



INTERNATIONAL CIVIL AVIATION ORGANIZATION

ATS INTERFACILITY DATA COMMUNICATION AND ON-LINE DATA INTERCHANGE (AIDC/OLDI) SEMINAR

(Cairo, Egypt, 3-5 March 2014)

SUMMARY OF DISCUSSIONS

1. INTRODUCTION

1.1 The Seminar on the Implementation of ATS Interfacility Data Communication and On-Line Data Interchange (AIDC/OLDI Seminar) was successfully held at the ICAO Middle East (MID) Regional Office (Cairo, Egypt, 3-5 March 2014). The objective of the Seminar was to assist the MID States in implementing ASBU B0-FICE to Increase Interoperability, Efficiency and Capacity through Ground-Ground Integration.

1.2 The Seminar was attended by a total of thirty one (31) participants from nine (9) States (Bahrain, Egypt, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, Sudan, and UAE), and two industry supplier (Indra and Thales). The list of participants is at **Attachment A** to the Summary of Discussions.

1.3 On behalf of Mr. Mohamed R. M. Khonji, ICAO Regional Director, Middle East Office, Mr. Raza Gulam, Regional Officer CNS welcomed the participants to Cairo and highlighted that the Seminar will provide the participants with up-to-date implementation status of AIDC and OLDI in the different ICAO Regions, the status of PAN Regional AIDC Interface Control Document (ICD) which is under development by the Inter-regional Taskforce (IRAIDCTF) and the requirements identified between adjacent Regions for implementing ground-ground integration. The Seminar will focus on MID States ATM systems capabilities, compatibilities and interoperability, which will assist to develop harmonized coordinated AIDC/OLDI implementation plan for the MID Region. The event will be an opportunity to share experience gained and lessons learnt by those States that have implemented AIDC and/or OLDI. Finally he thanked all the participants for attending the Seminar and wished them successful deliberations and outcome.

1.4 The Seminar was moderated by Mr. Raza Gulam Regional Officer CNS, ICAO Middle East Office, who was supported by Mr. Li Peng Regional Officer CNS, ICAO APAC Office in Bangkok and Mr. Celso Figueiredo Regional Officer ANS/Imp. ATM, ICAO - EUR/NAT Office in Paris.

1.5 The Seminar followed the below agenda:

- | | |
|----------------|---|
| Agenda Item 1: | Introductions |
| Agenda Item 2: | Global progress and requirements for AIDC/OLDI implementation |
| Agenda Item 3: | Technical and operational training requirements |
| Agenda Item 4: | Template for bilateral letter of agreement on AIDC/OLDI |
| Agenda Item 5: | Discussions and development MID AIDC/OLDI implementation plan |
| Agenda Item 6: | Closing |

2. DISCUSSIONS

2.1 The B0-FICE Module “Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration” as described in ASBU document was presented, this showed clearly that the communication in a data link environment improves coordination between air traffic service units (ATSUs) by using AIDC/OLDI, compared to the voice coordination and the transfer of flight control.

2.2 The Presentations covered the AIDC and OLDI implementation in different Regions. States also presented their experience and plan for implementing either AIDC and/or OLDI. The ATM systems (hardware and software) requirements along with the type of connection protocols were discussed in depth.

2.3 Basic set of messages in AIDC and OLDI were discussed in details and Basic set for implementation in the MID Region was agreed for both AIDC and OLDI. The requirement for the amendment of the Letter of Agreement (LOA) was discussed and templates were presented and the Seminar highlighted what is to be considered during the LOA amendment process.

2.4 The Seminar agreed that assignment of focal point for AIDC/OLDI Implementation will support the implementation. Accordingly, some of the States provided their focal points and it was agreed to send State Letter to all other MID States requesting them to provide focal point details. High level check list for the AIDC/OLDI implementation was also developed. The Seminar discussed the implementation plan and developed a comprehensive list of connections and systems capabilities along with detailed implementation plan as at **Appendix A** to the Summary of Discussions.

2.5 The Seminar developed the following Outcomes and Recommendations :

Outcomes:

- Identified six (6) MID States that should support both (AIDC/OLDI);
- developed an updated AIDC/OLDI Implementation Plan and system capabilities;
- agreed on a minimum AIDC/OLDI set of Messages for implementation in the MID Region;
- agreed on necessary consideration for the amendment of LoA Template;
- developed High level Implementation Check list;
- agreed that State should have AIDC/OLDI Focal points;
- agreed that APAC and EUR Regional Offices support interregional implementation ; and
- agreed on the following list of Recommendations.

Recommendations:

- States to share experience on AIDC/OLDI implementation including sharing of training and implementation packages and visits to other states;
- in order to expedite implementation States are encouraged to engage in test and trials even before signing the Official LoA;
- encourage bilateral AIDC/OLDI Workshops;
- States to identify operational requirements/Scope and improvements (know what are the messages which are needed/supported by other ATSU) and develop LoA accordingly;

- engage both technical and operational experts (CNS/ATM) in the update/amendment of the LoA;
- States (ATSU) having OLDI/AIDC capability to start implementation activities and plan implementation in Q2 2015;
- CNS and ATM Sub Groups to compile the MID AIDC/OLDI Implementation Strategy document to include all references, details of messages; test activities etc.;
- States to provide updates (progress reports) on AIDC/OLDI implementation by 15 August 2014;
- ICAO MID Regional Office to create a web page depository for posting AIDC/OLDI Information etc.; and
- conduct of a follow-up Seminar in Q4 2015.

APPENDIX A

ATS INTER-FACILITY DATA COMMUNICATION (AIDC)/ ON-LINE DATA INTERCHANGE (OLDI) IMPLEMENTATION PLAN

Introduction:

The implementation of the AIDC/OLDI in the ICAO MID region has to be in line with the Global Plan and corresponding Module N° B0-FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground, and the Implementation target dates set in the MID Air Navigation Strategy.

Implementation high level activities are divided as follows:

2014 – 2015

- AIDC/OLDI capable ATSUs start implementation activities with a planned implementation date of Q3 2015. The activity should cover the following: Test activities, Safety assessment, Operator training, Revision of LoA, transition activities, Implementation and Post-implementation reviews.

- The ATSUs not capable of AIDC/OLDI should avail the facility of Standalone AIDC/OLDI terminals with a planned implementation date of Q1 2016 , and budget full AIDC/OLDI Integration for 2015 with a planned implementation date of Q2 2017

2015-2016

The ATSUs using AIDC/OLDI in an Operational environment should assist other ATSUs to implement AIDC/OLDI. The OLDI/AIDC software is readily available therefore the ATSUs waiting for software upgrade should expect a software package by Q4 2015, On receipt of it they should start implementation activities with a planned implementation date of Q2 2016.

2017

All ATSUs are connected by Integrated OLDI/AIDC or Standalone OLDI terminals

Specific requirement:

The following States have been identified; that they need to support both AIDC/OLDI:
Egypt, Iran, Saudi Arabia, Oman, Libya, and Sudan.

EXPLANATION OF THE TABLE

Column

- 1 State/Administration – the name of the State/Administration;
- 2 Location of AIDC/OLDI end system – the location of the AIDC/OLDI end system under the supervision of State/Administration identified in column 1;
- 3 AIDC/OLDI Pair – the correspondent AIDC/OLDI end system;
Location – location of the correspondent AIDC/OLDI end system
State/Administration – the name of the State/Administration responsible for management of the correspondent AIDC end system
- 4 AIDC/OLDI standard used – Wither AIDC/OLDI and the adopted Standard for the connection between the corresponding pairs, AFTN, AFTN/AMHS or ATN;
- 5 Target Date of Implementation – date of implementation of the AIDC/OLDI end system; and
- 6 Remarks – any additional information.

Attachment A - the details on the AIDC/OLDI system and the focal point this will facilitate the implementation and contacting hat will accelerate the implementation.

State/Administration	Location of AIDC/OLDI end system	AIDC/OLDI Pair		AIDC/OLDI standard used	Target date of Implementation	Remarks
		Correspondent Location	Correspondent State/Administration			
1	2	3		4	5	6
Bahrain	Bahrain ACC	Jeddah ACC	Saudi Arabia	OLDI	Q2 2015	
	Bahrain ACC	Riyadh ACC	Saudi Arabia	OLDI	Q2 2015	
	Bahrain ACC	Dammam ACC	Saudi Arabia	OLDI	Q2 2015	
	Bahrain ACC	Doha ACC	Qatar	OLDI	Q2 2015	
	Bahrain ACC	Kuwait ACC	Kuwait	OLDI	Q2 2015	
	Bahrain ACC	Abu Dhabi ACC	UAE	OLDI	Q4 2014	
	Bahrain ACC	Tehran ACC	Iran	OLDI	TBD	
Egypt	CAIRO ACC Cairo Air Navigation Center (CANC)	Athens ACC	Greece	OLDI	Implemented	
	CAIRO ACC (CANC)	Jeddah ACC	Saudi Arabia	OLDI	Q2 2015	
	CAIRO ACC (CANC)	Khartoum ACC	Sudan	OLDI	Q4 2014	
	CAIRO ACC (CANC)	Tripoli ACC	Libya	OLDI	Q2 2015	
	CAIRO ACC (CANC)	Beirut ACC	Lebanon		Q4 2014	
	CAIRO ACC (CANC)	Benghazi ACC	Libya			
	CAIRO ACC (CANC)					

Iran	Tehran ACC	Bahrain ACC	Bahrain	OLDI	TBD	
	Tehran ACC	Abu Dhabi ACC	UAE	OLDI	TBD	
	Tehran ACC					
	Tehran ACC					
	Tehran ACC					
	Tehran ACC					
	Tehran ACC					
Iraq	Baghdad ACC	Kuwait ACC	Kuwait	OLDI	TBD	
	Baghdad ACC	Tehran ACC	Iran	OLDI	TBD	
	Baghdad ACC	Amman ACC	Jordan	OLDI	TBD	
	Baghdad ACC	Ankara ACC	Turkey	OLDI	TBD	
	Baghdad ACC			OLDI	TBD	
Jordan	Amman ACC	Jeddah ACC	Saudi Arabia	OLDI (AMHS)	Q2 2015	
	Amman ACC	Baghdad ACC	Iraq	OLDI	TBD	
	Amman ACC	Damascus ACC	Syria	OLDI	TBD	
	Amman ACC	Kuwait ACC	Kuwait	OLDI	Q2 2015	
	Amman ACC					
Kuwait	Kuwait ACC	Amman ACC	Jordan	OLDI	Q2 2015	
	Kuwait ACC	Bahrain ACC	Bahrain	OLDI	Q2 2015	
	Kuwait ACC	Riyadh ACC	Saudi Arabia	OLDI	Q2 2015	

Lebanon	Beirut ACC Rafic Hariri Intl Airport	Cyprus ACC	Cyprus	OLDI	Implemented	
	Beirut ACC Rafic Hariri Intl Airport	Damascus ACC	Syria	OLDI	TBD	
	Beirut ACC Rafic Hariri Intl Airport	Cairo ACC	Egypt	OLDI	Q4 2014	
Libya	Tripoli ACC	Tunis ACC	Tunis	OLDI/AIDC	TBD	
	Tripoli ACC	Malta ACC	Malta	OLDI/AIDC	TBD	
	Tripoli ACC	Cairo ACC	Egypt	OLDI/AIDC	TBD	
	Tripoli ACC	Khartoum ACC	Sudan	OLDI/AIDC	TBD	
	Tripoli ACC	Chad ACC	Chad	OLDI/AIDC	TBD	
	Benghazi ACC	Malta ACC	Malta	OLDI/AIDC	TBD	
	Benghazi ACC	Tripoli ACC	Libya	OLDI/AIDC	TBD	
Oman	Muscat ACC Muscat Intl AP	Abu Dhabi Sheikh Zayed AN center	UAE	OLDI	Q1 2015	
	Muscat ACC Muscat Intl AP	Jeddah ACC	Saudi Arabia	OLDI	Q2 2015	
	Muscat ACC Muscat Intl AP	Mumbai ACC	India	AIDC	Q2 2015	
	Muscat ACC Muscat Intl AP	Bahrain ACC	Bahrain	OLDI	Q2 2015	
	Muscat ACC Muscat Intl AP					
Qatar	Doha ACC	Abu Dhabi Sheikh Zayed AN center	UAE	OLDI	Implemented 2010	
	Doha ACC					
	Doha ACC					

Saudi Arabia	Riyadh ACC	Jeddah ACC	Saudi Arabia	AIDC (AFTN)	Implemented 2012	
	Riyadh ACC	Dammam ACC	Saudi Arabia	AIDC (AFTN)	Implemented 2012	
	Jeddah ACC	Cairo ACC	Egypt	OLDI	Q2 2015	
	Jeddah ACC	Amman ACC	Jordan	OLDI	Q2 2015	
	Jeddah ACC	Abu Dhabi Sheikh Zayed AN center	UAE	OLDI	Q2 2015	
	Jeddah ACC	Muscat	Oman	OLDI	Q2 2015	
	Jeddah ACC	Khartoum ACC	Sudan	OLDI	Q2 2015	
	Jeddah ACC	Sanaa ACC	Yemen	OLDI	TBD	
	Jeddah ACC					
	Jeddah ACC					
	Jeddah ACC					
Sudan	Khartoum ACC	Cairo ACC (CANC)	Egypt	AIDC/OLDI	Q3 2015	
	Khartoum ACC	Jeddah ACC	Saudi Arabia	AIDC/OLDI	Q2 2015	
	Khartoum ACC	N'Djamena ACC	Chad	AIDC (AFTN)	Implemented 2012	No Daily operations
	Khartoum ACC	Kigali ACC	Congo	AIDC (AFTN)	Implemented 2012	No Daily operations
	Khartoum ACC	Tripoli ACC	Libya	AIDC/OLDI	Q3 2015	
Syria	Damascus ACC	Beirut ACC	Lebanon			
	Damascus ACC	Cairo ACC	Egypt			
	Damascus ACC	Beirut ACC	Lebanon			
	Damascus ACC	Beirut ACC	Lebanon			
	Damascus ACC	Beirut ACC	Lebanon			

UAE	SZC Abu Dhabi	Abu Dhabi Int'l Airport	ADAC	OLDI V4.2	Implemented Apr2009	FMTP 2.0
	SZC Abu Dhabi	Dubai Int'l Airport	DANS	OLDI V4.2	Implemented Jun 2012	FMTP 2.0
	SZC Abu Dhabi	Sharjah Int'l Airport	Sharjah DCA	OLDI V4.2	Implemented Feb 2011	FMTP 2.0
	SZC Abu Dhabi	Ras al Khaimah Int'l Airport	Ras al Khaimah DCA	OLDI V4.2	Implemented Mar 2011	FMTP 2.0
	SZC Abu Dhabi	Al Ain Int'l Airport	ADAC	OLDI V4.2	Implemented Oct 2010	FMTP 2.0
	SZC Abu Dhabi	Doha ATC	Qatar CAA	OLDI V4.2	Implemented Jan 2010	FMTP 2.0
	SZC Abu Dhabi	Jeddah ACC	Saudi Arabia			
	SZC Abu Dhabi	Tehran ACC	Iran			
	SZC Abu Dhabi	Muscat ACC	Oman			
	SZC Abu Dhabi					
Yemen	Sanaa ACC	Jeddah ACC	Saudi Arabia			
	Sanaa ACC	Muscat ACC	Oman			
	Sanaa ACC	Djibouti ACC	Djibouti ACC			
	Sanaa ACC	Mogadishu ACC	Somalia			

Attachment A – Details on ATM systems to support implementation													
State	Focal point contact for AIDC/ OLDI	ATM System	Protocol and Version used	Number of adjacent ATSU's	Number of adjacent ATSU's connected by AIDC/OLDI and type of connection	ATM System Capability		Current use		Planned Use		Intention of using AIDC only	Reasons and Remarks
						AIDC	OLDI	AIDC	OLDI	AIDC	OLDI		
Bahrain	Mr. Mohamed Ali Saleh masaleh@caa.gov.bh	Thales TopSky-C	OLDI 2.3 FMTP 2.0	7	None	✓	✓			✓	✓	No	OLDI to connect to neighboring ATSU's
Egypt		TopSky Thales	OLDI V2.3 AIDC V2.0	7	- 1 OLDI with Athens	✓	✓		✓	✓	✓	No	OLDI in use to connect to EUR (Athens) With Jeddah and Riyadh Q2 2015
Iran		Thales		8	None								
Iraq				5	none								
Jordan	Mr.Mohammad Al Rousan m.rousan@caarc.gov.jo	Aircon 2100 Indra	OLDI 4.1 AIDC 2.0	5	none	✓	✓			✓	✓	No	Planned with Jeddah Q2 2015
Kuwait				3	none	✓	✓				✓	No	OLDI to connect to Bahrain and Riyadh
Lebanon				3	- 1 OLDI with Cyprus		✓				✓	No	OLDI in use to connect to EUR
Libya		Aircon 2000 Indra	OLDI 2.3 AIDC 2.0	7	None	✓	✓					No	Can connect with Sudan Chad and Egypt AIDC and for OLDI Tunis Malta and Egypt
Oman	Mr. Ali Al	Indra Itec	OLDI 4.1	5	none	✓	✓					No	UAE Q1 2015

	Ajmi alihassan@caa.gov.om		AIDC 2.3										Jeddah Q2 2015 Mumbai Q1 2015
Qatar	Mr. Ahmed Al Eshaq ahmed@caa.gov.qa	Selex	OLDI V4.2 FMTP 2.0 AIDC 2.0	3	1	✓	✓		✓		✓		OLDI in use with UAE and planned for use with Bahrain
Saudi Arabia		PRISMA from COMSOFT	OLDI V4.2 FMTP 2.0 AIDC xx	11	- None - AIDC Connected between Riyadh and Jeddah	✓	✓	✓		✓	✓	No	AIDC for internal and OLDI for neighboring units requests
Sudan	Mr. Abdulmonem Alshkaieh	TopSky	OLDI 4.3 AIDC 2.0	5	2	✓	✓	✓	✓	✓	✓	No	Both AIDC and OLDI to cater to neighboring units requests
Syria				5	none								
UAE	Mr. Hamad Al Belushi hbelushi@szc.gcaa.ae	PRISMA from COMSOFT	OLDI V4.2 FMTP 2.0	10	-3 two-way integrated OLDI connections -2 two-way standalone OLDI -1 one-way Standalone OLDI connection Total 6 OLDI connections		✓		✓		✓	No	OLDI already in use with 6 partners and all neighboring ATSU's are OLDI capable
Yemen				3	none								



International Civil Aviation Organization

AIDC/OLDI Seminar

(Cairo, Egypt 3-5 March 2014)

LIST OF PARTICIPANTS

NAME	TITLE & ADDRESS
<u>STATES</u>	
BAHRAIN Mr. Isa Alkhamiri	Head of Air Traffic Training Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: +973 17321029 Tel: +973 17321073 Mobile: +973 36447688 Email: ialkhamiri@caa.gov.bh
Mr. Mohamed Ali Saleh	Head, Aeronautical Communication Civil Aviation Affairs P.O.Box 586 KINGDOM OF BAHRAIN Fax: +973 17329966 Tel: +973 17321187 Mobile: +973 39622202 Email: masaleh@caa.gov.bh
Mr. Osama Mohamed Noor	Air Traffic Control Supervisor Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: +973 17321029 Tel: +973 17329953 Mobile: +973 3331 3112 Email: bahrainatc@hotmail.com o.saleh@caa.gov.bh

NAME	TITLE & ADDRESS
Mr. Stewart Hunt	Project Manager ATC Bahrain Air Traffic Control Serco-IAL Limited P.O. Box 144 - Manama KINGDOM OF BAHRAIN Fax: +973 17333574 Tel: +973 17329958 Mobile: +973 38385122 Email: shunt@caa.gov.bh twomocows@hotmail.com
EGYPT Mr. Ahmed Abdel Wahab Mohamed	CNS Inspector Engineer Ministry of Civil Aviation Cairo Airport Road Cairo - EGYPT Fax: 202 2226 8332 Tel: 202 2268 1347 Mobile: 2011 44007328 Email: ahmedabdelwahab02@yahoo.com
Mr. Ahmed Abdul Rasool Mohamed	General Directorate of Automation Systems National Air Navigation Services Company Cairo Airport Road Cairo-EGYPT Fax: 202 2267 5960 Tel: 202 2265 7950 Mobile: 20106 241692 Email: raad_mourad@yahoo.com
Mr. Ahmed Gad Elrab Mahmoud	CNS Inspector Engineer Egyptian Civil Aviation Authority Cairo International Airport Road Cairo - EGYPT Tel: 202 24474 6932 Mobile: 01111730650 Email: e_ahmedgad@yahoo.com
Eng. Mohamed Ahmed Mohamed Sultan	AIM Department National Air Navigation Services Company Egyptian Civil Aviation Authority Cairo Airport Road Cairo - Egypt Fax: Tel: Mobile: 20100 5197189 Email: mohamed.a.sultan@gmail.com

NAME	TITLE & ADDRESS
Mr. Hatem Farag Hassan Mohamed	Air Traffic Controller National Air Navigation Services Company Egyptian Civil Aviation Authority Cairo Airport Road Cairo - Egypt Tel: 202 22653171 Mobile: 01001626568 Email: hatemf75@gmail.com
Mr. Hesham Atef Ibrahim Abu Lymoun	Senior Inspector of Air Navigation Services Civil Aviation Authority Cairo International Airport Road Cairo - EGYPT Fax: 202 22680627 Tel: 202 22690057 Ext 6691 Mobile: 201001626563 Email: lymoun@gmail.com
Eng. Hisham Mohamed Ismail	Projects follow-up Manager and Senior ATC Engineer National Air Navigation Services Company (NANSC) Cairo Airport Road Cairo - EGYPT Fax: 202 2268 5293 Tel: 202 2265 7947 Mobile: 0100 169 0290 Email: ahsn_ism@hotmail.com
Mr. Khaled Mohamed Abdel Razek Omran	Air Traffic Controller National Air Navigation Services Company (NANSC) Cairo Airport Road Cairo - EGYPT Mobile: 0100 8079419 Email: khalidelazizy@yahoo.com
Mr. Khaled Mostafa Kamal	Area Control Supervisor National Air Navigation Services Company (NANSC) Cairo Airport Road Cairo - EGYPT Mobile: 01227333772 Email: khldmz@msn.com

NAME	TITLE & ADDRESS
Eng. Mohamed Ali Mahmoud El Shouri	Computer Engineer National Air Navigation Services Company (NANSC) Cairo Airport Road Cairo - EGYPT Fax: 202 22685293 Tel: 202 22657947 Mobile: 01001872005 Email: m a m al shona@yahoo.com
Eng. Mohamed El Sayed Ahmed Abdel Aziz	Application Supervisor approach Cairo International Airport Control Tower Cairo Airport Road Cairo - EGYPT Tel: 202 22963750 Mobile: 01001613438 Email: abdalaziz.muhammed@yahoo.com
Mr. Nasser Mohamed Hussein Ahmed	Air Traffic Controller (AIS Sector) National Air Navigation Services Company Cairo Air Navigation Centre (CANC) Cairo Airport Road, Cairo - EGYPT Fax: 202 2267 8882 Tel: 202 2268 5471 Mobile: 20-14 685 5014 Email: naser_mohamed1133@yahoo.com
Mr. Abdel Latef Abdel Azem Al Malky	AIS National Air Navigation Services Company Cairo Air Navigation Centre (CANC) Cairo Airport Road, Cairo - EGYPT Fax: 202 2267 8882 Mobile: 01009023035 Email: rlmslky70@hotmail.com
JORDAN Mr. Mohammad Mousa Al Rousan	Radar Chief Civil Aviation Regulatory Commission P.O. Box 7547 Amman – JORDAN Fax: 962-6 4451677 Tel: 962-6 4451665 Mobile: 962 79 9839194 Email: m.rousan@carc.gov.jo mmkrousan@hotmail.com

NAME	TITLE & ADDRESS
Mr. Ibrahim Mahmoud Faraj	Communication Engineer Civil Aviation Regulatory Commission P.O. Box 7547 Amman 11110– JORDAN Fax: 962 6 4881534 Tel: 962 60 4451665 Mobile: 962 795057006 Email: ibfaraj@hotmail.com i.faraj@carc.gov.jo
KUWAIT Mr. Ahmad B. Farhan	Supervisor Assistant Communication Directorate General of Civil Aviation Kuwait International Airport P.O. Box 17 Safat 13001 State of KUWAIT Mobile: 975 7644425 Email: AFTN@kuwaitairport.com.kw
Mr. Naser Al-Hubail	Ahead of AFTN Section Directorate General of Civil Aviation Kuwait International Airport P.O.Box 17 Safat 13001 13001 State of KUWAIT Fax: +965-2 473 2530 Tel: +965-2 472 1279 Mobile: +965 96641145 Email: aftn@kuwait-airport.com.kw
Eng. Adel Y. Al-Ameeri	Kuwait International Airport Navigational Equipments Dept. Directorate General of Civil Aviation Kuwait International Airport P.O.Box 17 Safat 13001 13001 State of KUWAIT Fax: +965 24710099 Tel: +965 161 Ext. 2255 Mobile: +965 99677784 Email: adle.alamiri@gmail.com

NAME	TITLE & ADDRESS
OMAN Mr. Ali Hassan Mohammed Al Ajmi	Automation System Supervisor Muscat International Airport P.O.Box 178 Code 111 SULTANATE OF OMAN Fax: +968 24519330 Tel: +968 245198448 Mobile: +968 99416280 Email: alihassan@caa.gov.om
Eng. Nasser Al Sulaimani	Chief of ATM Systems Public Authority for Civil Aviation P.O.Box 259 SEEB CPO SULTANATE OF OMAN Tel: +968 24519777 Mobile: +968 99441443 Email: nassers@caa.gov.om
QATAR Mr. Ali Mohammad Alhail	Head of Radar Engineer Unit Civil Aviation Authority P.O.Box 60730 Doha – QATAR Fax: +974 44622620 Tel: +974 44656599 Mobile: +974 55535513 Email: ali.alhail@caa.gov.qa
SAUDI ARABIA Mr. Terad Ali J. Alghamedi	ATM/ANS General Authority of Civil Aviation King Abdul Aziz International Airport SAUDI ARABIA Fax: Tel: +966 126717717/126855007 Mobile: +966 566555707 Email: teradali@hotmail.com tajalghamdi@gaca.gov.sa
Mr. Khaled M. Khady	Software Engineer General Authority of Civil Aviation King Abdul Aziz International Airport SAUDI ARABIA Mobile: +966 555580714 Email: kmk-pca@yahoo.com

NAME	TITLE & ADDRESS
<p>SUDAN Mr. Eltahir Abdellatif Hassan</p>	<p>ATM System Administrator Civil Aviation Authority Khartoum Airport Khartoum - SUDAN Fax: +249 183784925 Tel: +249 183784925 Mobile: +249 123499352 Email: eltahir5@yahoo.com eltahirhassan1@gmail.com</p>
<p>Mr. Mohamed Zein Elabdin Osman</p>	<p>ATM Khartoum ATC Civil Aviation Authority Khartoum Airport Khartoum - SUDAN Tel: +249 183784925 Mobile: +249 123499263 Email: mohdzein965@yahoo.com</p>
<p>UNITED ARAB EMIRATES Mr. Hamad Rashid Al Belushi</p>	<p>Head of ANSP Research and Dataset General Civil Aviation Authority P.O.Box 666 Abu Dhabi UNITED ARAB EMIRATES Fax: +971-2 599 6836 Tel: +971-2 599 6633 Mobile: +971-50 616 4350 Email: hbelushi@szc.gcaa.ae</p>
<p>ORGANIZATION</p>	
<p>INDRA Mr. Pablo Fernandez Izquierdo</p>	<p>International ATM Programs CTRA. Loeches 9 Torreson De Ardoz INDRA - SPAIN Tel: +34 916271159 Mobile: +34 639783579 Email: pfizquierdo@indra.es</p>

NAME	TITLE & ADDRESS
THALES Mr. Mohamed Hassan Hussein	Branch Director Thales Air Systems El Shahid Sayed Zakaria Gad St., Sq. 1216, Bldg. 5, Flat 203 Sheraton Area – Heliopolis – Cairo EGYPT Fax: 202 22672254 Tel: 202 22679080 Mobile: 01222221297 Email: mohamed.canc@hotmail.com thairsys@link.net

-END-