTN		VSAT			☐	Add	--

REPORT

Network Inventory

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
OBBI

Location
BAHRAIN INTERNATIONAL

Country
Bahrain

HOME

SEARCH

MD Common Name
OB

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
OB

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
LCNC	CIDIN PVC			9.6K		☑		--
LTAC	CONV. AFTN		Digital Leased Line	64k		☑		--
OEDF	AFTN X25			100		☑		--
OEJN	CONV. AFTN		SYNC	64K	STC	☑		--
OIII	CONV. AFTN			9600		☑		--
OKBK	CONV. AFTN			64K		☑		--
OLBA	CIDIN PVC			9.6K		☑		--
OMAE	CIDIN PVC			64 K		☑		--
OOMS	AFTN X25			9.6K		☑		--
OTBD	AFTN X25			1200		☑		--
OTBD	AMHS			64 K		☑		--
WSSS	AFTN X25		AFTN X.25	9.6K		☑		--

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	
LCNC	CIDIN PVC		Digital Leased Line	64K	Batelco/CYTA	☐	Add	--
OEJN	AMHS			64K		☐	Change	--
OLBA	AMHS		VPN			☐	Add	--
WSSS	AMHS/TCP-I		IPS	64K		☐	Add	--

REPORT

Network Inventory

Operational Area

Persons & Contacts | **Com Centres** | **AFTN / CIDIN Capabilities** | **AMHS Capabilities** | **VCG's** | **Connections**

Region
MID

COM Centre
HECA

Location
CAIRO/INTL

Country
Egypt

HOME

SEARCH

MD Common Name
HE

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
HE

Existing Connections

	Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
	DTTC	AFTN X25		Leased Line	9.6K		☑		--
	HHAS	AFTN X25			9.6k		☑		--
	HKNA	CONV. AFTN			9.6k		☑		--
	HLLT	CONV. AFTN			9.6K		☑		--
	HSSS	CONV. AFTN		asynch	9.6K	NAFISAT	☑		--
	LGGG	CIDIN PVC			9.6K		☑		--
	LLBG	CONV. AFTN		AFTN	50		☑		--
	OEJN	AMHS/TCP-I		Leased Line	128k	PTT	☑		--
	OJAM	AMHS/TCP-I		Leased Line	64K	JTC	☑		--
	OLBA	CIDIN SVC			9.6k		☑		--
	OSDI	CONV. AFTN			50		☑		--

Planned Connections

	Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	
	DTTC	AMHS/TCP-I		Leased Line	64k	TUNISIE TELECOM	☐	Change	--
	HSSS	AMHS		TCP		telecom company Or NAFISAT	☐	Add	--

REPORT

Network Inventory

Operational Area

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
OIII

Location
TEHRAN/MEHRABAD INTL

Country
Iran, Islamic Republic of

HOME

SEARCH

MD Common Name
OI

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
OI

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
LTAC	CONV. AFTN			64k		☑		--
OBBI	CONV. AFTN			9600		☑		--
OKBK	CONV. AFTN			9600		☑		--
OMAE	CONV. AFTN			9600		☑		--
OOMS	CONV. AFTN			9600		☑		--
OPKC	CONV. AFTN			9600		☑		--
OSDI	CONV. AFTN			50		☑		--

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	

REPORT

Network Inventory

Operational Area   [HELP]

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
ORBI

Location
BAGHDAD INTERNATIONA

Country
Iraq

HOME   SEARCH

MD Common Name
OR

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
OR

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
OJAM	AFTN X25			50		☐		--
OKBK	AFTN X25			64K		☑		--
OLBA	AFTN X25			9.6k		☐		--
OSDI	AFTN X25			50		☐		--

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	
OJAM	AMHS/TCP-I		VSAT			☐	Change	--
OJAM	CONV. AFTN		VSAT			☐	Add	--

REPORT

Network Inventory

Operational Area

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
OEJN

Location
JEDDAH/KING ABDULAZIZ

Country
Saudi Arabia

HOME

SEARCH

MD Common Name
SAUDI ARABIA

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
SAUDI ARABIA

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
OBBI	AFTN X25			100		☑		–

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	

REPORT

Network Inventory

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
OEDF

Location
DAMMAM/KING FAHD INTI

Country
Saudi Arabia

HOME   SEARCH

MD Common Name
SAUDI ARABIA

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
SAUDI ARABIA

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
OBBI	AFTN X25			100		☑		--

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	

REPORT

Network Inventory

Operational Area

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
OKBK

Location
KUWAIT/INTL AIRPORT

Country
Kuwait

HOME

SEARCH

MD Common Name
OK

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
OK

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
OBBI	CONV. AFTN			64K		☑		--
OIII	CONV. AFTN			9600		☑		--
OLBA	CONV. AFTN			19.2k		☑		--
OPKC	CONV. AFTN			2.4K		☑		--
ORBI	AFTN X25			64K		☑		--
OSDI	CONV. AFTN			50		☑		--
OTBD	AFTN X25			64K		☑		--

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	

REPORT

Network Inventory

Operational Area

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
OLBA

Location
BEIRUT/BEIRUT INTL

Country
Lebanon

HOME

SEARCH

MD Common Name
OL

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
OL

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
HECA	CIDIN SVC			9.6k		☑		--
LCNC	CIDIN SVC			9.6k		☑		--
OBBI	CIDIN PVC			9.6K		☑		--
OEJN	CONV. AFTN		ASYNC	19.2K	STC	☑		--
OKBK	CONV. AFTN			19.2k		☑		--
ORBI	AFTN X25			9.6k		☐		--
OSDI	CONV. AFTN			2x50		☑		--

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	
OBBI	AMHS		VPN			☐	Add	--
OEJN	AMHS		Leased Line	256 Kbps		☐	Add	--
OJAM	AMHS	10.100.100.15	VPN	2MHz		☐	Add	--

REPORT

Network Inventory

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
HLLT

Location
TRIPOLI (TRIPOLI INTL)

Country
Libyan Arab Jamahiriya

HOME   SEARCH

MD Common Name
HL

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
HL

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
DTTC	CONV. AFTN		Leased Line	9.6K		☑		--
FTTT	CONV. AFTN			19200		☑		--
HECA	CONV. AFTN			9.6K		☑		--
HSSS	CONV. AFTN		asynch	9.6K	NAV SAT	☑		--
LIII	CONV. AFTN			64K	PTT Router	☑		--
LMML	CONV. AFTN		Digital	2.4K		☑		--

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	

REPORT

Network Inventory

Operational Area [HELP]

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
OOMS

Location
MUSCAT/MUSCAT INTL

Country
Oman

HOME   SEARCH

MD Common Name
OO

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
OO

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
OBBI	AFTN X25			9.6K		☑		–
OEJN	CONV. AFTN		ASYNC	300	PTT	☑		–
OIII	CONV. AFTN			9600		☑		–
OMAE	AMHS/TCP-I			64K		☑	AMHS Link	–
OYSN	AFTN X25			100		☑		–
VABB	CONV. AFTN		64K Leased Line	9.6k		☑	AFTN/IP	–

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	
VABB	AMHS/TCP-I		IPS	64K		☐	Change	–

REPORT

Network Inventory

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
OTBD

Location
DOHA INTERNATIONAL

Country
Qatar

HOME

SEARCH

MD Common Name
OT

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
OT

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
OBBI	AFTN X25			1200		☑		--
OBBI	AMHS			64 K		☑		--
OKBK	AFTN X25			64K		☑		--
OMAE	AMHS/TCP-I			64K		☑	Bilaterally agreed	--

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	

REPORT

Network Inventory

Operational Area

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
HSSS

Location
KHARTOUM

Country
Sudan

HOME

SEARCH

MD Common Name
HS

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
HS

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
FTTT	CONV. AFTN		asynch	9.6K	NAFISAT	☑		--
HAAB	CONV. AFTN		asynch	9.6K	NAFISAT	☑		--
HECA	CONV. AFTN		asynch	9.6K	NAFISAT	☑		--
HHAS	CONV. AFTN		asynch	9.6K	NAFISAT	☑		--
HLLT	CONV. AFTN		asynch	9.6K	NAV SAT	☑		--
OEJN	CONV. AFTN		ASYNC	9.6K	NAFISAT	☑		--
OEJN	AMHS		tcp		telecom company	☑	active from 15/02/2015	--

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	
HECA	AMHS		TCP		telecom company Or NAFISAT	☐	Add	--

REPORT

Network Inventory

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
OSDI

Location
DAMASCUS/INTL

Country
Syrian Arab Republic

HOME   SEARCH

MD Common Name
OS

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
OS

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
HECA	CONV. AFTN			50		☑		--
LGGG	CONV. AFTN			2x50		☑		--
OIII	CONV. AFTN			50		☑		--
OJAM	CONV. AFTN			19.2k		☑		--
OKBK	CONV. AFTN			50		☑		--
OLBA	CONV. AFTN			2x50		☑		--
ORBI	AFTN X25			50		☐		--

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	

REPORT

Network Inventory

Operational Area

[HELP]

| Persons & Contacts | Com Centres | AFTN / CIDIN Capabilities | AMHS Capabilities | VCG's | Connections |

Region
MID

COM Centre
OYSN

Location
SANAA/INTL

Country
Yemen

HOME

SEARCH

MD Common Name
OY

Country-Name
XX

ADMD-Name
ICAO

PRMD-Name
OY

Existing Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Remark	
OEJN	CONV. AFTN		ASYNC	9.6K	NAFISAT	☑		--
OOMS	AFTN X25			100		☑		--

Planned Connections

Remote COM	Protocol	Network Address	Link Type	Capacity	Supplier	Active	Event Type	

REPORT

Action Plan to Migrate from Gateway Type B to Gateway Type X in Jordan and Qatar

Gateway Type X in Jordan

Task	References	date	Note
1. Installation and Testing of IPv4 Connection	- IP Infrastructure Tests Guidelines EUR Doc 027	Aug 2015	
2. Develop Configuration document of the AMHS Interoperability Test	-ICAO EUR Doc 020 – Appendix E -ICAO EUR Doc 021	Sep 2015	
3. Installation and testing of Redundant IPv4 Connection	- IP Infrastructure Tests Guidelines EUR Doc 027	Oct 2015	
4. Conduct AMHS Interoperability Test	-ICAO EUR Doc 020 – Appendix E	Nov 2015	
5. Develop Configuration document of the AMHS Pre-operational Test	-ICAO EUR Doc 020 – Appendix F	Dec 2015	
6. Conduct AMHS Pre-operational Test	-ICAO EUR Doc 020 – Appendix F	Jan-Feb 2016	
7. Update routing tables in Jordan AMHS System and migration to Gateway Type X	-MID AMC Manual	Mar 2016	

Action Plan to Migrate from Gateway Type B to Gateway Type X in Jordan and Qatar

Gateway Type X in Qatar

Task	References	date	Note
1. Installation and Testing of IPv4 Connection	- IP Infrastructure Tests Guidelines EUR Doc 027	Aug 2015	
2. Develop Configuration document of the AMHS Interoperability Test	-ICAO EUR Doc 020 – Appendix E -ICAO EUR Doc 021	Sep 2015	
3. Installation and testing of Redundant IPv4 Connection	- IP Infrastructure Tests Guidelines EUR Doc 027	Oct 2015	
4. Conduct AMHS Interoperability Test	-ICAO EUR Doc 020 – Appendix E	Nov 2015	
5. Develop Configuration document of the AMHS Pre-operational Test	-ICAO EUR Doc 020 – Appendix F	Dec 2015	
6. Conduct AMHS Pre-operational Test	-ICAO EUR Doc 020 – Appendix F	Jan-Feb 2016	
7. Update routing tables in Qatar AMHS System and migration to Gateway Type X	-MID AMC Manual	Mar 2016	

- END -