ARN TF/5-REPORT



INTERNATIONAL CIVIL AVIATION ORGANIZATION

THE MIDDLE EAST AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL GROUP (MIDANPIRG)

REPORT OF THE FIFTH MEETING OF AIR TRAFFIC SERVICES ROUTE NETWORK TASK FORCE

ARN TF/5

(Amman, Jordan, 5 – 7 February 2012)

The views expressed in this Report should be taken as those of the MIDANPIRG ARN Task-Force and not of the Organization. This Report will, however, be submitted to the MIDANPIRG and any formal action taken will be published in due course as a Supplement to the Report.

Approved by the Meeting and published by authority of the Secretary General The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontier or boundaries.

TABLE OF CONTENTS

PART I - HISTORY OF THE MEETING

1.	Place and Duration	1
2.	Opening	1
3.	Attendance	1
4.	Officers and Secretariat	1
5.	Language	1
6.	Agenda	2
7.	Conclusions and Decisions - Definition	2/3

PART II - REPORT ON AGENDA ITEMS

Report on Agenda Item 1	1-1
Report on Agenda Item 2 Appendices 2A	2-1
Report on Agenda Item 3 Appendices 3A – 3E	
Report on Agenda Item 4 Appendices 4A – 4C	
Report on Agenda Item 5 Appendix 5A	
Report on Agenda Item 6 Appendix 6A	6-1
Report on Agenda Item 7 Appendix 7A	7-1
Report on Agenda Item 8	8-1
List of Participants	Attachment A

PART I – HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The fifth meeting of ARN TF/5 was held at the Kempenski Hotel, Amman, Jordan, 5-7 February 2012.

2. **OPENING**

2.1 The Meeting was opened by Captain. Diab Abu Zaid, Air Navigation Services Commissioner-CARC Jordan, who welcomed all participants to the Fifth ATS Route Network Task Force (ARN TF/5) and wished them a pleasant stay in Jordan. He thanked ICAO for its efforts in fostering the Fifth ATS Route Network Task Force and arranging this meeting in Jordan and reiterated Jordan's commitment to support the ICAO MID Regional Office and MIDANPIRG and its subsidiary bodies activities.

2.2 Captain. Diab Abu Zaid mentioned that the MID Region is becoming one of the fastest growing aviation markets in the world, making its airspace one of the busiest and most complex. The increase in air traffic, appears to be a challenge for air traffic controllers, and thus for the ARN Task Force. He added that, ATC should cope with the increasing challenges, resolving the region's airspace safety, security, capacity, efficiency and environmental challenges. Captain. Diab Abu Zaid, further highlighted that challenges poses greater needs for maintaining the continuous improvement of the MID Air Navigation Plan, facilitating the implementation of safety standards of air navigation systems and services, he also encouraged States to work together in a cooperative manner and bring along with them their Military counter parts to these meetings especially the ARN TF meetings in which the coordination of ATS Route requirements between Civil and Military can be met in a harmonized manner. In conclusion he indicated that the outcome of the ARN TF/5 meeting will contribute to the seamless development of CNS/ATM in the region and sustain the advancement of a more coherent, efficient, harmonized and safer ATM services.

2.3 Mr. Jehad Faqir, ICAO Deputy Regional Director, Middle East Office, welcomed all the participants to Amman. He expressed ICAO's sincere gratitude and appreciation to the, the Civil Aviation Regulatory Commission (CARC), Jordan and especially to Capt. Mohammed Amin M. Al-Quran, Chief Commissioner and Chief Executive Officer, CARC and also Capt. Diab H. Abu Zaid, Air Navigation Services Commissioner for hosting this important meeting in Amman and for the generous hospitality and for all the arrangements made for the ICAO staff and all participants. He pointed out that CARC Jordan had hosted also the MSG/2 meeting in March 2010, MIDANPIRG/12 meeting in Amman in October 2010; and the ARN TF/4 meeting last May 2011 and that Jordan has always been supporting the ICAO MID Regional Office and MIDANPIRG activities and played an important and positive role in the improvement of Civil Aviation in the MID Region.

2.4 Mr. Faqir recalled that the role of the Task Force was twofold, to update the existing ATS route network and to undertake a complete revision of the MID ATS route catalogue, the latter being the primary objective for the establishment of the Task Force. He acknowledged the valuable contributions from the airspace users and from States in the ARN TF activities.

ARN TF/5 History of the Meeting

3. ATTENDANCE

3.1 The meeting was attended by a total of Twenty Six (26) participants, including experts from seven (7) States (Bahrain, Egypt, Iran, Jordan, Oman, Saudi Arabia and United Arab Emirates) and (4) four International Organizations/Industries (CANSO, IACA, IATA and MIDRMA). The list of participants is at the **Attachment A** to the Report.

4. OFFICERS AND SECRETARIAT

4.1 The meeting was chaired by Mr. Nayef Al- Marshoud, Director ATM Civil Aviation Regulatory Commission (CARC), Jordan. Mr. Saud Al- Adhoobi, Regional Officer ATM/SAR was the Secretary of the meeting, and Mr. Jehad Faqir, Deputy Regional Director MID Regional Office supported the meeting.

5. LANGUAGE

5.1 Discussions were conducted in English and documentation was issued in English.

6. AGENDA

6.1 The following Agenda was adopted:

- Agenda Item 1:Adoption of the Provisional AgendaAgenda Item 2:Follow-up on MIDANPIRG and other meetings Conclusions and
Decisions relevant to ATS Route NetworkAgenda Item 3:Review ATS Route NetworkAgenda Item 4:Amendments to the ATS Route Network CatalogueAgenda Item 5:Review/update of Regional Activities carried out by CANSOAgenda Item 6:Review/update the deficiencies in the ATS Routes Network
- Agenda Item 7: Future Work Programme
- Agenda Item 8: Any other business

7. CONCLUSIONS AND DECISIONS – DEFINITION

7.1 All MIDANPIRG Sub-Groups and Task Forces record their actions in the form of Conclusions and Decisions with the following significance:

a) **Conclusions** deal with the 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

ARN TF/5 History of the Meeting

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

8. LIST OF CONCLUSIONS AND DECISIONS

DRAFT CONCLUSION 5/1:	PROPOSAL FOR AMENDMENT TO THE MID BASIC ANP ATS-1 TABLE
DRAFT CONCLUSION 5/2:	IMPROVEMENT OF THE ATS ROUTE STRUCTURE IN THE MID REGION

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA

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 AND OTHER MEETINGS CONCLUSIONS AND DECISIONS RELEVANT TO ATS ROUTE NETWORK

2.1 The meeting noted the status of relevant MIDANPIRG/12 and DGCA – MID/1 Conclusions and Decisions related to the work programme of the ARN TF and the follow-up actions taken by States, the secretariat and other parties concerned as at **Appendix 2A** to the Report on Agenda Item 2.

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

ARN TF/5 Appendix 2A to the Report on Agenda Item 2

MIDANPIRG and other meetings Conclusions and Decisions pertinent to the work of the ARN Task Force for consideration by the ARN TF/4 meeting

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC. 12/9: RNAV 5 IMPLEMENTATION IN THE MID REGION					Actioned
 That, States that have not yet done so, be urged to: a) update their AIP to change RNP 5 to RNAV 5; and b) take necessary measures to implement RNAV 5 area in the level band FL 160 - FL460 (inclusive). 	Implementation of the Conclusion	ICAO States	State Letter update AIP Implement RNAV 5 (FL 160-FL460)	January 2011	SL Ref.: AN 6/29 – 10/432 dated 16 December 2010 AN 6/29 – 11/141 7 June 2011 (re-iterated)
CONC. 12/10: ALLOCATION OF FIVE-LETTER-NAME CODES IN THE MID REGION					Actioned
 That, prior to 31 March 2011, States that have not yet done so: assign ICARD ATS Route Planners, in order to make use of the ICARD system and improve the process of allocation of 5LNCs; take necessary action in order for their designated ICARD Route Planner(s) to register to the ICAO ICARD 5LNC web-based System; review their list of allocated 5LNCs and identify the non-used, duplicate and non-ICAO 5LNCs, and inform the ICAO MID Regional Office accordingly for necessary action; release those allocated 5LNCs which were replaced and/or are no longer used; and update the ICARD database by adding the missing information (missing latitude and longitude coordinates, etc). 	Implement the Conclusion	ICAO States	State Letter Assign ATS Route Planner. Register to ICAO ICARD Update ICARD	January 2011 March 2011	SL Ref.: AN 8/15.2 – 10/444 dated 22 December 2010 (To be closed)

ARN TF/5- REPORT Appendix 2A

CONCLUSIONS AND DECISIONS	Follow-up	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC. 12/25: CIVIL/MILITARY COOPERATION					Actioned
That, in order to facilitate effective civil/military cooperation and joint use of airspace in accordance with ICAO provisions, and in support of the ICAO's vision for an integrated, harmonized and globally interoperable air traffic management system as laid out in the ATM Operational Concept and in the Global Air Navigation Plan, MID States that have not yet done so, be urged to:	Follow-up Conclusion Implementation	States	Input from States Involvement of military in civil airspace management processes	November 2011 Ongoing	SL AN6/13-11/137 Dated 2 June 2011 (Re-iterated)
a) manage the airspace in a flexible manner with an equitable balance between civil and military users through strategic coordination and dynamic interaction, in order to open up segregated airspace when it is not being used for its originally- intended purpose and allow for better airspace management and access for all users according to their needs;			Civil/military coordination and cooperation	Ongoing	
b) develop necessary institutional arrangements to foster civil/military cooperation; and					
c) take steps and arrange as necessary for the Military authorities to be:					
 fully involved in the airspace planning and management process; 					
ii) aware of the new developments in civil aviation; and					
iii) involved in national, regional and international aviation meetings, workshops, seminars and training sessions, as appropriate.					
CONC. 12/26: UNCOORDINATED FLIGHTS OVER THE RED SEA AREA					Completed
That, the ICAO MID Regional Office process a Proposal for Amendment to the Supplementary Procedures (Doc 7030) in order to include the procedures to be followed by all civil uncoordinated flights and, to the extent practicable, by military aircraft operating over the Red Sea Area, as shown at Appendix 5.2L to the Report on Agenda Item 5.2	Implement the Conclusion	ICAO	Amendment of Doc 7030	January 2011	

ARN TF/5- REPORT APPENDIX 2A

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC. 12/27: IMPROVEMENT OF THE ADHERENCE TO THE AIRAC SYSTEM					Actioned
 That, in order to improve the adherence to the AIRAC System, States, that have not yet done so, be urged to: a) fully comply with the AIRAC procedures, in accordance with the provisions of Annex 15 and the MID Basic ANP Chapter VIII; a) organize awareness campaigns involving AIS and all technical Departments providing the raw data to the AIS for promulgation; and c) arrange for the signature of Service Level Agreements (SLA) between AIS and the data originators. 	Implement the Conclusion	ICAO States	State Letter Feedback from States	February 2011 June 2011	SL dated 12 April 2011 (To be closed)
CONC. 12/47: MID REGION PERFORMANCE METRICS					Ongoing
 That: a) the following MID Region Metrics be adopted for performance monitoring of the air navigation systems: MID Metric 1: Number of accidents per 1,000 000 departures; MID Metric 2: Percentage of certified international aerodromes; MID Metric 3: Number of Runway incursions and excursions per year; MID Metric 4: Number of States reporting necessary data to the MIDRMA on regular basis and in a timely manner; MID Metric 5: The overall collision risk in MID RVSM airspace; MID Metric 6: Percentage of air navigation deficiencies priority "U" eliminated; MID Metric 7: Percentage of instrument Runway ends with RNP/RNAV approach procedure; and 	Monitor performance of ANS using the endorsed metrics	MIDANPIRG & subsidiary bodies	Develop performance targets	2011	SL Ref.: AN 7/26.1-11/121 dated 24 May 2011

ARN TF/5- REPORT Appendix 2A

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
MID Metric 8: Percentage of en-route PBN routes implemented in accordance with the regional PBN plan.					
b) the MIDANPIRG subsidiary bodies monitor the Metrics related to their work programmes; develop associated performance targets and provide feed-back to MIDANPIRG.					
CONC. 12/48: DATA COLLECTION FOR MID REGION PERFORMANCE METRICS					Ongoing
That, States be invited to:	Implement the	ICAO	State Letter	January 2011	SL Ref.: AN
a) incorporate the agreed MID Region Performance Metrics into their National performance monitoring process;	Conclusion	States	Include metrics into national performance		7/26.1-11/121 dated 24 May 2011
 b) collect and process relevant data necessary for performance monitoring of the air navigation systems to support the regional Metrics adopted by MIDANPIRG; and 			monitoring Submit data to ICAO		
c) submit this data to the ICAO MID Regional Office on a regular basis.					
DEC. 12/49: REVIEW OF THE MID AIR NAVIGATION PLAN (ANP)					Ongoing
That, in support to ICAO efforts to improve regional ANPs, the MIDANPIRG subsidiary bodies:	Implement the Decision	ICAO States	New structure, format & content of	2012	
a) carry out a complete review of the MID Basic ANP and FASID parts related to their Terms of Reference (TOR) and Work Programme;		Users	ANP/FASID		
b) develop revised draft structure and content of the Basic ANP in order to reconcile it with the ATM Operational Concept, the Global Plan provisions and the performance based approach;					
c) identify the need for and development of those FASID Tables necessary to support the implementation of a performance-based global air navigation systems; and					
d) report progress to MIDANPIRG/13.					

ARN TF/5- REPORT APPENDIX 2A

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE initiated by	DELIVERABLE	TARGET DATE	REMARKS
Conc. 12/61: Implementation of Continuous Descent Operations					Actioned
That, recognizing the efficiency and environmental benefits of Continuous Descent Operations (CDO), and the need to harmonize these operations in the interest of safety, MID States be encouraged to include implementation of CDO as part of their PBN implementation plans and to implement CDO in accordance with the ICAO CDO Manual Doc 9931.	Follow up development in MID Region/States	States	Progressive introduction of CDO operations in TMAs	2012	SL dated 16 February 2011
CONC. 12/63: ADOPTION OF GOLD					
That, MID States be urged to:	Implement the	MIDANPIRG	Adopted GOLD	October 2010	
a) adopt Global Operational Data Link Document (GOLD) for data link operations; and	Conclusion	States			
b) contribute in future amendments to the GOLD as required.					
CONC.12/75: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION					Actioned
That, MID States be urged to:					SL Def. ANO/2
a) review their respective lists of identified deficiencies, define their root causes and forward an action plan for rectification of outstanding deficiencies to the ICAO MID Regional Office prior to 31 March 2011;	Implement the Conclusion	ICAO States	State Letter Feedback from States	January 2011	SL Ref.: AN2/2 – 11/123 dated 25 May 2011
 b) use the online facility offered by the ICAO MID Air Navigation Deficiency Database (MANDD) for submitting online requests for addition, update, and elimination of air navigation deficiencies; 					
c) accord high priority to eliminate all air navigation deficiencies with emphasis on those with priority "U"; in particular by allocating the necessary budget to ensure that their Civil Aviation Authorities have and retain a sufficient number of qualified technical personnel, who are provided with appropriate initial, on-the-job and recurrent training; and					

ARN TF/5- REPORT Appendix 2A

CONCLUSIONS AND DECISIONS	Follow-up	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
 d) seek support from regional and international organizations (i.e. ACAC, GCC, etc.) for the elimination of identified air navigation deficiencies. 					
CONC. 12/77: ATS SAFETY MANAGEMENT					Actioned
 That, MID States that have not yet done so, be urged to: a) establish a State Safety Programme (SSP) and ensure the implementation of Safety Management Systems (SMS) by their ATS service providers, in accordance with Annex 11 provisions; b) promulgate a national safety legislative framework and specific regulations in compliance with international and national standards that define how the State will conduct the management of safety, including the collection and protection of safety information and improvement of accident prevention, in compliance with relevant provisions contained at Chapter 2 of Annex 11 and Chapter 8 of Annex 13; 	The ATM/SAR/AIS SG to follow up the implementation of the Conclusion	ICAO States	State Letter Feedback from States	February 2011	SL dated 2 June 2011 (Re-iterated)
c) share safety information including information on ATS incidents and accidents; and					
 d) take advantage of the ICAO guidance material related to safety management as well as the training events offered by ICAO (SMS, SSP and ECCAIRS training courses seminars and workshops). 					

ARN TF/5- REPORT APPENDIX 2A

CONCLUSIONS AND DECISIONS	Follow-up	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
DGCA-MID/1					
CONC. 1/2: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION That, States:					
 accord high priority to the elimination of air navigation deficiencies; in particular by allocating the necessary budget to ensure that their Civil Aviation Authorities have and retain a sufficient number of qualified technical personnel, and provide appropriate initial, on-the-job and recurrent training; 					
b) work cooperatively towards the elimination of common deficiencies; and					
c) consider the use of the Regional Safety Oversight Organizations (RSOOs) as an efficient mechanism for, inter-alia, the provision of appropriate training to technical staff and elimination of common deficiencies.					
CONC. 1/3: MIDDLE EAST REGIONAL AIRSPACE REVIEW (MIDRAR) That,					
a) States committed to the UAE declaration are encouraged to:					
I. support CANSO efforts to carry out a Middle East Regional Airspace Review (MIDRAR), in close coordination with ICAO and all concerned parties/stakeholders;					
II. support the creation of the MIDRAR Team; and					
III. provide necessary information, data and other resources, including Specialist input, as required					
 b) CANSO or one of its Members present the outcome of the MIDRAR to the appropriate MIDANPIRG subsidiary bodies (ARN TF and ATM/SAR/AIS SG) to initiate necessary amendments to the Air Navigation Plan(s), as appropriate. 					

ARN TF/5- REPORT Appendix 2A

2A-8

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONC. 1/6: CONTINGENCY PLANS					
That, for the interest of ensuring safety and continuity of civil aviation, MID States:					
a) accord high priority and secure necessary resources to update, complete and promulgate their contingency plans; and					
b) send copies of their contingency plans (even those which are still in draft format) to the ICAO MID Regional Office as soon as possible.					
CONC. 1/8: REGIONAL STRATEGY FOR COLLECTION OF SAFETY DATA					
That, recognizing the importance of safety data for SMS and SSP programmes, MID States to implement ECCAIRS for collecting safety data; and attend ECCAIRS training courses organized by the ICAO MID Regional Office.					
CONC. 1/12: ESTABLISHMENT OF HIGH LEVEL ENVIRONMENTAL REGIONAL GROUP					
That, in order to address the identified environmental concerns/challenges, States cooperate towards establishment of a High Level Environmental Regional Group.					

REPORT ON AGENDA ITEM 3: REVIEW ATS ROUTE NETWORK

3.1 The meeting recalled that MIDANPIRG/12 recognized the need to harmonize the implementation of RNAV 5 in the MID Region. Accordingly, MIDANPIRG/12, through Conclusion 12/9, urged States, that have not yet done so to take necessary measures to implement RNAV 5 area in the level band FL 160 - FL460. Accordingly ICAO MID Regional Office urged MID States to take necessary action and promulgate changes to their AIPs by the AIRAC date 7 April 2011.

3.2 The meeting noted that Bahrain, Egypt, Kuwait, Jordan, Oman and UAE had implemented the changes to their AIPs. However, a number of States have not updated their AIPs to change RNP 5 to RNAV 5. The RNAV 5 area in the MID Region is still being implemented with different base Flight Levels (FL150, FL195, FL245, FL280). Accordingly, the meeting re-iterated the MIDANPIRG 12 Conclusion 12/9:

CONCLUSION 12/9: RNAV 5 IMPLEMENTATION IN THE MID REGION

That, States that have not yet done so, be urged to:

- a) update their AIP to change RNP 5 to RNAV 5; and
- *b)* take necessary measures to implement RNAV 5 area in the level band FL 160 FL460 (inclusive).

3.3 The meeting noted that there are a number of States that are not complying with the established procedures for the amendment of the ATS route Network, including the compliance with the AIRAC procedures. The meeting re-iterated the statement of ATM/SAR/AIS SG/12 meeting that urge those States to adhere to the established ICAO procedures for amendments and establishment of ATS routes that form part of the Regional ATS route network.

3.4 The meeting reviewed the outcome of the First meeting of Baghdad FIR RVSM Implementation Working Group (BFRI WG/1) and the proposal submitted by Iran. In this respect Bahrain presented solutions to the proposals that require establishment of two parallel Air Ways and two Boundary points parallel to Positions ALSER and MIDSI. This solution needs further discussion and agreement by both States. The results of discussions are summarized as at **Appendix 3A** to the Report on Agenda Item 3.

3.5 Based on the above a side meeting was convened between Bahrain and Iran to discuss the solutions presented by Bahrain for the establishment of parallel Air Ways and two Boundary points parallel to Positions ALSER and MIDSI. The outcome of the meeting is as follows;

- a) Both parties agreed to implement:
 - i) two new uni- directional ATS routes one Northbound, and the other Southbound;
 - ii) implement parallel ATS routes East/Westbound with two boundary points parallel to position ALSER and MIDSI; and
- b) request ATS route designators from the ICAO MID Regional Office and the addition of the ATS routes to the MID ANP Table ATS 1 ATS Routes.

3.6 A side meeting was convened between UAE, Iran and IATA to discuss A/UA418 and P/UP574 **KUMUN/PAPAR**, to resume operation via PAPAR using the old agreed procedures. The outcome of the meeting is as follows:

- a) Parties did not reach any agreement with regards to **PAPAR-KUMUN** issues due to military and political issues;
- b) a suggestion was made to implement two airway over **DARAX** to increase capacity;
- c) New way point on FIR boundary between Abu Musa and **DARAX** will be established. This new way point will be assessed for usability by the Etihad Airways. Only after this has been completed, the way point will be considered and studied by UAE.
- d) a direct ATS route to **DASDO** in the OIIX FIR was discussed. It was agreed that a direct route is operationally not feasible. Further discussions on possible alternatives require the involvement of Bahrain. Discussions will be carried out independently; and
- e) a coordination meeting will be arranged in due time pending the management approval for para b) or c) above.

3.7 With regards to ATS Route L/UL315 recently established from **CAIRO – HURGADA** – **GIBAL**, a side meeting between Egypt and Saudi Arabia took place to carry out further coordination to assess reversing the direction of the route segment **HURGADA GIBAL JDW** to allow Eastbound flights. Both States agreed to study the proposal pending final agreement by June 2012.

3.8 The meeting recognised the need for a complete review of ATS Route network and FLAS in the Empty Quarters in order to increase efficiency in the ATS route network considering the previous request from IATA. IATA is to submit their requirements by the next ARN TF meeting along with supporting traffic data.

3.9 The meeting further considered the proposals made by IATA for the re-designation and the extension of domestic ATS route CVO W8/W601 to **ATMUL** and the extension of the route to **ASKOL** including ATS Route Segment from point **ATMUL** to **OBD** in the Khartoum FIR.

3.10 Egypt agreed in principal to the re-designation of domestic ATS route W8 and W601 to an RNAV route designator and will confirm agreement after consultation with management. Further coordination for the segments falling in Khartoum FIR would be required with ICAO Nairobi Office.

3.11 The meeting noted that ATS Route A/UA 411 is split into two (2) Segments in the Cairo FIR. The First Segment Starts from Rabat (Morocco) and passes through Algiers, Tunis, Tripoli FIRS and stops at SIDI Barrani (BRN) in Cairo FIR; the second Segment Start from Cairo (CVO) Jeddah and stops at SAA in Sana'a FIR. The meeting agreed that Egypt, Saudi Arabia and Sana'a change the ATS route designator A/UA411 to the proposed ATS Designator L/UL677, the designation will avoid confusion to operators, increase safety and harmonize the ATS route.

3.12 The meeting reviewed several proposals that were received from States, EUROCONTROL and IATA. Accordingly, the meeting agreed to process the agreed proposals and included them in **Appendix 3B** to the Report on Agenda Item 3.

3.13 The meeting noted that ATS Route **P/UP 559** has been established from **TRF** (Jeddah FIR) extending to **VUXOR** (Bahrain Emirates FIR). However in the MID ANP the above ATS Route has

been planned to start from (LCA KUKLA KAD *Note 4 (OS) DAM * Notes 3 (OS,OJ) TRF all the way to fix VUXOR. The remaining segment of the route that passes through Jordan, Syria and Lebanon is not implemented and will take a long time to implement. The concerned States were included in the list of deficiencies for the above route. The meeting agreed to amend the MID ANP by deleting the segment (LCA, KUKLA, KAD, DAM and TRF) and add it to the ATS Route Catalogue. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 5/1: PROPOSAL FOR AMENDMENT TO THE MID BASIC ANP ATS-1 TABLE

That, the ICAO MID Regional Office issues a proposal for amendment to the MID Basic ANP Doc 9708 in order to update the ATS-1 Table as at Appendix 3B to the Report on Agenda Item 3.

3.14 In relation to ATS Route structure in the MID Region, the DGCA-MID/1 meeting recognized the need for rationalization of the ATS route in the Region and that a radical review of the ATS route network had to be carried out based on the definition of City Pairs, Flexible Use of Airspace (FUA) and Performance Based Navigation (PBN) concepts to address Airspace capacity limitation; as the current constraints limit capacity and force inefficient routings. In addition, civil and military airspace sharing agreements are needed to better balance airspace distribution.

3.15 The meeting recalled the DGCA-MID/1 Conclusion 1/3 related to the Middle East Regional Airspace Review (MIDRAR) lead by CANSO, as well as the follow-up action taken by the ARN TF/4 meeting. In this respect, the meeting noted that the ARN TF Chairperson will act as a focal point for MIDRAR.

3.16 Based on the above, the meeting urged MID States to identify ATS routes within their airspace that are not economically feasible and to coordinate with their appropriate authorities to agree to align and shorten the ATS routes in order to enhance Safety, efficiency and increase environmental sustainability. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 5/2: IMPROVEMENT OF THE ATS ROUTE STRUCTURE IN THE MID REGION

That, as a first step towards the rationalization of the ATS route network in the MID Region;

- *a) MID States be urged to;*
 - *i) identify those ATS Routes that are not economically structured within their airspaces;*
 - *ii)* coordinate and agree with appropriate authorities on the priority of action to replace the identified routes with more economical routes based on the definition of City Pairs, the PBN and FUA concepts;
- b) Users to;
 - *i) identify those ATS Routes that are not economically structured in the MID Region;*
 - *ii)* provide priority of action; and
- c) *MID States and Users; provide feedback to the ARN TF/6 meeting.*

3.17 The meeting was apprised to the request from Kuwait related to the available Flight levels for the westbound traffic in Kuwait FIR, especially during the Hajj season, Bahrain and Saudi Arabia agreed to allocate FL300 for use by Kuwait on temporary basis during Hajj season. Furthermore, Iran and Kuwait agreed that the traffic from Iran should be transferred at FL340 (i.e. FL360 and FL380 are not to be used for the transfer of traffic to Kuwait). The meeting could not reach a solution due to the absence of Kuwait and agreed to differ this issue for future meetings.

3.18 The meeting noted the proposal presented by Jordan calling for the split of departure routes from arrivals between Amman and Baghdad FIRs, due to the complexity of handling the arrivals and departures via ATS Route L200 where many constraints impact the traffic flow in that route such as difficulties in communication, Lack of Direct speech lines, Proximity of FIX PASIP to Damascus FIR boundary and exchange of flight plan data.

3.19 In order to enhance safety and facilitate traffic flow between the two FIRs, and alleviate the difficulties that Amman is facing at the FIR boundary. Jordan proposed to use and implement ATS Route R652 as a departure route from Amman to Baghdad and ATS Route L200 as an Arrival route from Baghdad to Amman.

3.20 MIDRMA indicated that it has no reservation on Jordan's proposal as long as this route is used only for departures. Further discussion would be required between Jordan, Iraq and Saudi Arabia to finalize the proposal.

3.21 The meeting recalled that one of the challenges contributing to the low pace in implementation of contingency plans was the process of consultation and agreements with adjacent FIRs/States. However, it was noted that progress has been achieved in this regard, since a number of States have signed contingency planning agreements with adjacent FIRs/States, and some agreements are pending signatures.

3.22 The meeting noted that the DGCA-MID/1 meeting noted with concern that the development and promulgation of contingency plans remains one of the long standing deficiencies in the MID Region. Taking into consideration the current events in the MID Region and for ensuring safety and continuity of civil aviation, the DGCA-MID/1 meeting recognized that it's becoming more imperative and pressing that all MID States take necessary measures to sign the pending Contingency agreements with adjacent FIRs/States and expedite the promulgation of their contingency plans. Accordingly, the DGCA-MID/1 meeting agreed to Conclusion: DGCA-MID/1 CONCLUSION 1/6 - CONTINGENCY PLANS.

3.23 Based on the above, the meeting was presented with a draft MID Regional Contingency Plan, including the Contingency Routing Scheme for Asia/Middle East/Europe (**CRAME**) as at **Appendix 3C** to the Report on Agenda Item 3 and noted the ATM/SAR/AIS SG/12 meeting Draft Conclusion:

DRAFT CONCLUSION 12/8: MID REGIONAL CONTINGENCY PLAN

That, MID States:

- *a)* review the MID Regional Contingency Plan at **Appendix 3C** to the Report on Agenda Item 8; and
- b) provide updates and comments on the MID Regional Contingency Plan to the ICAO MID Regional Office before **31 January 2012**, for presentation of an updated version to MIDANPIRG/13 for endorsement.

3.24 The meeting noted that a State Letter: AN 6/17 - 11/325 dated 20 December 2011 was sent to States urging them to provide updates and comments to the MID Regional Contingency plan. Only Bahrain Replied informing that they had completed the signing of the contingency agreements with neighbouring States, and provided contact details. The meeting agreed to extend the period in which MID States provide their comments to 28 February 2012.

3.25 The meeting reviewed and updated the status of implementation of the contingency plans in the MID Region and contact details as at **Appendices 3D** and **3E** to Report on Agenda Item 3.

ARN TF/5 Appendix 3A to the Report on Agenda Item 3

ATS ROUTE PROPOSALS MADE BY IRAQ DURING THE BFRI WG AND THE PROPOSALS SUBMITTED BY IRAN AS UPDATED BY ARN TF/5 MEETINGS

DESCRIPTION OF ATS ROUTE PROPOSAL	DECISION	REMARKS
M320 (KUWAIT – MOBIS - RAPLU)	 Not supported by Kuwait at present Needs further studies Route was further discussed in the ARN TF/3, and Kuwait requested additional time to examine the proposal for the establishment of the ATS route. 	 Still not supported by Kuwait Not discussed as both Iraq and Kuwait were not present in the ARN TF/5 meeting
A424 (LOTAN-LOVEK)	 Saudi Arabia has no objections to extend the route in Baghdad FIR Proposed AIRAC date 1 July 2010 	 Saudi Arabia still has no objections to check with Iraq for new implementation and coordination dates Not discussed as both Iraq was not present in the ARN TF/5 meeting
G665 (ABADAN-ARAR)	- To be referred to the ARN TF/3 meeting for further discussions	 Not discussed as both Iran and Iraq were not present in the meeting
G669 (NISER - SOLAT)	 Not supported by Kuwait at present Kuwait will carry out further study Was referred to the ARN TF/3 meeting and discussed Kuwait requested additional time. Saudi Arabia has no objection to open the Route G669) as proposed by Iraq as the segment in Jeddah FIR is already implemented. 	 Still not supported by Kuwait due Military restrictions Proposed to delete segment in Saudi Arabia ; Kuwait was requested to expedite approval request to implement route Not discussed as both Iraq and Kuwait were not present in the meeting

DESCRIPTION OF ATS ROUTE PROPOSAL	DECISION	REMARKS
UL602 (ELEXI – DEIR - ZZOR)	 Syria requested additional time to examine the communication requirements by concerned FIR's. Once the communication issues are resolved it is expected that the ATS route will be implemented. 	 Not discussed as both Iraq and Syria were not present in the meeting.
G667 (ABADAN - ALSAN)	 Not supported by Kuwait at present. Kuwait requested additional time to examine the proposal. Iraq requested that Airway be suspended until adequate radar coverrage exists and RVSM has been implemented in the Baghdad (FIR). 	 Still not supported by Kuwait due Military restrictions Kuwait was requested to expedite approval request to implement route.
R652 (OVANO - DAXAN)	 Not supported by Jordan and Saudi Arabia. Refer the ATS route to the MID/RMA for further studies and analysis of passing frequency. ATS route R652 is in close proximity with ATS route UR785 and fix (OTILA) that would cause traffic conflict. 	 Jordan and Saudi Arabia requested that Iraq to drop the proposal The discussion was to be deferred for the future to have Iraq's Agreement. A proposal was presented by Jordan to use R652 as Departure Route from Amman in to Iraq to alleviate conflict issue on L200. MIDRMA indicated that it has no reservation on Jordan's proposal as long as this route is used only for departures. Further discussion would be required between Jordan, Iraq and Saudi Arabia to finalize the proposal.
MIDSI – IMDAT	 Bahrain requested additional information regarding the connection of (MIDSI - IMDAT) before considering the proposal. Bahrain presented a working paper providing solutions to the proposals that require the establishment of two parallel Air Ways and two Boundary points parallel to Positions ALSER and MIDSI Bahrain informed the meeting that they had discussed 	 This solution needs further discussion and agreement by both States. Bahrain to advise ICAO MID Regional Office of the outcome since Iran was not available in the meeting. This solution needs further discussion and agreement by both States. Bahrain to advise ICAO MID Regional Office

	3A-3	1
DESCRIPTION OF ATS ROUTE PROPOSAL	DECISION	REMARKS
MIDSI - DASDO	 (MIDSI - DASDO) with Iran. The volume of traffic at MIDSI has exceeded the passing frequency limits. Bahrain proposed a second boundary point to create a uni-directional route. The proposal is to be subject to bi-lateral discussions between Bahrain and Iran Bahrain presented a working paper providing solutions to the proposals that require the establishment of two parallel Air Ways and two Boundary points parallel to Positions ALSER and MIDSI 	 of the outcome since Iran was not available in the meeting. a side meeting was convened between Bahrain and Iran to discuss the solutions presented by Bahrain for the establishment of parallel Air Ways and two Boundary points parallel to Positions ALSER and MIDSI. The outcome of the meeting is as follows Both parties agreed to implement: two new uni- directional ATS routes one Northbound, and the other Southbound; implement parallel ATS routes East/Westbound with two boundary points parallel to position ALSER and MIDSI; and request ATS route designators from the ICAO MID Regional Office for the addition of the ATS routes to the MID ANP prior implementation.
KUMUN – PAPAR with DAPER – SYZ	 The UAE registered its disagreement on the proposal of Iran to amend the replacement of points KUMUN – PAPAR with DAPER – SYZ for the following reasons: KUMUN - PAPAR has been unavailable since December 2006 as a result of a unilateral decision by Iran, in contravention of the LOA. 	 No change to status A side meeting was convened between UAE, Iran and IATA to discuss A/UA418 and P/UP574 KUMUN/PAPAR, to resume operation via PAPAR using the old agreed procedures. Parties did not reach any agreement with regards to PAPAR-KUMUN issues due to

DESCRIPTION OF ATS ROUTE PROPOSAL	DECISION	REMARKS
	• The route remains a UAE requirement to permit safe traffic handling without a substantial detour via DARAX.	military and political issues
	• Contradictory coordinates have been stated for position DAPER – one of them being in Jeddah (FIR) and another would result in a head-on flow for inbound traffic to Dubai/Sharjah.	
	• Rather than being deleted, A418/UA418/UP574 should be reinstated in accordance with the LOA	
KATUS - GOKSO to PG) and (BND - ORBIX	 Consideration of the route proposals (KANAS - GOKSO to PG) and (BND - ORBIX) did not take place. State letter was sent to Oman seeking approval for the two proposed Route and a no objection was received. Both Routes have been added to the Basic ANP Doc 9708. For KANAS – GOSKO ATS route designator M316 was issued. For BND – ORBIX, ATS route designator L430 was issued. 	 Waiting for Iran to establish the routes. KANAS fix Changed to KATUS ATS Route designator in MID ANP is M316, added to deficiency list as not implemented. Need to Amend MID ANP to reflect change. BND – ORBIX implemented

AMENDMENT PROPOSAL

PROPOSAL FOR AMENDMENT OF THE ICAO MID AIR NAVIGATION PLAN (DOC 9708), VOLUME I BASIC ANP

(Serial No. MID Basic ANP Year/XX - ATM) (For ICAO Secretariat)

a) **Plan:**

MID Basic Air Navigation Plan

b) **Proposed amendment:**

Editorial note: Amendments are arranged to show "deleted text" using strikeout (text to be deleted), and "added text" with grey shading (text to be inserted)

Remove requirement for ATS route A/UA145 as follows Image: Constant of the system A145 PLH 3513.7N 02340.9E UA145 SALUN 340000N 0242700E * UA145 SALUN 340000N 0242700E BRN 3134.5N 02600.3E SALUN 340000N 0242700E SALUN 340000N 0242700E KHG 2526.9N 03035.4E BRN 3134.5N 02600.3E KHG 2526.9N 03035.4E JUXOR (LXR) 254458 N Image: Constant of the system Salux State 0324607E Image: Constant of the system Salux State WEJH 2610.8N 03629.3E Image: Constant of the system Salux State	*
SALUN 340000N 0242700E * SALUN 340000N 0242700E BRN 3134.5N 02600.3E BRN 3134.5N 02600.3E KHG 2526.9N 03035.4E KHG 2526.9N 03035.4E LUXOR (LXR) 254458 N 0324607E 0324607E 0324607E IMRAD 260500N 0354400E IMRAD 260500N 0354400E WEJH 2610.8N 03629.3E WEJH 2610.8N 03629.3E	*
BRN 3134.5N 02600.3E BRN 3134.5N 02600.3E KHG 2526.9N 03035.4E KHG 2526.9N 03035.4E LUXOR (LXR) 254458 N LUXOR (LXR) 254458 N 0324607E 0324607E IMRAD 260500N 0354400E IMRAD 260500N 0354400E WEJH 2610.8N 03629.3E WEJH 2610.8N 03629.3E	*
KHG 2526.9N 03035.4E KHG 2526.9N 03035.4E LUXOR (LXR) 254458 N LUXOR (LXR) 254458 N 0324607E 0324607E IMRAD 260500N 0354400E IMRAD 260500N 0354400E WEJH 2610.8N 03629.3E WEJH 2610.8N 03629.3E	
LUXOR (LXR) 254458 N LUXOR (LXR) 254458 N 0324607E 0324607E IMRAD 260500N 0354400E IMRAD 260500N 0354400E WEJH 2610.8N 03629.3E WEJH 2610.8N 03629.3E	
0324607E 0324607E IMRAD 260500N 0354400E IMRAD 260500N 0354400E WEJH 2610.8N 03629.3E WEJH 2610.8N 03629.3E	
IMRAD 260500N 0354400E IMRAD 260500N 0354400E WEJH 2610.8N 03629.3E WEJH 2610.8N 03629.3E	
WEJH 2610.8N 03629.3E WEJH 2610.8N 03629.3E	
	7
HLF 262600N 03916.1E HLF 262600N 03916.1E	
GASSIM 2617.9N 04346.8E GASSIM 2617.9N 04346.8E	7
MGA 2617.3N 04712.4E MGA 2617.3N 04712.4E	
ALMAL 2615.9N 04821.1E ALMAL 2615.9N 04821.1E	
KING FAHD 2621.9N 04949.2E KING FAHD 2621.9N 0494	9.2E
Amend requirement for ATS routes	
A/UA411 as follows	
A411 BNA 3207.5N 2015.2E UA411 BNA 3207.5N 2015.2E	
NASER 3151.2N 2355.3E NASER 3151.2N 2355.3E	
LOSUL 314100N 250800E LOSUL 314100N 250800E	
BRN 3134.5N 2600.3E BRN 3134.5N 2600.3E	
(CAIRO) 3005.5N 03123.3E (CAIRO) 3005.5N 03123.3E	7
MENLI 2947.0N 03152.1E MENLI 2947.0N 03152.1E	
KAPIT 2917.0N 03236.1E KAPIT 2917.0N 03236.1E	
SHARM EL SHEIKH SHARM EL SHEIKH	
PASAM 2730.8N 03455.7E PASAM 2730.8N 03455.7E	
*Note 7(OE) *Note 7(OE)	
WEJH 2610.8N 03629.3E WEJH 2610.8N 03629.3E	
MUVAT 2537.9N 03654.8E MUVAT 2537.9N 03654.8E	
YEN 2409.0N 03802.3E YEN 2409.0N 03802.3E	
JDW 2140.7N 03910.0E JDW 2140.7N 03910.0E	
QUN 1922.2N 04104.5E QUN 1922.2N 04104.5E	
TALIB 1838.9N 04131.2E TALIB 1838.9N 04131.2E	
GIZ 1654.5N 04234.7E GIZ 1654.5N 04234.7E	
NABAN 1631.4N 04301.8E NABAN 1631.4N 04301.8E	
IMSIL 1557.6N 04313.2E IMSIL 1557.6N 04313.2E	
SAA 1530.0N 04413.2E SAA 1530.0N 04413.2E	

3B-2

	Remove requirement for ATS route		
	A/UA415 as follows		
<u>A415</u>	KING KHALID	UA415	KING KHALID
//13	HSA 2516.7N 04929.0E	0/1413	HSA 2516.7N 04929.0E
	DOHA		DOHA
	* Note 5(OE,OB)		* Note 5(OE,OB)
	· · · ·		SHARJAH
	SHARJAH		BHAKJAH
	Remove requirement for ATS route		
	A/UA417 as follows		
A417		UA417	DUTDA 1/5/22NI 0525/21F
A417	PUTRA 165432N 0525631E LOTEL 180926N0514103E	UA41/	PUTRA 165432N 0525631E
			LOTEL 180926N0514103E
	IMPOS 183136N 0511848E		IMPOS 183136N 0511848E
	SILPA 184953N 0510158E		SILPA 184953N 0510158E
	ASTIN 200410N 0495320E		ASTIN 200410N 0495320E
	NONGA 205048N 0492014E		NONGA 205048N 0492014E
	ALRIK 220631N 0482535E		ALRIK 220631N 0482535E
	AMBAG 230529N 0474611E		AMBAG 230529N 0474611E
	RESAL 240649N 0470427E		RESAL 240649N 0470427E
	KIA 245310N 0464534E		KIA 245310N 0464534E
	Remove requirement for ATS route		
1 410	A/UA419 as follows	T14 440	
A419	(ASHGABAT)	UA419	(ASHGABAT)
	RIKOP 3740.0N 05814.8E		RIKOP 3740.0N 05814.8E
	SABZEVAR (SBZ)		SABZEVAR (SBZ)
	TABAS (TBS)		TABAS (TBS)
	DARBAND (DAR)		DARBAND (DAR)
	KERMAN (KER)		KERMAN (KER)
	BANDAR ABBAS (BND)		BANDAR ABBAS (BND)
	DARAX 260942N 0555300E		DARAX 260942N 0555300E
	SHARJAH		SHARJAH
	MIADA 245112N 0545736E		MIADA 245112N 0545736E
	ADV 2425.1N 05440.4E		ADV 2425.1N 05440.4E
	* Note 8 (OM)		* Note 8 (OM)
	MUSEN 2414.6N 05432.6E		MUSEN 2414.6N 05432.6E
	GOLGU 231051N 0523109E		GOLGU 231051N 0523109E
	KITAP 224928N 0522923E		KITAP 224928N 0522923E
	PURDA 210805N 0510329E		PURDA 210805N 0510329E
	ASTIN 200410N 0495320E		ASTIN 200410N 0495320E
	KUTMA 182927N 0481202E		KUTMA 182927N 0481202E
	SHARURAH (SHA)		SHARURAH (SHA)
	SANA'A		SANA'A
	HODEIDA		HODEIDA
	Remove requirement for ATS route		
	A/UA791 as follows		
A791	MENLI 2947.0N 03152.1E	UA791	MENLI 2947.0N 03152.1E
	SISIK 2936.0N 03241.E		SISIK 2936.0N 03241.E
	NUWEIBAA		NUWEIBAA
	KITOT 2902.1N 03450.8E		KITOT 2902.1N 03450.8E
	*Note 7 (OE)		*Note 7 (OE)
	SOBAS 2756.0N 03904.9E		SOBAS 2756.0N 03904.9E
	HAIL		HAIL
	BPN 2703.2N 04526.7E	Ì	BPN 2703.2N 04526.7E

	KING FAHD		KING FAHD
	BAHRAIN		BAHRAIN
	*Note 7 Bahrain-		*Note 7 Bahrain-
	LOTIT 264856N0511237E		LOTIT 264856N0511237E
	NADAM 255854N 0533933E		NADAM 255854N 0533933E
	SHARJAH (SHJ) 2519.7N		SHARJAH (SHJ) 2519.7N
	05531.3E		05531.3E
	IMLOT 2517.1N 05708.1E		IMLOT 2517.1N 05708.1E
	KATUS 2515.9N 05747.0E		KATUS 2515.9N 05747.0E
	DIVAB 2510.7N 05952.1E		DIVAB 2510.7N 05952.1E
	EGPIC 2508.6N 06029.5E		EGPIC 2508.6N 06029.5E
	(JIWANI)		(JIWANI)
	LATEM 2431.7N 06449.7E		LATEM 2431.7N 06449.7E
	Remove requirement for ATS route		
	B/UB418 as follows		
B418	SEMRU 280200N 0320306E	UB418	SEMRU 280200N 0320306E
	HURGHADA (HGD)		HURGHADA (HGD)
	SILKA 263400N 0352900E		SILKA 263400N 0352900E
	WEJH (WEJ)		WEJH (WEJ)
	KODIN 2517.9N 03836.2E		KODIN 2517.9N 03836.2E
	MADINAH(PMA)		MADINAH(PMA)
	BIR DARB (BDB)		BIR DARB (BDB)
	AL-DAWADMI (DAW)		AL DAWADMI (DAW)
	KING KHALID (KIA)		KING KHALID (KIA)
	ALMAL 2615.9N 04821.1E		ALMAL 2615.9N 04821.1E
	LOTIT 264856N0511237E		LOTIT 264856N0511237E
	MIDSI 264142N0515442E		MIDSI 264142N0515442E
	Remove requirement for ATS route		
	G/UG400 as follows		
G400	KUMBI 334250N 0284500E	UG400	KUMBI 334250N 0284500E
	LABNA 321956N 0301612E		LABNA 321956N 0301612E
	BALTIM (BLT) 313144N		BALTIM (BLT) 313144N
	0310721E		0310721E
	Amend requirement for ATS routes		
	L/UL308 as follows		
L308	EGNOV 270301N 0474713E	UL308	EGNOV 270301N 0474713E
	(JBL) 270220N 0492427E		(JBL) 270220N 0492427E
	GASSI 2702.9N 05022.5E		GASSI 2702.9N 05022.5E
	UMAMA 2658.5N 05046.8E		UMAMA 2658.5N 05046.8E
	LOTIT 2648.9N 05112.6E		LOTIT 2648.9N 05112.6E
	NADAM 255854N 0533933E		NADAM 255854N 0533933E
	SHARJAH (SHJ) 2519.7N		SHARJAH (SHJ) 2519.7N
	05531.3E		SПАКЈАП (SHJ) 2519./N 05531.3Е
	IMLOT 2517.1N 05708.1E		IMLOT 2517.1N 05708.1E
	IZ ATTLIS 2515 ONLOST 47 OF		KATUS 2515.9N 05747.0E
	KATUS 2515.9N 05747.0E		DIVA D 2510 5N 05052 1E
	DIVAB 2510.7N 05952.1E		DIVAB 2510.7N 05952.1E
	DIVAB 2510.7N 05952.1E EGPIC 2508.6N 06029.5E		EGPIC 2508.6N 06029.5E
	DIVAB 2510.7N 05952.1E		

3B-4

L/UL430 as follows BND 271149N 0562200E DIVAB 251042N 0595206E ORBIX 2444300N 0603511E VAXIM 231900N 0611100E	UL430	BND 271149N 0562200E DIVAB 251042N 0595206E ODDIV 2444200N 06025111E
ORBIX 2444300N 0603511E VAXIM 231900N 0611100E		
ORBIX 2444300N 0603511E VAXIM 231900N 0611100E		
		ORBIX 2444300N 0603511E
~		VAXIM 231900N 0611100E
MESPO 244936N 0593411E		MESPO 244936N 0593411E
MELMI 264625N 0572300E		MELMI 264625N 0572300E
TAVNO 281112N 0563252E		TAVNO 281112N 0563252E
ASMET 284827N 0560806E		ASMET 284827N 0560806E
SRJ 2933.4N 05539.6E		SRJ 2933.4N 05539.6E
Add requirement for ATS routes		
	UL 564	DOHA (DOH)
	UL304	BATHA (BAT) 241257N
		0512707E
MIGMA 225035N 0512749E		MIGMA 225035N 0512749E
PURDA 210805N 0510329E		PURDA 210805N 0510329E
ASTIN 200410N 0495320E		ASTIN 200410N 0495320E
SHARURAH (SHA)		SHARURAH (SHA)
ATBOT 171418N 0464706E		ATBOT 171418N 0464706E
RAGNI 163454N 0454815E		RAGNI 163454N 0454815E
LOPAD 161651N 0453738E		LOPAD 161651N 0453738E
ITOLI 152825N 0450927E		ITOLI 152825N 0450927E
OBNAM 144541N 0444448E		OBNAM 144541N 0444448E
GEVEL 141229N 0442547E		GEVEL 141229N 0442547E
NOPVO 135436N 0441536E		NOPVO 135436N 0441536E
TAZ 134149.53N 0440818.98E		TAZ 134149.53N 0440818.98E
PARIM 123142N 0432712E		PARIM 123142N 0432712E
Add requirement for ATS routes		
		PLH 3513.7N 02340.9E
	UL004	SALUN 340000N 0242700E *
		BRN 3134.5N 02600.3E
		KHG 2526.9N 03035.4E
		LUXOR (LXR) 254458 N
		0324607E
		IMRAD 260500N 0354400E
		WEJH 2610.8N 03629.3E
		HLF 262600N 03916.1E
		GASSIM 2617.9N 04346.8E
		MGA 2617.3N 04712.4E
		ALMAL 2615.9N 04821.1E
		KING FAHD 2621.9N 04949.2E
Amend requirement for ATS routes L/UL612 as follows		
	UL612	METRU 340000N 0250900E
		KANAR 322727N 0265330E
		EL DABA (DBA) 310041N
VIIMDI 224250NI 0294500F		0282801E
		KUMBI 334250N 0284500E
		LABNA 321956N 0301612E
BALTIM (BLT) 313144N		BALTIM (BLT) 313144N 0310721E
	PURDA 210805N 0510329E ASTIN 200410N 0495320E SHARURAH (SHA) ATBOT 171418N 0464706E RAGNI 163454N 0454815E LOPAD 161651N 0453738E ITOLI 152825N 0450927E OBNAM 144541N 0444448E GEVEL 141229N 0442547E NOPVO 135436N 0441536E TAZ 134149.53N 0440818.98E PARIM 123142N 0432712E Add requirement for ATS routes L/UL604 as follows PLH 3513.7N 02340.9E SALUN 340000N 0242700E * BRN 3134.5N 02600.3E KHG 2526.9N 03035.4E LUXOR (LXR) 254458 N 0324607E IMRAD 260500N 0354400E WEJH 2610.8N 03629.3E HLF 262600N 03916.1E GASSIM 2617.9N 04346.8E MGA 2617.3N 04712.4E ALMAL 2615.9N 04821.1E KING FAHD 2621.9N 04949.2E	DOHA (DOH) UL564 BATHA (BAT) 241257N 0512707E

	Add requirement for ATS routes		
	L/UL677 as follows		
L677	(CAIRO) 3005.5N 03123.3E	UL677	(CAIRO) 3005.5N 03123.3E
2011	MENLI 2947.0N 03152.1E	CLOTT	MENLI 2947.0N 03152.1E
	KAPIT 2917.0N 03236.1E		KAPIT 2917.0N 03236.1E
	SHARM EL SHEIKH		SHARM EL SHEIKH
	PASAM 2730.8N 03455.7E		PASAM 2730.8N 03455.7E
	*Note 7(OE)		*Note 7(OE)
	WEJH 2610.8N 03629.3E		WEJH 2610.8N 03629.3E
	MUVAT 2537.9N 03654.8E		MUVAT 2537.9N 03654.8E
	YEN 2409.0N 03802.3E		YEN 2409.0N 03802.3E
	JDW 2140.7N 03910.0E		JDW 2140.7N 03910.0E
	QUN 1922.2N 04104.5E		QUN 1922.2N 04104.5E
	TALIB 1838.9N 04131.2E		TALIB 1838.9N 04131.2E
	GIZ 1654.5N 04234.7E		GIZ 1654.5N 04234.7E
	NABAN 1631.4N 04301.8E		NABAN 1631.4N 04301.8E
	IMSIL 1557.6N 04313.2E		IMSIL 1557.6N 04313.2E
	SAA 1530.0N 04413.2E		SAA 1530.0N 04413.2E
	Add requirement for ATS routes		
	M/UM309 as follows		
M309	KING KHALID	UM309	KING KHALID
111007	HSA 2516.7N 04929.0E	0111009	HSA 2516.7N 04929.0E
	DOHA		DOHA
	* Note 5(OE,OB)		* Note 5(OE,OB)
	SHARJAH		SHARJAH
	Add requirement for ATS routes		
	M/UM318 as follows		
M318	(ASHGABAT)	UM318	(ASHGABAT)
	RIKOP 3740.0N 05814.8E		RIKOP 3740.0N 05814.8E
	SABZEVAR (SBZ)		SABZEVAR (SBZ)
	TABAS (TBS)		TABAS (TBS)
	DARBAND (DAR)		DARBAND (DAR)
	KERMAN (KER)		KERMAN (KER)
	BANDAR ABBAS (BND)		BANDAR ABBAS (BND)
	DARAX 260942N 0555300E		DARAX 260942N 0555300E
	SHARJAH		SHARJAH
	MIADA 245112N 0545736E		MIADA 245112N 0545736E
	ADV 2425.1N 05440.4E		ADV 2425.1N 05440.4E
	* Note 8 (OM)		* Note 8 (OM)
	MUSEN 2414.6N 05432.6E		MUSEN 2414.6N 05432.6E
	GOLGU 231051N 0523109E		GOLGU 231051N 0523109E
	KITAP 224928N 0522923E		KITAP 224928N 0522923E
	PURDA 210805N 0510329E		PURDA 210805N 0510329E
	ASTIN 200410N 0495320E		ASTIN 200410N 0495320E
	KUTMA 182927N 0481202E		KUTMA 182927N 0481202E
	SHARURAH (SHA)		SHARURAH (SHA)
	SANA'A		SANA'A
	HODEIDA		HODEIDA
	Amend requirement for ATS routes		
	M/UM321 as follows		
M321	HALAIFA 262602N 0391609E	UM321	HALAIFA 262602N 0391609E

3B-6

			
	(HLF)		(HLF)
	ROSUL 2539.7N 04215.3E		ROSUL 2539.7N 04215.3E
	OVEKU 2509.9 04457.0E		OVEKU 2509.9 04457.0E
	KING KHALED (KIA)		KING KHALED (KIA)
	RESAL 240649N 0470427E		RESAL 240649N 0470427E
	AMBAG 230529N 0474611E		AMBAG 230529N 0474611E
	ALRIK 220631N 0482535E		ALRIK 220631N 0482535E
	NONGA 205048N 0492014E		NONGA 205048N 0492014E
	ASTIN 200410N 0495320E		ASTIN 200410N 0495320E
	SILPA 184953N 0510158E		SILPA 184953N 0510158E
	IMPOS 183136N 0511848E		IMPOS 183136N 0511848E
	LOTEL 180926N0514103E		LOTEL 180926N0514103E
	PUTRA 165432N 0525631E		PUTRA 165432N 0525631E
	Add requirement for ATS routes		
	M/UM872 as follows		
M872	PLH 3513.7N 02340.9E	UM872	PLH 3513.7N 02340.9E
	METRU 340000N 0250900E		METRU 340000N 0250900E
	KANAR 322727N 0265330E		KANAR 322727N 0265330E
	EL DABA (DBA) 310041N		EL DABA (DBA) 310041N
	0282801E		0282801E
	FYM 2923.8N 03023.6E		FYM 2923.8N 03023.6E
	SEMRU 280200N 0320306E		SEMRU 280200N 0320306E
	HURGHADA (HGD)		HURGHADA (HGD)
	SILKA 263400N 0352900E		SILKA 263400N 0352900E
	WEJH (WEJ) 261046N 0362917E		WEJH (WEJ) 261046N 0362917E
	KODIN 2517.9N 03836.2E		KODIN 2517.9N 03836.2E
	MADINAH (PMA)		MADINAH (PMA)
	BIR DARB (BDB)		BIR DARB (BDB)
	AL DAWADMI (DAW)		AL DAWADMI (DAW)
	KING KHALID (KIA)		KING KHALID (KIA)
	ALMAL 261553N 0482108E		ALMAL 261553N 0482108E
	LOTIT 264856N0511237E		LOTIT 264856N0511237E
			MIDSI 264142N0515442E
	MIDSI 264142N0515442E		MIDSI 204142N0515442E
	A		
	Amend requirement for ATS routes M/UM999 as follows		
M999	GS	UM999	GS
11999	DITAR 265903N 0250000E	0101999	GS DITAR 265903N 0250000E
	KHG		KHG
	KUNAK		KUNAK
	(LUXOR) LXR		(LUXOR) LXR
	DEDLI 2242 32N 03737 19E		DEDLI 2242 32N 03737 19E
	IMLER 221706N 0381653E		IMLER 221706N 0381653E
	KING ABDULAZIZ (JDW)		KING ABDULAZIZ (JDW)
	TOKTO 194421N 00395945E		TOKTO 194421N 00395945E
	DANAK 1608.0N 04129.0E		DANAK 1608.0N 04129.0E
	(ASSAB) SB		(ASSAB) SB
	Add requirement for ATS routes N/UN697 as		
N697	MENLI 2947.0N 03152.1E	UN697	MENLI 2947.0N 03152.1E
	SISIK 2936.0N 03241.E		SISIK 2936.0N 03241.E
	NUWEIBAA		NUWEIBAA
	KITOT 2902.1N 03450.8E		KITOT 2902.1N 03450.8E

	*Note 7 (OE)		*Note 7 (OE)
	SOBAS 2756.0N 03904.9E		SOBAS 2756.0N 03904.9E
	HAIL		HAIL
	BPN 2703.2N 04526.7E		BPN 2703.2N 04526.7E
	KING FAHD		KING FAHD
	BAHRAIN		
			BAHRAIN
	*Note 7 Bahrain-		*Note 7 Bahrain-
	LOTIT 264856N0511237E		LOTIT 264856N0511237E
	Amend requirement for ATS routes		
	P/UP559 as follows		
P559	(LARNACA) LCA	UP559	(LARNACA) LCA
1007	KUKLA 3414.6N 3444.8E		KUKLA 3414.6N 3444.8E
	KUKLA SHI4,010 SHI4,012 KHALDEH (KAD)		KHALDEH (KAD)
	DAKWE 3338.9N 03555.0E		DAKWE 3338.9N 03555.0E
	* Note 4 (OS)		DARWE 3338.51 (35353.0E)
	DAMASCUS		ROSLI 3154.3N 03836.8E
	* Note 3(OS,OJ)		* Note 3 (OS,OJ)
	TURAIF (TRF) KAND 2025 ON 04011 SE		TURAIF (TRF) KAVID 3035.9N 04011.8E
	KAVID 3035.9N 04011.8E		
	TOKLU 2942.1N 04202.4E		TOKLU 2942.1N 04202.4E
	RASMO 2857.2N 04331.3E		RASMO 2857.2N 04331.3E
	KMC		KMC
	MUSKO 2726.7N 04737.1E		MUSKO 2726.7N 04737.1E
	KEDAT 2721.8N 04759.0E		KEDAT 2721.8N 04759.0E
	JUBAIL (JBL)		JUBAIL (JBL)
	GASSI 2702.9N 05022.5E		GASSI 2702.9N 05022.5E
	UMAMA 2658.5N 05046.8E		UMAMA 2658.5N 05046.8E
	LOTIT 2648.9N 05112.6E		LOTIT 2648.9N 05112.6E
	VUXOR 2553.7N 05322.0E		VUXOR 2553.7N 05322.0E
	Amend requirement for ATS routes		
DOT	R/UR654 as follows		
R654	ZANJAN (ZAJ)	UR654	MAGRI 385408N 0462300E
	SAVEH (SAV)		ZANJAN (ZAJ)
	ESFAHAN (ISN)		SAVEH (SAV)
	YAZD (YZD)		ESFAHAN (ISN)
	KERMAN (KER)		YAZD (YZD)
	NABOD 2816.1N 05825.3E		KERMAN (KER)
	CHAH BAHAR (CBH)		NABOD 2816.1N 05825.3E
	EGTAL 243458N 0603724E		CHAH BAHAR (CBH)
	EGPIC 2508.6N 06029.5E		EGPIC 2508.6N 06029.5E
	VAXIM 231900N 0611100E		EGTAL 243458N 0603724E
			VAXIM 231900N 0611100E
	Amend requirement for ATS routes		
	R/UR659 as follows		
R659	TEHRAN(TRN)	UR659	TEHRAN(TRN)
	*Note 7 (ISN-TRN)		*Note 7 (ISN-TRN)
	BOXAM 343749N 0515147E		BOXAM 343749N 0515147E
	DAPOG 333744N 0522331E		DAPOG 333744N 0522331E
	SHIRAZ (SYZ)		SHIRAZ (SYZ)
	DOHA (DOH)		DOHA (DOH)
	BATHA (BAT) 241257N 0512707E		BATHA (BAT) 241257N
			0512707E
	MIGMA 225035N 0512749E		MIGMA 225035N 0512749E
	1 L	1	I

implementation:

3B-8

	PURDA 210805N 0510329E		PURDA 210805N 0510329E
	ASTIN 200410N 0495320E		ASTIN 200410N 0495320E
	SHARURAH (SHA)		SHARURAH (SHA)
	ATBOT 171418N 0464706E		ATBOT 171418N 0464706E
	RAGNI 163454N 0454815E		RAGNI 163454N 0454815E
	LOPAD 161651N 0453738E		LOPAD 161651N 0453738E
	ITOLI 152825N 0450927E		ITOLI 152825N 0450927E
	OBNAM 144541N 0444448E		OBNAM 144541N 0444448E
	GEVEL 141229N 0442547E		GEVEL 141229N 0442547E
	NOPVO 135436N 0441536E		NOPVO 135436N 0441536E
	TAZ 134149.53N 0440818.98E		TAZ 134149.53N 0440818.98E
	PARIM 123142N 0432712E		PARIM 123142N 0432712E
	Remove requirement for ATS route		
	R/UR775 as follows		
R775	LUXOR (LXR) 254458N	UR775	LUXOR (LXR) 254458N
	0324607E		0324607E
	DEDLI 2242 32N 03737 19E		DEDLI 2242 32N 03737 19E
	KING ABDULAZIZ (JDW)		KING ABDULAZIZ (JDW)
	TOKTO 194421N 00395945E		TOKTO 194421N 00395945E
	DANAK 1608.0N 04129.0E		DANAK 1608.0N 04129.0E
	(ASSAB) SB		(ASSAB) SB

c) Originated by:	ATS Route Network Task Force/5 (ARN TF/5) meeting	
d) Originator's reasons for amendment:	As a result of a review of the ATS route requirements for the MID Region by ARN Task Force and concerned MID States, to improve the route structure and efficiency and to meet user requirements.	
e) Intended date of	as soon as practicable after approval	

- f) **Proposal circulated to** Mogadishu Antanarivo following States and Bahrain Oman organizations: Qatar Cyprus Djibouti Saudi Arabia Egypt Sudan Eritrea Syrian Arab Republic United Arab Emirates Ethiopia Yemen Greece Iran, Islamic Republic of Seychelles ASECNA Iraq Jordan CANSO Kuwait IACA Lebanon IATA Libya IFALPA
- g) Secretariat's comments: The changes proposed herein are the result of work undertaken by the MIDANPIRG Subsidiary Bodies (ARN TF); the Middle East Offices of ICAO and individual States in the Region to enhance traffic flows and ATS route efficiencies.

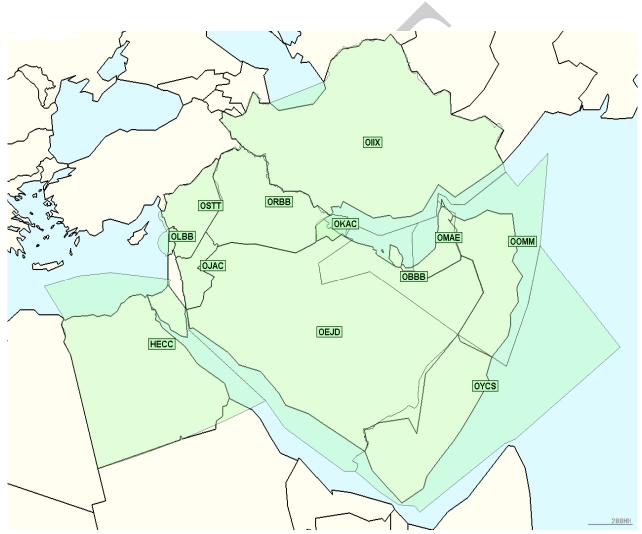
ARN TF/5-REPORT APPENDIX 3C

ARN TF/5 Appendix 3C to the Report on Agenda Item 3

MID Doc ----

AIR TRAFFIC MANAGEMENT OPERATIONAL CONTINGENCY PLAN

MID REGION



First Edition: 22 May 2011

Published on behalf of the ATS Route Network Task Force (ARN TF) by the MID Regional Office of ICAO

EXCLUSION OF LIABILITY

A printed or electronic copy of this Manual, plus any associated documentation, is provided to the recipient as is and without any warranties as to its description, condition, quality, fitness for purpose or functionality and for use by the recipient solely for guidance only. Any implied conditions terms or warranties as to the description, condition, quality, fitness for purpose or functionality of the software and associated documentation are hereby excluded.

The information published by ICAO on this document is made available without warranty of any kind; the Organization accepts no responsibility or liability whether direct or indirect, as to the currency, accuracy or quality of the information, nor for any consequence of its use.

The designations and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of ICAO concerning the legal status of any country, territory, city or area of its authorities, or concerning the delimitation of its frontiers or boundaries.

First published: 22 May 2011

There is no objection to the reproduction of extracts of information contained in this Document if the source is acknowledged.

Air Traffic management Operational Contingency Plan – MID Region

TABLE OF CONTENTS

EXCI	LUSION	OF LIABILITY
FORE	EWORD.	
RECO	ORD OF	AMENDMENTS
		NGENCY PLAN FOR FLIGHTS OPERATING WITHIN THE MID REGION REAS
PART	7 1 - CON	NTINGENCY SITUATIONS AFFECTING ATC FACILITIES
SCOI	PE OF T	HE PLAN
		ROCEDURES
		ntation of the plan
,	Traffic Ir	nformation Broadcast by Aircraft (TIBA) procedures
CHAI	PTER 1:	DETAILED PROCEDURES – BAHRAIN ACC
1.1	FIR FO	OR WHICH THE CONTINGENCY PLAN APPLIES
1.2	FIRS V	WITH SUPPORTING PROCEDURES
1.3	NOTI	FICATION PROCEDURES
1.4	LIMIT	ED SERVICE - PROCEDURES
	1.4.1	Disruption of ground/air communication capability
	1.4.2	Effect on flights Disruption of ability to provide control services
	1	Separation standards
-		Contingency tracks
		Air Traffic Flow Management Responsibilities of adjacent ANSPs
		Responsionnes of adjacent ANSPS
1.5	NO SE	ERVICE - PROCEDURES
	1.5.1	Loss of ground/air communication capability
	1.5.2	Effect on flights Loss of ability to provide control services
1.6	ELICI	IT CREW AND OPERATOR PROCEDURES
1.0	1.6.1	for flights within the Bahrain FIR – General
	1.6.2	for flights within the Bahrain FIR – Westbound
	1.6.3	for flights within the Bahrain FIR – Eastbound
	1.6.4	for flights approaching the Bahrain FIR when the contingency is activated
		Not in Receipt of an ATC Clearance
		In receipt of an acknowledged ATC Clearance outside Bahrain FIR
	165	In receipt of an acknowledged ATC Clearance within Bahrain FIR
	1.6.5	Entering from another FIR

1.7	BAHRAIN ACC – CONTINGENCY ROUTE STRUCTURE			
	1.7.1	For activation within Bahrain FIR		
	1.7.2	for activation within adjacent FIR's		
		Emirates FIR		
		Jeddah FIR		
		Kuwait FIR		
		Muscat FIR		
		Tehran FIR.		
		Sana'a FIR		
1.8	ΟΛΤΛΙ	R TMA – CONTINGENCY ROUTE STRUCTURE		
1.0	1.8.1	For activation within Bahrain FIR.		
	1.8.2	for activation within adjacent FIR's		
	1.0.2	Emirates FIR		
		Jeddah FIR		
		Kuwait FIR		
		Muscat FIR		
		Tehran FIR		
		Sana'a FIR		
1.9	LONG	TERM CONTINGENCY ARRANGEMENTS		
		STATES PROCEDURES IN EVENT OF BAHRAIN ACC EVACUATION		
		CONTACT DETAILS – BAHRAIN ACC		
APPEN	DIX	EVACUATION MESSAGES – BAHRAIN ACC		
СНАР	TER 2:	DETAILED PROCEDURES - CAIRO ACC		
2.1	EID EC	NO WHICH THE CONTINCENCY DI ANI ADDI JEC		
2.1	FIK FU	OR WHICH THE CONTINGENCY PLAN APPLIES		
2.2	FIDS W	VITH SUPPORTING PROCEDURES		
2.2	TIKS V	VIIII SUITOR TINO TROCEDORES		
2.3	NOTIE	ICATION PROCEDURES		
2.5	nom	ICHTOWT ROCED URED.		
2.4	LIMIT	ED SERVICE - PROCEDURES		
	2.4.1	Disruption of ground/air communication capability		
		Effect on flights		
	2.4.2	Disruption of ability to provide control services		
		Separation standards		
		Contingency tracks		
		Air Traffic Flow Management		
		Responsibilities of adjacent ANSPs		
2.5	NO SE	RVICE - PROCEDURES		
	2.5.1	Loss of ground/air communication capability		
		Effect on flights		
	2.5.2	Loss of ability to provide control services		
_				
2.6		T CREW AND OPERATOR PROCEDURES		
	2.6.1	for flights within the Cairo FIR – General		
	2.6.2	for flights within the Cairo FIR – Westbound		
	2.6.3	for flights within the Cairo FIR – Eastbound		

	2.6.4	for flights approaching the Cairo FIR when the contingency is activated Not in Receipt of an ATC Clearance In receipt of an acknowledged ATC Clearance outside Cairo FIR
	2.6.5	In receipt of an acknowledged ATC Clearance within Cairo FIR Entering from another FIR
2.7		ACC – CONTINGENCY ROUTE STRUCTURE
	2.7.1	For activation within Cairo FIR
	2.7.2	for activation within adjacent FIR's
		Amman FIR
		Athens FIR
		Jeddah FIR
		Khartoum FIR
		Nicosia FIR
		Riyadh ACC
		Nicosia FIR Riyadh ACC Tripoli FIR
2.8		TERM CONTINGENCY ARRANGEMENTS
		STATES PROCEDURES IN EVENT OF CAIRO ACC EVACUATION
APPEN	DIX	CONTACT DETAILS – CAIRO ACC
APPEN	DIX	EVACUATION MESSAGES – CAIRO ACC
CHAP		DETAILED PROCEDURES - IRAN ACC
3.1		R WHICH THE CONTINGENCY PLAN APPLIES
3.2	FIRS W	VITH SUPPORTING PROCEDURES
3.3		ICATION PROCEDURES
3.4	LIMITI	ED SERVICE - PROCEDURES
	3.4.1	Disruption of ground/air communication capability Effect on flights
	3.4.2	Disruption of ability to provide control services
	5.7.2	Separation standards
		Contingency tracks
		Air Traffic Flow Management
		Responsibilities of adjacent ANSPs
		responsionnes of adjacent in (of similar the sinterval the similar the similar the similar the similar
3.5	NO SEI	RVICE - PROCEDURES
	3.5.1	Loss of ground/air communication capability
		Effect on flights
	3.5.2	Loss of ability to provide control services
3.6	FLIGH	T CREW AND OPERATOR PROCEDURES
	3.6.1	for flights within the Tehran FIR – General
	3.6.2	for flights within the Tehran FIR – Westbound
	3.6.3	for flights within the Tehran FIR – Eastbound
	3.6.4	for flights approaching the Tehran FIR when the contingency is activated
		Not in Receipt of an ATC Clearance
		In receipt of an acknowledged ATC Clearance outside Tehran FIR In receipt of an acknowledged ATC Clearance within Tehran FIR

	3.6.5	Entering from another FIR
3.7	TEHRA 3.7.1 3.7.2	AN ACC – CONTINGENCY ROUTE STRUCTURE For activation within Tehran FIR for activation within adjacent FIR's Ankara FIR Baghdad FIR Bahrain FIR. Baku FIR Emirates FIR Kabul FIR Kuwait FIR Muscat FIR Yerevan FIR
3.8	LONG	TERM CONTINGENCY ARRANGEMENTS
APPEN	DIX	STATES PROCEDURES IN EVENT OF TEHRAN ACC EVACUATION CONTACT DETAILS – TEHRAN ACC EVACUATION MESSAGES – TEHRAN ACC
СНАР	TER 4:	DETAILED PROCEDURES - IRAQ ACC
4.1		OR WHICH THE CONTINGENCY PLAN APPLIES
4.2	FIRS V	VITH SUPPORTING PROCEDURES
4.3	NOTIF	ICATION PROCEDURES
4.4	LIMIT	ED SERVICE - PROCEDURES
	4.4.1 4.4.2	Disruption of ground/air communication capability Effect on flights Disruption of ability to provide control services Separation standards Contingency tracks Air Traffic Flow Management Responsibilities of adjacent ANSPs
4.5	NO SE 4.5.1 4.5.2	RVICE - PROCEDURES Loss of ground/air communication capability Effect on flights Loss of ability to provide control services
4.6	FLIGH 4.6.1 4.6.2 4.6.3 4.6.4	T CREW AND OPERATOR PROCEDURES for flights within the Baghdad FIR – General for flights within the Baghdad FIR – Westbound for flights within the Baghdad FIR – Eastbound for flights approaching the Baghdad FIR when the contingency is activated Not in Receipt of an ATC Clearance In receipt of an acknowledged ATC Clearance outside Baghdad FIR In receipt of an acknowledged ATC Clearance within Baghdad FIR

	4.6.5	Entering from another FIR
4.7	BAGH	IDAD ACC – CONTINGENCY ROUTE STRUCTURE
	4.7.1	For activation within Baghdad FIR
	4.7.2	for activation within adjacent FIR's
		Amman FIR
		Ankara FIR
		Damascus FIR
		Jeddah FIR
		Kuwait FIR
		Tehran FIR
4.8	LONG	TERM CONTINGENCY ARRANGEMENTS
		STATES PROCEDURES IN EVENT OF BAGHDAD ACC EVACUATION
APPEN	NDIX	- CONTACT DETAILS – BAGHDAD ACC
APPEN	NDIX	EVACUATION MESSAGES – BAGHDAD ACC
СНАР	TER 5:	DETAILED PROCEDURES - AMMAN ACC
5.1	FIR FO	DR WHICH THE CONTINGENCY PLAN APPLIES
5.2	FIRS V	WITH SUPPORTING PROCEDURES
5.3		FICATION PROCEDURES
5.4	LIMIT	ED SERVICE - PROCEDURES
	5.4.1	Disruption of ground/air communication capability
	J.4.1	Effect on flights
	5.4.2	Disruption of ability to provide control services.
	5.4.2	Separation standards
		Contingency tracks
		Air Traffic Flow Management
		Responsibilities of adjacent ANSPs
5.5	NO SE	RVICE - PROCEDURES
	5.5.1	Loss of ground/air communication capability
		Effect on flights.
	5.5.2	Loss of ability to provide control services
5.6	FLIGH	IT CREW AND OPERATOR PROCEDURES
	5.6.1	for flights within the Amman FIR – General
	5.6.2	for flights within the Amman FIR – Westbound
	5.6.3	for flights within the Amman FIR – Eastbound
	5.6.4	for flights approaching the Amman FIR when the contingency is activated
		Not in Receipt of an ATC Clearance
		In receipt of an acknowledged ATC Clearance outside Amman FIR
		In receipt of an acknowledged ATC Clearance within Amman FIR
	5.6.5	Entering from another FIR
5.7	AMM	AN ACC – CONTINGENCY ROUTE STRUCTURE
5.1	5.7.1	For activation within Amman FIR
	5.7.2	for activation within adjacent FIR's
	<i></i>	

		Baghdad FIR
		Cairo FIR
		Damascus FIR
		Jeddah FIR
		Tel Aviv FIR
5.8	LONG	TERM CONTINGENCY ARRANGEMENTS
APPEN	DIX -	STATES PROCEDURES IN EVENT OF AMMAN ACC EVACUATION
APPEN	DIX	CONTACT DETAILS – AMMAN ACC
APPEN	DIX	EVACUATION MESSAGES – AMMAN ACC
CHAP	TER 6:	DETAILED PROCEDURES - KUWAIT ACC
6.1	FIR FO	PR WHICH THE CONTINGENCY PLAN APPLIES
6.2	FIRS W	VITH SUPPORTING PROCEDURES
6.3		ICATION PROCEDURES
6.4	LIMIT	ED SERVICE - PROCEDURES
	6.4.1	Disruption of ground/air communication capability Effect on flights
	6.4.2	Disruption of ability to provide control services
	01.112	Separation standards
		Contingency tracks
		Air Traffic Flow Management
		Responsibilities of adjacent ANSPs
6.5	NO SE	RVICE - PROCEDURES
0.5	6.5.1	Loss of ground/air communication capability
	0.5.1	Effect on flights
	6.5.2	Loss of ability to provide control services
6.6		T CREW AND OPERATOR PROCEDURES
	6.6.1	for flights within the Kuwait FIR – General
	6.6.2	for flights within the Kuwait FIR – Westbound.
	6.6.3 6.6.4	for flights within the Kuwait FIR – Eastbound for flights approaching the Kuwait FIR when the contingency is activated
	0.0.4	Not in Receipt of an ATC Clearance
		In receipt of an acknowledged ATC Clearance outside Kuwait FIR
		In receipt of an acknowledged ATC Clearance within Kuwait FIR
	6.6.5	Entering from another FIR
6.7		IT ACC – CONTINGENCY ROUTE STRUCTURE
	6.7.1	For activation within Kuwait FIR
	6.7.2	for activation within adjacent FIR's
		Baghdad FIR
		Bahrain FIR Jeddah FIR
		Tehran FIR

6.8	LONG	TERM CONTINGENCY ARRANGEMENTS
APPEN	DIX (STATES PROCEDURES IN EVENT OF KUWAIT ACC EVACUATION CONTACT DETAILS – KUWAIT ACC EVACUATION MESSAGES – KUWAIT ACC
CHAP	FER 7: 1	DETAILED PROCEDURES - BEIRUT ACC
7.1	FIR FO	R WHICH THE CONTINGENCY PLAN APPLIES
7.2	FIRS W	TTH SUPPORTING PROCEDURES
7.3	NOTIFI	ICATION PROCEDURES
7.4	LIMITE	ED SERVICE - PROCEDURES
	7.4.2	Disruption of ground/air communication capability Effect on flights Disruption of ability to provide control services Separation standards Contingency tracks Air Traffic Flow Management
7.5		Responsibilities of adjacent ANSPs
1.5	7.5.1	Loss of ground/air communication capability Effect on flights Loss of ability to provide control services
7.6	7.6.1 7.6.2 7.6.3 7.6.4	T CREW AND OPERATOR PROCEDURES
7.7	7.7.1 7.7.2	T ACC – CONTINGENCY ROUTE STRUCTURE For activation within Beirut FIR for activation within adjacent FIR's Damascus FIR Nicosia FIR
7.8	LONG '	TERM CONTINGENCY ARRANGEMENTS
APPEN	DIX	STATES PROCEDURES IN EVENT OF BEIRUT ACC EVACUATION CONTACT DETAILS – BEIRUT ACC EVACUATION MESSAGES – BEIRUT ACC

СНАР	TER 8:	DETAILED PROCEDURES - TRIPOLI ACC
8.1	FIR FC	OR WHICH THE CONTINGENCY PLAN APPLIES
8.2	FIRS V	VITH SUPPORTING PROCEDURES
8.3	NOTIF	ICATION PROCEDURES
8.4	LIMIT	ED SERVICE - PROCEDURES
	8.4.1 8.4.2	Disruption of ground/air communication capability Effect on flights Disruption of ability to provide control services Separation standards Contingency tracks Air Traffic Flow Management
		Responsibilities of adjacent ANSPs
8.5	8.5.1	RVICE - PROCEDURES Loss of ground/air communication capability Effect on flights
	8.5.2	Loss of ability to provide control services
8.6	FLIGH 8.6.1 8.6.2 8.6.3 8.6.4	T CREW AND OPERATOR PROCEDURES for flights within the Tripoli FIR – General for flights within the Tripoli FIR – Westbound for flights within the Tripoli FIR – Eastbound for flights approaching the Tripoli FIR when the contingency is activated Not in Receipt of an ATC Clearance In receipt of an acknowledged ATC Clearance outside Tripoli FIR In receipt of an acknowledged ATC Clearance within Tripoli FIR
	8.6.5	Entering from another FIR
8.7	TRIPO 8.7.1 8.7.2	LI ACC – CONTINGENCY ROUTE STRUCTURE For activation within Tripoli FIR for activation within adjacent FIR's Algiers FIR Cairo FIR Khartoum FIR Malta FIR N'Djamena FIR Niamey UIR Nicosia FIR Tunis FIR.
8.8	LONG	TERM CONTINGENCY ARRANGEMENTS
		STATES PROCEDURES IN EVENT OF TRIPOLI ACC EVACUATION CONTACT DETAILS – TRIPOLI ACC

СНАР	TER9:	DETAILED PROCEDURES - MUSCAT ACC
9.1	FIR FO	OR WHICH THE CONTINGENCY PLAN APPLIES
9.2	FIRS V	VITH SUPPORTING PROCEDURES
9.3	NOTIF	FICATION PROCEDURES
9.4	LIMIT	ED SERVICE - PROCEDURES
	9.4.1	Disruption of ground/air communication capability Effect on flights
	9.4.2	Disruption of ability to provide control services.
		Separation standards
		Contingency tracks
		Air Traffic Flow Management
		Responsibilities of adjacent ANSPs
9.5	NO SF	RVICE - PROCEDURES
7.5	9.5.1	Loss of ground/air communication capability
	,	Effect on flights
	9.5.2	Loss of ability to provide control services
9.6	FLIGH	T CREW AND OPERATOR PROCEDURES
	9.6.1	for flights within the Muscat FIR – General
	9.6.2	for flights within the Muscat FIR – Westbound
	9.6.3	for flights within the Muscat FIR – Eastbound
	9.6.4	for flights approaching the Muscat FIR when the contingency is activated
		Not in Receipt of an ATC Clearance
		In receipt of an acknowledged ATC Clearance outside Muscat FIR
	0.65	In receipt of an acknowledged ATC Clearance within Muscat FIR
	9.6.5	Entering from another FIR
9.7	MUSC	AT ACC – CONTINGENCY ROUTE STRUCTURE
	9.7.1	For activation within Muscat FIR
	9.7.2	for activation within adjacent FIR's
		Bahrain FIR
		Emirates FIR
		Karachi FIR
		Mumbai FIR
		Tehran FIR
		Sana'a FIR
9.8	LONG	TERM CONTINGENCY ARRANGEMENTS
	JDIY	STATES PROCEDURES IN EVENT OF MUSCAT ACC EVACUATION
		CONTACT DETAILS – MUSCAT ACC
		EVACUATION MESSAGES – MUSCAT ACC
СНАР	TER 10	: DETAILED PROCEDURES – JEDDAH ACC
10.1	FIR FO	DR WHICH THE CONTINGENCY PLAN APPLIES
10.2	FIRS V	VITH SUPPORTING PROCEDURES

10.3	NOTIF	ICATION PROCEDURES
10.4	LIMIT	ED SERVICE - PROCEDURES
	10.4.1	Disruption of ground/air communication capability
	10 4 2	Effect on flights
	10.4.2	Disruption of ability to provide control services
		Separation standards
		Contingency tracks.
		Air Traffic Flow Management Responsibilities of adjacent ANSPs
		Responsibilities of adjacent ANSES
10.5		RVICE - PROCEDURES
	10.5.1	Loss of ground/air communication capability
		Effect on flights
	10.5.2	Loss of ability to provide control services
10.6	ELICU	T CREW AND OPERATOR PROCEDURES
10.6		for flights within the Jeddah FIR – General
	10.0.1	for flights within the Joddeh EID Weethound
	10.0.2	for flights within the Jeddah FIR – Westbound for flights within the Jeddah FIR – Eastbound
		for flights approaching the Jeddah FIR when the contingency is activated
	10.0.4	Not in Receipt of an ATC Clearance
		In receipt of an acknowledged ATC Clearance outside Jeddah FIR
		In receipt of an acknowledged ATC Clearance within Jeddah FIR
	10.6.5	Entering from another FIR.
	10.0.2	
10.7	JEDDA	AH ACC – CONTINGENCY ROUTE STRUCTURE
	10.7.1	for activation within Jeddah FIR
	10.7.2	for activation within adjacent FIR's
		Amman FIR
		Asmara FIR.
		Bahrain FIR
		Baghdad FIR
		Cairo FIR
		Khartoum FIR
		Kuwait FIR
		Sana'a FIR
10.8	DIVAT	DH ACC – CONTINGENCY ROUTE STRUCTURE
10.8		for activation within Jeddah FIR
		for activation within adjacent FIR's
	10.0.2	Amman FIR
		Asmara FIR
		Bahrain FIR
		Baghdad FIR
		Cairo FIR
		Khartoum FIR
		Kuaroum Fik
		Sana'a FIR

10.9	LONG TERM CONTINGENCY ARRANGEMENTS
APPEN	IDIX - STATES PROCEDURES IN EVENT OF JEDDAH ACC EVACUATION IDIX CONTACT DETAILS – RIYADH AND JEDDAH ACC IDIX EVACUATION MESSAGES – RIYADH AND JEDDAH ACC
CHAP	FER 11: DETAILED PROCEDURES – KHARTOUM ACC
11.1	FIR FOR WHICH THE CONTINGENCY PLAN APPLIES
11.2	FIRS WITH SUPPORTING PROCEDURES.
11.3	NOTIFICATION PROCEDURES
11.4	LIMITED SERVICE - PROCEDURES
	11.4.1 Disruption of ground/air communication capability Effect on flights
	11.4.2 Disruption of ability to provide control services
11.5	NO SERVICE - PROCEDURES. 11.5.1 Loss of ground/air communication capability Effect on flights. 11.5.2 Loss of ability to provide control services.
11.6	 FLIGHT CREW AND OPERATOR PROCEDURES. 11.6.1 for flights within the Khartoum FIR – General. 11.6.2 for flights within the Khartoum FIR – Westbound. 11.6.3 for flights within the Khartoum FIR – Eastbound. 11.6.4 for flights approaching the Khartoum FIR when the contingency is activated. Not in Receipt of an ATC Clearance. In receipt of an acknowledged ATC Clearance outside Khartoum FIR. In receipt of an acknowledged ATC Clearance within Khartoum FIR. 11.6.5 Entering from another FIR.
11.7	KHARTOUM ACC – CONTINGENCY ROUTE STRUCTURE 11.7.1 for activation within Khartoum FIR 11.7.2 for activation within adjacent FIR's Addis Abeba FIR Asmara FIR Brazzaville FIR Cairo FIR Entebbe FIR Jeddah FIR Nairobi FIR N'Djamena FIR Tripoli FIR

11.8	LONG	TERM CONTINGENCY ARRANGEMENTS
APPEN	DIX	STATES PROCEDURES IN EVENT OF KHARTOUM ACC EVACUATION CONTACT DETAILS – RIYADH AND KHARTOUM ACC EVACUATION MESSAGES – KHARTOUM ACC
СНАР	TER 12	: DETAILED PROCEDURES - DAMASCUS ACC
12.1	FIR FC	R WHICH THE CONTINGENCY PLAN APPLIES
12.2		VITH SUPPORTING PROCEDURES
12.3		ICATION PROCEDURES
12.4		ED SERVICE - PROCEDURES
	12.4.1	Disruption of ground/air communication capability Effect on flights
	12.4.2	Disruption of ability to provide control services
		Contingency tracks Air Traffic Flow Management Responsibilities of adjacent ANSPs
12.5	NO SE	RVICE - PROCEDURES
		Loss of ground/air communication capability Effect on flights
	12.5.2	Loss of ability to provide control services
12.6	12.6.1 12.6.2 12.6.3 12.6.4	T CREW AND OPERATOR PROCEDURES
12.7	12.7.1	SCUS ACC – CONTINGENCY ROUTE STRUCTURE For activation within Damascus FIR for activation within adjacent FIR's Amman FIR Ankara FIR Baghdad FIR Beirut FIR Nicosia FIR
12.8	LONG	TERM CONTINGENCY ARRANGEMENTS
APPEN	DIX	STATES PROCEDURES IN EVENT OF DAMASCU ACC EVACUATION CONTACT DETAILS – DAMASCUS ACC EVACUATION MESSAGES – DAMASCUS ACC

CHAP	FER 13 :	: DETAILED PROCEDURES – EMIRATES ACC
13.1	FIR FO	R WHICH THE CONTINGENCY PLAN APPLIES
13.2	FIRS W	VITH SUPPORTING PROCEDURES
13.3	NOTIF	ICATION PROCEDURES
13.4	LIMITI	ED SERVICE - PROCEDURES
	13.4.1	Disruption of ground/air communication capability Effect on flights
	13.4.2	Disruption of ability to provide control services.
		Separation standards
		Contingency tracks
		Air Traffic Flow Management
		Responsibilities of adjacent ANSPs
13.5	NO SE	RVICE - PROCEDURES
1010		Loss of ground/air communication capability
		Effect on flights
	13.5.2	Loss of ability to provide control services
13.6		T CREW AND OPERATOR PROCEDURES
	13.6.1	for flights within the Emirates FIR – General
		for flights within the Emirates s FIR – Westbound
	13.6.3	for flights within the Emirates FIR – Eastbound
	13.6.4	for flights approaching the Emirates FIR when the contingency is activated
		Not in Receipt of an ATC Clearance
		In receipt of an acknowledged ATC Clearance outside Emirates FIR In receipt of an acknowledged ATC Clearance within Emirates FIR
	13.6.5	Entering from another FIR
13.7		ATES ACC – CONTINGENCY ROUTE STRUCTURE
		For activation within Emirates FIR
	13.7.2	for activation within adjacent FIR's
		Bahrain FIR
		Muscat FIR
		Qatar Tehran FIR
13.8	LONG	TERM CONTINGENCY ARRANGEMENTS
APPEN	DIX - S	STATES PROCEDURES IN EVENT OF EMIRATES ACC EVACUATION
		CONTACT DETAILS – EMIRATES ACC
APPEN	DIX	EVACUATION MESSAGES – EMIRATES ACC
CHAP	FER 14	: DETAILED PROCEDURES – YEMEN ACC
14.1	FIR FO	R WHICH THE CONTINGENCY PLAN APPLIES
14.2	FIRS W	/ITH SUPPORTING PROCEDURES
14.3	NOTIF	ICATION PROCEDURES

14.4	LIMIT	ED SERVICE - PROCEDURES
	14.4.1	Disruption of ground/air communication capability
	1440	Effect on flights
	14.4.2	Disruption of ability to provide control services
		Separation standards Contingency tracks
		Air Traffic Flow Management
		Responsibilities of adjacent ANSPs
		Responsionnes of adjacent ritior s
14.5	NO SE	RVICE - PROCEDURES
		Loss of ground/air communication capability
		Effect on flights
	14.5.2	Loss of ability to provide control services
14.6	FLIGH	T CREW AND OPERATOR PROCEDURES
	14.6.1	for flights within the Sana'a FIR – General.
	14.6.2	for flights within the Sana'a FIR – Westbound
		for flights within the Sana'a FIR – Eastbound
	14.6.4	for flights approaching the Sana'a FIR when the contingency is activated
		Not in Receipt of an ATC Clearance.
		In receipt of an acknowledged ATC Clearance outside Sana'a FIR
	1465	In receipt of an acknowledged ATC Clearance within Sana'a FIR
	14.6.5	Entering from another FIR
14.7	SANA'	A ACC – CONTINGENCY ROUTE STRUCTURE
11.7		for activation within Sana'a FIR.
		for activation within adjacent FIR's
		Addis Ababa FIR.
		Asmara FIR
		Bahrain FIR
		Jeddah FIR
		Mogadishu FIR
		Mumbai FIR
		Muscat FIR
14.8	LONG	TERM CONTINGENCY ARRANGEMENTS
APPEN	DIX -	STATES PROCEDURES IN EVENT OF SANA'A ACC EVACUATION
		CONTACT DETAILS – SANA'A ACC
		EVACUATION MESSAGES – SANA'A ACC
PART	n - cc	ONTINGENCY SITUATIONS AFFECTING MULTIPLE FIRS
SCOPE	E OF TH	HE PLAN
MID R	EGION	AL VOLCANIC ASH CONTINGENCY PLAN - TABLE OF CONTENTS
FORE	WORD	
ALER	FING P	HASE
		
Origina	ating A	CC actions (eruption in its own flight information region)

Adjacent ACC actions
Flow management units' action
REACTIVE PHASE
Originating ACC actions (eruption in its own FIR)
120 NM temporary danger area
Contaminated area based on SIGMET.
Contaminated area based on VAA.
Adjacent ACC actions
ATFM unit actions
PROACTIVE PHASE
ATFM PROCEDURES
AIR TRAFFIC CONTROL PROCEDURES Air traffic control procedures for ACCs
GENERAL GUIDANCE FOR THE DEVELOPMENT OF ATS CONTINGENCY PLANS FOR VOLCANIC ASH CLOUDS
APPENDIX - ANTICIPATED PILOT ISSUES WHEN ENCOUNTERING VOLCANIC ASH CLOUDS
PPENDIX - ACTION TAKEN BY METEOROLOGICAL WATCH OFFICES IN THE EVENT OF A VOLCANIC ERUPTION
APPENDIX - ACTION TO BE TAKEN BY THE VAAC IN THE EVENT OF A VOLCANIC ERUPTION
MID REGIONAL DIVERSION AND MASS TURNBACK PLAN

FOREWORD

This Document is for guidance only. Regulatory material relating to the MID Regional aircraft operations is contained in relevant ICAO Annexes, PANS/ATM (Doc.4444), Regional Supplementary Procedures (Doc.7030), State AIPs and current NOTAMs, which should be read in conjunction with the material contained in this Document.

The MID Region is fast growing continental airspace in the world, and is strategically situated between EUR/NAT Region to the North, WACAF Region to the west ESAF Region to the South East and APAC Region to the East. In 2010 in excess of ----- flights transited the airspace. The ATS Route accommodates a high concentration of traffic which regularly sees traffic flows in excess of 100 flights per hour. Control of traffic in this vast and complex airspace is delegated to a number of states, with their Continental Control facilities geographically dispersed.

The MID Regional Air Traffic Management Operational Contingency Plan is primarily for the information of operators and pilots planning and conducting operations in MID Region. The intent is to provide a description of the arrangements in place to deal with a range of contingency situations.

The Manual has been produced with the approval and on behalf of the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG); a MID Regional planning body established under the auspices of the International Civil Aviation Organisation (ICAO). This Group is responsible for developing the required operational procedures; specifying the necessary services and facilities and; defining the aircraft and operator approval standards employed in the MID Region.

> Middle East Regional Office of ICAO P. O. Box 85, Airport Post Office Cairo 11776, Egypt

Edited by

Tel: +20 2 2267 4845/46/41 Fax : +20 2 2267 4843 Email : <u>icaomid@cairo.icao.int</u> http:// <u>www.icao.int/mid/</u>

This Document will be made available to users from a number of web sites including the ICAO MID website http:// <u>www.icao.int/mid/</u>

To assist with the editing of this Manual and to ensure the currency and accuracy of future editions it would be appreciated if readers would submit their comments/suggestions for possible amendments/additions, to the ICAO MID Regional Office at the above Email address.

RECORD OF AMENDMENTS

Amendment Number	Effective Date	Initiated by	Paragraph/ Reference	Remarks

ATM CONTINGENCY PLAN

FOR FLIGHTS OPERATING

WITHIN THE MID REGIONAL CONTINENTAL CONTROL AREAS

Objective

The Air Traffic Management (ATM) Contingency Plan contains details of the arrangements in place to ensure, as far as possible, the continued safety of air navigation in the event of partial or total disruption of Air Traffic Services within the MID region. This document is produced in accordance with the requirement of ICAO Annex 11 – Air Traffic Services, Chapter 2, paragraph 2.30.

This plan details both common procedures throughout the NAT region and the procedures specific to the individual ANSPs within the MID region. The plan is presented in two parts:

Part 1 – Contingency Situations Affecting ATC Facilities

ATC services within the MID region are provided from a number of geographical locations and this plan details the contingency arrangements at each of these facilities. It is considered unlikely that any physical contingency at one particular facility will affect another directly, hence in Part 1 of this document the procedures for each ACC are considered independently.

Part 2 – Contingency Situations Affecting Multiple FIRs

This part of the plan considers events which are likely to affect more than one facility within the MID region. In particular these include the contingency arrangements in place to deal with;

- the airspace suffering contamination by volcanic ash.
- the steps taken to deal with a mass turn back of traffic over the MID region.

States and FIRs affected

This document contains contingency procedures for those Air Navigation Service Providers (ANSPs) who provide an ATC service within the MID region, and those ANSPs whose airspace has a common boundary with the MID region for which supporting procedures are published.

The states, FIRs and ACCs affected by this contingency plan and for which procedures are promulgated are as follows:

Bahrain

Bahrain FIR

Egypt

Cairo FIR

Iran, Islamic Republic of

Tehran Control

Iraq

Baghdad Control

Jordan

Amman Control

Kuwait

Kuwait Control

Lebanon

Beirut Control

<mark>Libya</mark>

Tripoli Control

Oman

Muscat Control

Qatar

Bahrain Control

Saudi Arabia

- Jeddah Control
- Riyadh Control

<mark>Sudan</mark>

Khartoum Control

Syrian Arab Republic

Damascus Control

United Arab Emirates

Emirates Control

Yemen

Sana'a Control

PART 1 –

CONTINGENCY SITUATIONS AFFECTING ATC FACILITIES

SCOPE OF THE PLAN

This part of the Contingency Plan considers:

- > Common procedures adopted by ATC facilities in the event of contingency situations.
- Detailed procedures adopted by individual ATC facilities in the event of contingency situations. The plan considers contingency situations which may result in a degradation of the ATC service provided (limited service) as well as situations where there is a total loss of the ability to provide ATC services (no service).

Where available, information is also provided outlining the steps taken by ANSPs to deal with a long term unavailability of an ATC facility. In particular the procedures detailed by each ATC facility will, insofar as possible, comprise the following:

- FIRs for which the Contingency Plan applies
- FIRs with supporting procedures
- Notification procedures
- Implementation of the plan
- Limited service
 - disruption of ground/air communication capability
 - disruption of ability to provide control services
- No service
 - loss of ground/air communication capability
 - loss of ability to provide control services
- Contingency Route Structure:
 - for activation within that FIR
 - for activation within adjacent FIR
- Long term contingency arrangements
- Contact details

COMMON PROCEDURES

Implementation of the plan

In the event of adoption of contingency procedures ANSPs will notify all affected agencies and operators appropriately.

In **Limited Service** situations the individual ANSP will decide upon the level of notification necessary and take action as required to cascade the information.

In **No Service** situations it is likely that the ATC facility involved will be subject to evacuation. In this instance the ANSP will issue NOTAMs and broadcast on appropriate frequencies that contingency procedures have been initiated. The notification process employed by individual ANSPs is detailed in their respective entries in this plan, however the general format will be as follows:

Issue a NOTAM advising operators of the evacuation. The following is an example of the type of information which may be promulgated:

"Due to emergency evacuation of (States ACC) all ATC services are terminated. Flights within (States ACC) FIR should continue as cleared and contact the next ATC agency as soon as possible. Flights not in receipt of an ATC clearance should land at an appropriate airfield or request clearance to avoid (State) FIR. Flights should monitor (defined frequencies)."

Broadcast an evacuation message on appropriate frequencies:

"Emergency evacuation of (Sates ACC) is in progress. No air traffic control service will be provided by (States ACC). Use extreme caution and monitor (control frequencies), emergency frequencies and air to air frequencies. Contact the next air traffic control unit as soon as possible".

Traffic Information Broadcast by Aircraft (TIBA) procedures

The following communications procedures have been developed in accordance with the Traffic Information Broadcast by Aircraft (TIBA) procedures recommended by ICAO (Annex 11 – Air Traffic Services, Attachment C). These procedures should be applied when completing an altitude change to comply with the ATC clearance.

At least 3 minutes prior to the commencement of a climb or descent the flight should broadcast on the last assigned frequency, 121.5, 243.0 and 123.45 the following:

"ALL STATION (callsign) (direction) DIRECT FROM (landfall fix) TO (oceanic entry point) LEAVING FLIGHT LEVEL (number) FOR FLIGHT LEVEL (number) AT (distance)(direction) FROM (oceanic entry point) AT (time)".

When the level change begins, the flight should make the following broadcast:

"ALL STATIONS (callsign) (direction) DIRECTION FROM (landfall fix) TO (oceanic entry point) LEAVING FLIGHT LEVEL (number) NOW FOR FLIGHT LEVEL (number)."

When level, the flight should make the following broadcast:

"ALL STATIONS (callsign) MAINTAINING FLIGHT LEVEL (number)."

UL768 117.45-BUZ A788 READ. (Red I Ë UL76 316 10 W143 117.9 LAR UN318 115.9 MC UP559 117 Q 114.8 LEN A791 123.7 BPN A453 A453 UP559 MIB 145 A145 **E**IS I.Gg Ng2g kв Y505 Ð d8 G662 112.5 KEA NEST 20 **HER** 16.6 HSA 112.4 DOH ŚΉ, .3 -4415 115,2 ALD • A415 A415 16.1 DAW T532 1550 V62 114.0 ALB 114.9 MA 4 113.4 BAT D UM³ 115.4 PSA 1992 112.6 ALN 114.25 ADV A419 UM440 883 1 M628 1.883 115 1 SBT UM628 6652 UNSIS UM440 R659 N569 P304 R405 L883 N315 UG183 EAST 116.9 ARD L883 L556 145.2 WDR L556 Naza UL425 URER 413.9 THA **B**RIT 113.3 HA UB424 B

CHAPTER 1: DETAILED PROCEDURES – BAHRAIN FIR

1.1

FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Bahrain FIR

1.2 FIRS WITH SUPPORTING PROCEDURES

Emirates FIR Jeddah FIR Riyadh ACC Kuwait FIR Muscat FIR Tehran FIR

Sana'a FIR

1.3 NOTIFICATION PROCEDURES

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

1.4 LIMITED SERVICE – PROCEDURES

1.4.1 Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Bahrain frequency normally provided by Bahrain Control will be delegated as appropriate to the other ATS units namely Doha, Riyadh and Dhahran. Appropriate frequencies will be advised by Bahrain and the assisting ATS units.

Situations which could result in a Limited Service are:

Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)
- d) Data Lines (Loss of data lines between Bahrain Communications center and Bahrain ACC)

Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

Staffing

Reduced Staffing Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

1.4.2 Disruption of ability to provide control services

Bahrain ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in emergency.

Traffic without a valid clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

Separation standards

Bahrain ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

Contingency tracks

Dependant on the nature of the service limitation, Bahrain may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available.

Air Traffic Flow Management

Bahrain ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Bahrain ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units airspace.

Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

1.5 NO SERVICE – PROCEDURES

1.5.1 Loss of ground/air communication capability

In the event of Bahrain ACC being unable to provide ground/air communications for Bahrain FIR Bahrain and Qatar APP Units will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
 - Transmitters (Loss of all Transmitters)
 - Receivers (Loss of all Receivers)
 - Aerials (Loss of all Aerials)
 - Data Lines (Loss of data lines)
- b) Propagation;
 - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.

- c) Staffing
 - No Staff
 - Illness (Seasonal Influenza)
 - Weather
 - Industrial Relations issues
- d) Evacuation of Bahrain ACC
 - Fire
 - Bomb threat

Effect on flights

In the event of Bahrain ACC being unable to provide ground/air communications for a sustained period of time Bahrain CAA in coordination with adjacent FIR's could provide a limited communications facility to flights in the Bahrain FIR.

ATFM measures may be imposed as necessary.

1.5.2 Loss of ability to provide control services

Should Bahrain ACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the Bahrain FIR.

In the event that Bahrain ACC is evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication. The procedures to be adopted are detailed in the Bahrain Contingency plan.

The Plan will be activated by promulgation of a NOTAM issued by (CAA) as far in advance as is practicable. However, when such prior notification is Impracticable for any reason, the Plan will be put into effect on notification by (CAA) and/or ICAO MID office.

As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as, detailed in the Bahrain Contingency Procedures – Appendix xx.' In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix XX.

1.6 FLIGHT CREW AND OPERATOR PROCEDURES

1.6.1 For flights within the Bahrain FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45 and the assigned Unit frequency. A listening watch on these frequencies must be maintained.

1.6.2 For flights within the Bahrain FIR – Westbound

Emirates ACC will endeavour to provide an ATC service throughout the Bahrain FIR as soon as evacuation commences. These procedures are detailed at Bahrain Contingency Procedures – Appendix x

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAIL	AFTN
Tehran ACC	00982144544116	00982144544117	maj.alireza@yahoo.com	OIIIZGZX
	or 44554060 or			
	44544133 (Sector		alireza.majzoubi@gmail.com	
	Controller)			
Muscat ACC	00968 24 519 550	00968 24519 930		OOMMZQZX
Riyadh ACC	+966 1 221 1121	00966	atskia@gmail.com	
Jeddah ACC	+9662685 5764/5	+9662 685 54021	atcfahad@hotmail.com	
Sana'a ACC	00967 1345402/3	00967 1344047	atccns@gmail.com	OYSNZQZX
				OYSNZQZA
Bahrain ACC	009731732	0097317321029	bahatc@caa.gov.bh	OBBBZQZX
	1080/1081			OBBBZQZA
Emirates ACC	0097125996969	0097125996850	atc@szc.gcaa.ae	OMAEZQZX
		0097125996852	mdolbey@szc.gcaa.ae	OMAEYAYH
Kuwait ACC	+96524346220 /	+965 24346221	baracoda99@hotmail.com	
	24710268		q8dgca_danoff@hotmail.com	
Qatar APP	+974 4462 2300	+974 4465 6554	ahmed@caa.gov.qa	

ICAO MID	0020 2 2267 4845/46/41	0020 2 2267 4843	
IATA	00962 6 569 8728	OO962 6 560 4548	saidh@iata.org

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

1.6.3 For flights within the Bahrain FIR – Eastbound

Jeddah ACC, Riyadh ACC and Kuwait ACC will endeavour to provide an ATC service throughout the Bahrain FIR as soon as evacuation commences. These procedures are detailed at Bahrain Contingency Procedures – Appendix x

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

1.6.4 For flights approaching the Bahrain FIR when the contingency is activated.

Not in Receipt of an ATC Clearance

In the event that Bahrain ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Bahrain FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Bahrain FIR or to land at an appropriate airfield.

In receipt of an acknowledged ATC Clearance outside Bahrain FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Bahrain FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

1.7 BAHRAIN FIR – CONTINGENCY ROUTE STRUCTURE

1.7.1 For activation within Bahrain FIR

In a **limited service** contingency situation Bahrain ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the Bahrain FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN

1.7.2 For activation within adjacent FIR

Unless instructed otherwise, flights entering the Bahrain FIR should use the following contingency routes:

ROUTE NAME	ENTRY FIX	AIRWAY ROUTING	EXIT FIX	ALTITUDES
BAHCR1WB	BALUS	UL768 RAMSI UL602	DAVUS	FL260+ EXCEPT FL340
BAHCR2WB	BALUS	UL768	COPPI	FL260+ EXCEPT FL340
BAHCR3WB	BALUS	N929 SILNO A791	BPN	FL260+ EXCEPT FL340
BAHCR4WB	BALUS	N929 SILNO G663	GIBUS	FL260+ EXCEPT FL340
BAHCR5WB	ALSER	G663 SILNO G663	GIBUS	FL340 ONLY
BAHCR6WB	ALSER	G663 SILNO A791	BPN	FL340 ONLY
BAHCR7WB	COPPPI	G667	AVOBO	FL240 ONLY
BAHCR8EB	AKRAM	B418 MUTAR G663	ALSER	FL270, FL350
BAHCR9EB	AKRAM	B41B ASPAN UN318	OXAT	FL270, 290, 350
BAHCR10EB	MGA	UP891	EMILU	FL250
BAHCR11EB	TAGSO	UN318	LOXAT	FL310, FL370
BAHCR12EB	ULOVO	UP559 KEDAT UM691 KUSAR UN318	LOXAT	FL330, FL390+
BAHCR13EB	RABAP	UM667 UMAMA UP559 LOTIT A791	NADAM	FL250, 290, 330, 370+

CONTINGENCY ROUTE STRUCTURE FOR BAHRAIN FIR

BAHCRE14B A	MBIK	\rightarrow GEVAL \rightarrow	KUVER	FL270, FL350
-------------	------	-----------------------------------	-------	--------------

CONDITIONS

- 1. all aircraft to be level prior to entry fix
- 2. mach speeds assigned to all aircraft
- 3. no altitude changes in Bahrain fir
- 4. all aircraft will correct altitude for direction of flight

SEPARATION

- 1. all inbound aircraft to be separated by **minimum 15 minutes** longitudinally at entry fix. separation shall be **constant or increasing** as per assigned speeds/mach numbers;
- 2. all inbound aircraft to be separated by **minimum 20 minutes** longitudinally at entry fix **if faster aircraft behind; maximum overtake speed difference of m.04 or 25KTS IAS.**

Communications with the next ATSU should be established at the earliest rtunity.

opportunity.

CONTINGENCY ROUTE	ROUTE	MANDATORY REPORT	MANDATORY REPORT	EXIT FREQUENCY
BAHCR1WB	BALUS UL768 RAMSI UL602 DAVUS	BALUS 132.12MHZ B/U 121.1 DOHA	RAMSI 132.45MHZ B/U 127.85	IVONI KUW 125.3MHZ
BAHCR2WB	BALUS UL768 COPPI	BALUS 132.12MHZ B/U 121.1 DOHA	RAMSI 132.45MHZ B/U 127.85	COPPI JED 134.4 FL340 and Below RIY 132.5 FL360 and above
BAHCR3WB	BALUS N929 SILNO A791 BPN	BALUS 132.12MHZ B/U 121.1 DOHA	RULEX 132.45MHZ B/U 127.85	BPN JED 134.3 FL340 and Below RIY 125.9 FL360 and above
BAHCR4WB	BALUS N929 SILNO G663 GIBUS	BALUS 132.12MHZ B/U 121.1 DOHA	RULEX 132.45MHZ B/U 127.85	GIBUS RIY 126.0MHZ
BAHCR5WB	ALSER G663 GIBUS	ALSER 132.45MHZ B/U 127.85	SILNO 125.05MHZ B/U 126.3 DAM	GIBUS RIY 126.0MHZ
BAHCR6WB	ALSER G663 SILNO A791 BPN	ALSER 132.45MHZ B/U 127.85	SILNO 125.05MHZ B/U 126.3 DAM	BPN JED 134.3MHZ
BAHCR7WB	COPPI G667 AVOBO	COPPI 132.45MHZ B/U 126.3 DAM		MGA RIY 126.0MHZ
BAHCR8EB	B418 NUTAR G663	AKRAM 126.7MHZ B/U 126.3 DAM	MUTAR 132.45 MHZ B/U 126.3 DAM	ALSER TEH 133.4 MHZ

CONTINGENCY FREQUENCIES FOR CONTROL AND/OR FLIGHT MONITORING SERVICES

BAHCR9EB	B418 ASPAN UN318	AKRAM 126.7MHZ B/U 126.3 DAM	ASPAN 132.45MHZ B/U 126.3DAM	LOXAT UAE 128.25MHZ
BAHCR10EB	UP891	MGA 126.7MHZ B/U 126.3 DAM		EMILU KUW 125.3MHZ
BAHCR11EB	UN318	EGNOV 126.7MHZ B/U 126.3DAM	ASPAN 132.45MHZ B/U 126.3 DAM	LOXAT UAE 128.25MHZ
BAHCR12EB	UP559 KEDAT KUSAR UN318	KEDAT 126.7 MHZ B/U 126.3 DAM	ASPAN 132.45 MHZ B/U 126.3	LOXAT UAE 128.25MHZ
BAHCR13EB	UM667 UMAMA UP559 LOTIT A791	GEVAL 132.45 MHZ B/U 126.3 DAM	LOTIT 132.12 MZH B/U 126.3 DAM	NADAM UAE 132.15 MHZ
BAHCR14EB	AMBIK → GEVAL → KUVER	GEVAL 132.45 MHZ B/U 126.3 DAM		KUVER TEH 133.4 MHZ

Note: Any Aircraft with HF capabilities can make position reports on BAH HF frequencies 8910KHZ 5667KHZ 2992KHZ

1.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Bahrain loses the ability to provide an ATC service in the FIR for an extended period, and contingency plans are in place to provide the service from an alternate location.

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Bahrain facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Bahrain FIR after several days. In the interim period, flight operations in Bahrain would be severely restricted and all flights will be required to route clear of the Bahrain FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

APPENDIX XX

SAMPLE NOTAMS

a) Avoidance of airspace

NOTAM......DUE TO DISRUPTION OF ATS IN THE BAHRAIN FIR ALL ACFT ARE ADVISED TO AVOID BAHRAIN FIR.

b) Airspace available with limited ATS

NOTAMDUE TO ANTICIPATED DISRUPTION OF ATS IN THE BAHRAIN FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DELAY AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

c) Contingency plan activated

NOTAMDUE TO DISRUPTION OF ATS IN BAHRAIN FIR ALL ACFT ARE ADVISED THAT THE BAHRAIN AIR TRAFFIC SERVICES CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY BAHRAIN FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE CONTINGENCY ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY BAHRAIN AIRSPACE.

d) Non adherence to the Contingency Plan

NOTAM.....OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE BAHRAIN FIR.

CHAPTER 2: DETAILED PROCEDURES – CAIRO FIR

2.1 FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Cairo FIR

2.2 FIRS WITH SUPPORTING PROCEDURES

Athens FIR Nicosia FIR Amman FIR Tel Aviv FIR Jeddah FIR Riyadh ACC, Khartoum FIR Tripoli FIR

2.3 NOTIFICATION PROCEDURES

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

2.4 LIMITED SERVICE – PROCEDURES

2.4.1 Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Cairo frequency normally provided by Cairo Control will be delegated as appropriate to the other ATS units namely ----- -----. Appropriate frequencies will be advised by Cairo and the assisting stations.

Situations which could result in a Limited Service are:

Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)
- d) Data Lines (Loss of data lines between Cairo Communications center and Cairo ACC)

Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

Staffing

Reduced Staffing Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

2.4.2 Disruption of ability to provide control services

Cairo ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in emergency.

Traffic without a valid clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

Separation standards

Cairo ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

Contingency tracks

Dependant on the nature of the service limitation, Cairo may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available.

Air Traffic Flow Management

Cairo ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Cairo ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units airspace.

Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

2.5 NO SERVICE – PROCEDURES

2.5.1 Loss of ground/air communication capability

In the event of Cairo ACC being unable to provide ground/air communications for Cairo FIR ------ ATC Unit will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
 - Transmitters (Loss of all Transmitters)
 - Receivers (Loss of all Receivers)
 - Aerials (Loss of all Aerials)
 - Data Lines (Loss of data lines)
- b) Propagation;
 - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.
- c) Staffing
 - No Staff
 - Illness (Seasonal Influenza)
 - Weather
 - Industrial Relations issues
- d) Evacuation of Cairo ACC
 - Fire
 - Bomb threat

Effect on flights

In the event of Cairo ACC being unable to provide ground/air communications for a sustained period of time ------ ATC Unit in coordination with adjacent FIR's could provide a limited communications facility to flights in the Cairo FIR.

ATFM measures may be imposed as necessary.

2.5.2 Loss of ability to provide control services

Should Cairo ACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the Cairo FIR.

In the event that Cairo ACC is evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication. The procedures to be adopted are detailed in the Egypt Contingency Plan.

The Plan will be activated by promulgation of a NOTAM issued by (ECAA) as far in advance as is practicable. However, when such prior notification is Impracticable for any reason, the Plan will be put into effect on notification by (ECAA) and/or ICAO MID office.

As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as, detailed in the Cairo Contingency Procedures – Appendix xx.' In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix $\frac{XX}{X}$.

2.6 FLIGHT CREW AND OPERATOR PROCEDURES

2.6.1 For flights within the Cairo FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45 and the assigned Unit frequency. A listening watch on these frequencies must be maintained.

2.6.2 For flights within the Cairo FIR – Westbound

Jeddah ACC, Riyadh ACC, Amman and Tel Aviv ACC will endeavour to provide an ATC service throughout the Cairo FIR as soon as evacuation commences. These procedures are detailed at Cairo Contingency Procedures – Appendix x

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAIL	AFTN
Athens ACC				
Nicosia ACC				
Amman ACC				
Jeddah ACC	00966	00966		
Riyadh ACC	00966	00966		
Khartoum ACC				
Tripoli ACC				

ICAO MID	0020 2 220 4845/46/41	7 0020 2 2267 4843	
IATA	00962 6 569 8728	OO962 6 560 4548	saidh@iata.org

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

2.6.3 For flights within the Cairo FIR – Eastbound

Athens ACC, Nicosia ACC and Tripoli ACC will endeavour to provide an ATC service throughout the Cairo FIR as soon as evacuation commences. These procedures are detailed at Bahrain Contingency Procedures – Appendix x

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

2.6.4 For flights approaching the Cairo FIR when the contingency is activated.

Not in Receipt of an ATC Clearance

In the event that Cairo ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Cairo FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Cairo FIR or to land at an appropriate airfield.

In receipt of an acknowledged ATC Clearance outside Cairo FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Cairo FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

2.7 CAIRO FIR – CONTINGENCY ROUTE STRUCTURE

2.7.1 For activation within Cairo FIR

In a **limited service** contingency situation Cairo ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the Cairo FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN

2.7.2 For activation within adjacent FIR

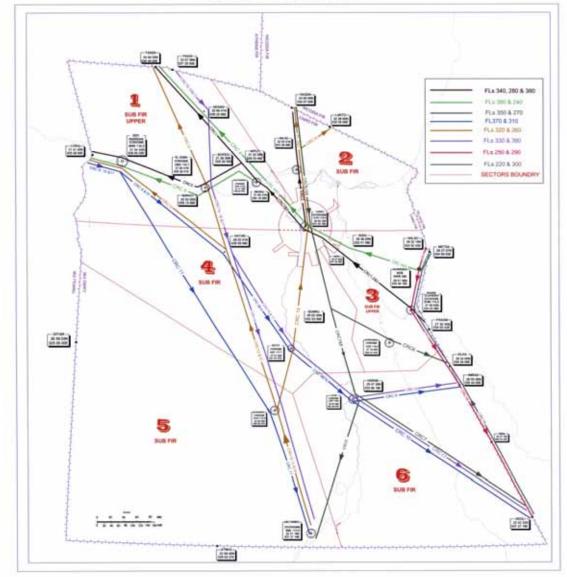
Unless instructed otherwise, flights entering the Cairo FIR should use the following contingency routes:

CONTINGENCY ROUTE STRUCTURE AND FREQUENCIES FOR FLIGHT MONITORING SERVICES CAIRO FIR

CONTINGENCY ROUTES IN		FREQUENCIES	FL ASSIGNMENT
CAIRO (CRC)	ATS ROUTES		ASSIGNMENT
CAIRO (CRC) CRC1	PASAM-A411-CVO-IMRUT-UL617-TANSA	126.6Mhz CVO	FLs 380, 340 an
CKCI	rASAM-A411-C V O-IIVIKU I-UL01/-1ANSA	120.01viliz C V 0 127.7Mhz	280 PLS 380, 340 all
CRC 2	PASAM-A411-CVO-A16-RASDA	127.7Milz 126.6Mhz CVO	FLs 380.340 and
CKC 2	PASAM-A411-CVO-A10-KASDA	120.000112 C V O	280
CRC 3	PASAM-A411-CVO-A727-OTIKO- W725-BRN-A411-LOSUL	124.7Mhz 126.6Mhz CVO	FLs 380.340 and
CKC 5	rASAW-A411-CVO-A/2/-O11KO- W/25-DKIV-A411-LOSOL	120.000012 C V O	280
CRC 4	METSA-W733-NWB-A791-MENLI-A411-CVO-A727-IMRUT-L617/UL617-	127.7Mhz 126.6Mhz CVO	FLs 360 and 24
CKC 4	TANSA	120.0Mhz C VO	1 LS 500 and 24
CRC 5	METSA-W733-NWB-A791-MENLI-A411-CVO-A1-BOPED- W725-BRN- A411-	126.6Mhz CVO	FLs 360 and 24
CKC 5	LOSUL	120.00012 C VO	1 ⁻ LS 500 and 24
CRC 6	RASDA-A16-CVO-A727-SEMRU-B418-SILKA	124.7Mhz CVO	FLs 350 and 27
CKC 0	KASDA-A10-CVO-A/2/-SEMRO-D416-SILKA	132.2Mhz SEMRU	TLS 550 and 27
		126.6Mhz	
CRC 7	RASDA-A16-CVO-A727-LXR-R775-DEDLI	124.7Mhz CVO	FLs 350 and 27
CKC /	KASDA-A10-CVO-A/2/-EAK-K//J-DEDEI	132.2Mhz SEMRU	TLS 550 and 27
		129.4Mhz	
CRC 8	RASDA-A16-CVO-A727-SML	124.7Mhz CVO	FLs 350 and 27
CRC 0	KINDH HIG CVO-HIZI-SME	132.2Mhz	1 L3 550 and 27
		SEMRU 129.4Mhz	
CRC 9	LOSUL-A411-BRN-UP751-LXR-A145-IMRAD	127.7Mhz KATAB	FLs 370 and 31
ene y	LODGE MAIL DRIV OF 751 EAR MIAS IMIRAD	132.2Mhz	1 L3 570 and 5
		AST 129.4Mhz	
CRC 10	LOSUL-A411-BRN-UP751-LXR-R775-DEDLI	127.7Mhz KATAB	FLs 370 and 31
ente ro		132.2Mhz AST	120070 und 0
		129.4Mhz	
CRC 11	LOSUL-A411-BRN-A145-KHG-B12-SML	127.7Mhz DANAD	FLs 370 and 31
		132.2Mhz/ ABM	
		AST 129.4Mhz	
CRC 12	SML-B12-DBA-UL613-TANSA	129.4Mhz ABM	FLs 320 and 20
		AST 132.2Mhz	
		KATAB 127.7Mhz	
CRC 13	SML-B12-KATAB-UP751-BRN-A411-LOSUL	129.4Mhz ABM	FLs 320 and 20
		AST 132.2Mhz	
		KATAB 127.7Mhz	
CRC14	SML-B12-KHG-W8-CVO-A16-MILAD-A16-RASDA OR N307-LAKTO	129.4Mhz AST	FLs 320 and 2
		132.2mhz CVO	
		124.7Mhz	
CRC15	PAXIS-UL607-GESAD-L551-DBA-B12-KATAB-UP751-LXR-A145-IMRAD	127.7Mhz KATAB	FLs 330 and 3
		132.2Mhz AST	
		129.4Mhz	
CRC16	PAXIS-UL607-GESAD-L551-DBA-B12-SML	127.7Mhz KATAB	FLs 330 and 39
		132.2Mhz ABM	
		AST 129.4Mhz	
CRC17	PAXIS-UL607-GESAD-L551-DBA-B12-KATAB-UP751-LXR-R775-DEDLI	127.7Mhz KATAB	FLs 330 and 39
		132.2Mhz AST	
		129.4Mhz	
CRC18	NALSO-NWB-SHM-IMRAD-GIBAL-DEDLI	126.6Mhz SILKA	FLs 290 and 2:
		129.4Mhz	
CRC19	DEDLI-GIBAL-IMRAD-SHM-NWB-NALSO	129.4Mhz SILKA	FLs 300 and 22
		126.6Mhz	

This CRCs table does not include any eastbound routes to AMMAN FIR. Note; Cairo FIR served as well by HF Frequency 11300 KHz

APPENDIX 1E



CONTINGENCY ROUTES WITHIN CAIRO FIR

Communications with the next ATSU should be established at the earliest opportunity.

2.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Egypt loses the ability to provide an ATC service in the Cairo FIR for an extended period, and contingency plans are in place to provide the service from an alternate location.

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Cairo facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Cairo FIR after several days. In the interim period no ATC service will be available and all flights will be required to route clear of the Cairo FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

APPENDIX XX

SAMPLE NOTAMS

a) Avoidance of airspace

NOTAM.....DUE TO DISRUPTION OF ATS IN THE CAIRO FIR ALL ACFT ARE ADVISED TO AVOID THE CAIRO FIR.

b) Airspace available with limited ATS

NOTAMDUE TO ANTICIPATED DISRUPTION OF ATS IN THE CAIRO FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

c) Contingency plan activated

NOTAMDUE TO DISRUPTION OF ATS IN CAIRO FIR ALL ACFT ARE ADVISED THAT THE Cairo FIR INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY CAIRO AIRSPACE.

d) Non adherence to the Contingency Plan

NOTAMOPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE CAIRO FIR

CHAPTER 3: DETAILED PROCEDURES – TEHRAN FIR

3.1 FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Tehran FIR

3.2 FIRS WITH SUPPORTING PROCEDURES

Ankara FIR Baghdad FIR Bahrain FIR Baku FIR Emirates FIR Kabul FIR Karachi FIR Kuwait FIR Muscat FIR Turkmenbashi FIR Yerevan FIR

3.3 NOTIFICATION PROCEDURES

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

3.4 LIMITED SERVICE – PROCEDURES

3.4.1 Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Tehran frequency normally provided by Tehran Control will be delegated as appropriate to the other ATS units namely ______. Appropriate frequencies will be advised by Tehran and the assisting ATS units.

Situations which could result in a Limited Service are:

Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)
- d) Data Lines (Loss of data lines between Tehran Communications center and Tehran ACC)

Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

Staffing

Reduced Staffing Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

3.4.2 Disruption of ability to provide control services

Tehran ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in emergency.

Traffic without a valid clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

Separation standards

Tehran ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

Contingency tracks

Dependant on the nature of the service limitation, Tehran may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available.

Air Traffic Flow Management

Tehran ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Tehran ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units airspace.

Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

3.5 NO SERVICE – PROCEDURES

3.5.1 Loss of ground/air communication capability

In the event of Tehran ACC being unable to provide ground/air communications for Tehran FIR ------ ATC Unit will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
 - Transmitters (Loss of all Transmitters)
 - Receivers (Loss of all Receivers)
 - Aerials (Loss of all Aerials)
 - Data Lines (Loss of data lines)
- b) Propagation;
 - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.
- c) Staffing
 - No Staff
 - Illness (Seasonal Influenza)
 - Weather
 - Industrial Relations issues
- d) Evacuation of Tehran ACC
 - Fire
 - Bomb threat

Effect on flights

In the event of Tehran ACC being unable to provide ground/air communications for a sustained period of time ------ ATC Unit in coordination with adjacent FIR's could provide a limited communications facility to flights in the Tehran FIR.

ATFM measures may be imposed as necessary.

3.5.2 Loss of ability to provide control services

Should Tehran ACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the Tehran FIR.

In the event that Tehran ACC is evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication. The procedures to be adopted are detailed in the Tehran Contingency plan.

The Plan will be activated by promulgation of a NOTAM issued by (IRCAO) as far in advance as is practicable. However, when such prior notification is Impracticable for any reason, the Plan will be put into effect on notification by (IRCAO) and/or ICAO MID office

As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as, detailed in the Tehran Contingency Procedures – Appendix xx.' In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix XX.

3.6 FLIGHT CREW AND OPERATOR PROCEDURES

3.6.1 For flights within the Tehran FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45. A listening watch on these frequencies must be maintained.

3.6.2 For flights within the Tehran FIR – Westbound

------ ACC's will endeavour to provide an ATC service throughout the Tehran FIR as soon as evacuation commences. These procedures are detailed at Tehran Contingency Procedures – Appendix x

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAIL	AFTN
Ankara FIR	+903123980000	+903123980961		LTAAZRZX
	+903123981153			LTAAZQZX
	+903123981614			
	+903123980296			
Baghdad FIR	+9647901655461			
Bahrain ACC	+97317321080	+97317321029	bahatc@caa.gov.bh	OBBBZQZX
	+97317321081			OBBBZQZA
	+97317320486			
Baku FIR	+994124971673			UBBBZRZX
				UBBBZQZX
NAKHCEVAN	+994136446950			UBBNZPZX
ACC				UBBNZQZX
UAE ACC	00971	00971		OMAEZQZX
				OMAEYAYH
Kabul FIR	+873781338375			
Karachi FIR	+922199248038	+922134604322		OPKCZRZX
	+922199071953			OPKCZRZA
	+922199242148			
Kuwait FIR	+9654762994	+9654310096		
	+9654342476			

	+9654760763		
Muscat ACC	+96824519550	+96824519939	OOMMZQZX
	+96824519507		
Turkmenbashi	+99312396664	+99312331352	
FIR	+99312510162		
	+99312377750		
Yerevan FIR	+37410593479	+37410593304	
	+37410593260		
	+37410593304		

ICAO MID	0020	2	2267	0020 2 2267 4843	
	4845/46/	'41			
IATA	009626	5 569 8	728	OO962 6 560 4548	saidh@iata.org

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

3.6.3 For flights within the Tehran FIR – Eastbound

------ ACC will endeavour to provide an ATC service throughout the Bahrain FIR as soon as evacuation commences. These procedures are detailed at Bahrain Contingency Procedures – Appendix x

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

3.6.4 **For flights approaching the Tehran FIR when the contingency is activated**.

Not in Receipt of an ATC Clearance

In the event that Tehran ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Tehran FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Tehran FIR or to land at an appropriate airfield.

In receipt of an acknowledged ATC Clearance outside Tehran FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Tehran FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

3.7 TEHRAN FIR – CONTINGENCY ROUTE STRUCTURE

3.7.1 For activation within Tehran FIR

In a **limited service** contingency situation Tehran ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the

Tehran FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN

3.7.2 For activation within adjacent FIR

Unless instructed otherwise, flights entering the Tehran FIR should use the following contingency routes:

Communications with the next ATSU should be established at the earliest opportunity.

Entry FIR	Exit FIR	Entry	Route Designator	Exit FIX	Flight Levels	Remarks
		FIX				
		DASIS	UL333 R661	DULAV	FL330	
Ankara	Nakhchivan	ALRAM	G208 A422 R661	DULAV	FL310, FL410	ALRAM–UMH
						Eastbound (one way) the
						two way
		ALRAM	UL333 G482	MAGRI	FL330	
Ankara	Yerevan	ALRAM	G208 A422 G482	MAGRI	FL310, FL410	ALRAM–UMH
						Eastbound then two way
		ALRAM	-G208-G781-A416-W4	RIKOP	FL310, FL410	
Ankara	Ashgabat	DASIS	UL333-A416-W4	RIKOP	FL330	ALRAM-UMH
		DACIC	D.((0, 1, 41)(, 1)20, (1200, (1472	DEDDO	FT 220	Eastbound then two way
	Karachi	DASIS	R660-A416-N39-G208 G452	DERBO	FL330	
Ankara	bound to	ALRAM	G208-G208 UL124 - R661-	DERBO	FL310, FL410	ALRAM–UMH
Allkala	Delhi and		T210-G208 UL125-G452			Eastbound then two way
	beyond					
	beyond		G208-UL124 R661 -T210-	KEBUD		ALRAM-UMH
	Karachi		G208 UL125	REDUD	FL310, FL410	Eastbound then two way
Ankara	Bound to	ALRAM	G208-R654-G665	ASVIB		
	Mumbai	DASIS		ASVIB	FL330	
	and beyond					
			G208-UL223-G667- W31-	TULAX		
			B417			
			G208-UL223-W3-R659	MIDSI		
			G208 - UL223 W3 - G663	ALSER		
Ankara	Bahrain	ALRAM	G208-R654-R659	MIDSI		
			G208-R654-R659-G663	ALSER		ALRAM–UMH
					FL310, FL410	Eastbound then two way
			UL333 R660-R661-R654- R659	MIDSI	FL330	
		DASIS	UL333 R660-R661-R654-	ALSER	12000	
			R659-G663			
		ALRAM	G208-UL223-G667- W31-	TULAX	FL310, FL410	ALRAM–UMH
			B417			Eastbound then two way
Ankara	Kuwait	DASIS	UL333 R660-R661-R654-	TULAX	FL330	
			G667-W31-B417			
		ALRAM	G208-R654-R659-G666-	SIR	FL310, FL410	ALRAM–UMH
			UL223	~		Eastbound then two way
Ankara	Emirates	DASIS	UL333 R660-R661-R654-	SIR	FL330	
	•		R659-G666-			
			UL223			
			G208-UL223-W3-G666			ALRAM–UMH
	Landing	ALRAM	G208-R654-R659-G666		FL310, FL410	Eastbound then two way
	UAE	DASIS	UL333 R660-R661-R654-		FL330	
			R659-G666-	ORSAR		
			R660-B121-T210-G208-	KAMAR		
		DASIS	R205-G202		FL330	
			R660-A416-or MSD-G792	SOKAM		
4 1	V - h l			CHARN		
Ankara	Kabul		G208-G208/UL124-T210-	KAMAR		
			G208-		FL310, FL410	ALRAM–UMH
		ALRAM	R205-G202	COLLE	4	Eastbound then two way
			G208-G208/UL124-G781-	SOKAM		
	1	1	A416-or G792	CHARN		

Contingency Route Scheme

Ankara	Muscat	DASIS	R660-B121-T210-G208-W32- R654-	ORBIX	FL330	
		ALRAM	G208-R661-T210-G208- W32-R654	ORBIX	FL310, FL410	ALRAM–UMH Eastbound then two way
			G482-R661-R654-R659-	ALSER		
Yerevan	Bahrain	MAGRI	G663		FL390	
			G482-R661-R654-R659	MIDSI		
Yerevan	Kuwait	MAGRI	G482-R661-R654-G667- W30-B417	TULAX	FL390	
	Emirates	MAGRI	G482-R661-R654-R659- G666-W147 UL223	SIR	FL390	
Yerevan	Landing UAE	MAGRI	G482-R661-R654-R659- G666	ORSAR		
Yerevan	Karachi bound to Delhi and beyond	MAGRI	-B121-UL333-UN319-G452	DERBO		
	Karachi Bound to Mumbai and beyond		B121-A416-N39- G208/UL125-W32-UL124- UL124	KEBUD	FL390	
Yerevan	Kabul	MAGRI	B121-UL333-UN319-R794- G202- B121-A416-or G792	KAMAR	FL390	
			D121-A410-0F G/92	SOKAM CHARN		
Yerevan	Muscat	MAGRI	B121-A416-T212 G208 UL125-W32-R654	ORBIX	FL390	
		ULDUS	P574-R654-R659-G666-		FL370	
	Emirates	DULAV	UL223 R661 UL125-R654-R659-		FL290	
Baku Nakhchivan		LALDA	G666-UL223 G670-B121-G667-R654-	SIR	FL250	
			R659-G666-UL223			
	Landing	ULDUS	P574-R659-G666		FL370	
	UAE	DULAV	R661 UL125-R654-R659- G666	ORSAR	FL290	
		LALDA	G670-B121-G667-R654- R659-G666		FL250	
		ULDUS	P574-R659-G663 P574-R659	ALSER	FL370	
Baku Nakhchivan	Bahrain	DULAV	R661 UL125-R654-R659- G663	MIDSI MIDSI	FL290	
	2411411	LALDA	G670-B121-G667-R654- R659-G663	ALSER	FL250	
			G670-B121-G667-R654-R659	MIDSI	FL250	
Baku Nakhchivan	Kuwait	ULDUS	P574-SAV-G667-AWZ-W30- MAH-B417	TULAX	FL370	
		DULAV	R661 UL125-R654-G667- W30-B417		FL290	
		ULDUS	P574-B411		FL370	
Baku	Baghdad	DULAV	R661 UL125-R654-B411	PAXAT	FL290	
Nakhchivan		LALDA	G670-B121-G667-B411		FL250	
Baku Nakhabiyan	Mussot	ULDUS DULAV	UN319-A419-R654 R661-R660-A416-N39-G208- W32 R654	ORBIX	FL370 FL290	
Nakhchivan	Muscat	LALDA	W32-R654 G670-A416-N39-G208-W32-	UNDIA	FL250	
		ULDUS	R654- UN319-R794-G202	KAMAR SOKAM	FL370	
Baku	Kabul	ULDUS	R654- UN319-R794-G202 UN319-A416-or G792	SOKAM CHARN	FL370	
Baku Nakhchivan	Kabul	ULDUS DULAV	R654- UN319-R794-G202 UN319-A416-or G792 UL125-UP146-UL333- UN319-R794-G202-	SOKAM	FL290	
		ULDUS DULAV DULAV	R654- UN319-R794-G202 UN319-A416-or G792 UL125-UP146-UL333- UN319-R794-G202- R661-R660-B121	SOKAM CHARN	FL290 FL290	
Nakhchivan	Karachi bound to	ULDUS DULAV	R654- UN319-R794-G202 UN319-A416-or G792 UL125-UP146-UL333- UN319-R794-G202- R661-R660-B121 UL125 -UL333 - UN319 - G452	SOKAM CHARN KAMAR	FL290 FL290 FL290	
Nakhchivan Baku	Karachi bound to Delhi and	ULDUS DULAV DULAV DULAV ULDUS	R654- UN319-R794-G202 UN319-A416-or G792 UL125-UP146-UL333- UN319-R794-G202- R661-R660-B121 UL125 -UL333 - UN319 - G452 UN319-G452	SOKAM CHARN	FL290 FL290 FL290 FL370	
Nakhchivan	Karachi bound to Delhi and beyond	ULDUS DULAV DULAV ULDUS LALDA	R654- UN319-R794-G202 UN319-A416-or G792 UL125-UP146-UL333- UN319-R794-G202- R661-R660-B121 UL125 -UL333 - UN319 - G452 UN319-G452 G670-A416-N39-G208-G452	SOKAM CHARN KAMAR	FL290 FL290 FL290 FL370 FL250	
Nakhchivan Baku	Karachi bound to Delhi and beyond Karachi Bound to	ULDUS DULAV DULAV ULDUS LALDA DULAV	R654- UN319-R794-G202 UN319-A416-or G792 UL125-UP146-UL333- UN319-R794-G202- R661-R660-B121 UL125 - UL333 - UN319 - G452 UN319-G452 G670-A416-N39-G208-G452 R661-R660-A416- N39-G208-	SOKAM CHARN KAMAR	FL290 FL290 FL290 FL370 FL250 FL290	
Nakhchivan Baku	Karachi bound to Delhi and beyond Karachi	ULDUS DULAV DULAV ULDUS LALDA	R654- UN319-R794-G202 UN319-A416-or G792 UL125-UP146-UL333- UN319-R794-G202- R661-R660-B121 UL125 - UL333 - UN319 - G452 UN319-G452 G670-A416-N39-G208-G452 R661-R660-A416- N39-	SOKAM CHARN KAMAR DERBO	FL290 FL290 FL290 FL370 FL250	

Ashgabat	Karachi		G452	KEBUD	[
Asiigabat	Karacin	GIRUN	G792-G775-G208 UL125-or	DERBO	FL310	4
		onteri	G452		12010	
Ashgabat	Kabul	ORPAB	G775-G792- or A416	SOKAM	FL270	
-		GIRUN	G792 or A416	CHARN	FL310	
Ashgabat	Muscat	ORPAB	G775-W2-R654	ORBIX	FL270	
		GIRUN	G775-W2-R654		FL310	
Ashgabat	Emirates	RIKOP	A419	DARAX	FL280	
Ashgabat	Bahrain	RIKOP	A419-G663	ALSER	FL280	
		DWOD	A419-G663-R659	MIDSI	FL 200	
Ashgabat	Kuwait	RIKOP	A419-G663-G669 W4-A416-R660	NANPI	FL280	
Ashgabat Ashgabat	Baghdad Ankara	RIKOP RIKOP	W4-A416-K060 W4-A416-G781-G208-G781	DASIS BONAM	FL280 FL280	BONAM-UMH West
Asligadat		KIKUI				bound then two way
F • 4	Nakhchivan	DADAY	A419-W10-R659-R654-R661	DULAV	FL240,	
Emirates	Baku	DARAX	W32-G208-N39-R794	ULDUS	FL300, FL400	
Emirates	Yerevan	DARAX	A419-W10-R659-R654-	MAGRI	FL240,	
			R661-G482	_	FL300,	
					FL400	
Emirates	Ashgabat	DARAX	A419	RIKOP	FL270	
Emirates	Kabul	DARAX	A419-A453	PIRAN	FL270	
Emirates	Baghdad	DARAX	A419-W10-R659-G202-B411	PAXAT	FL240,FL300,	
					FL400	
			A419-W10-R659-R654-	DASIS		
-			R661-R660-		FL240,FL300,	
Emirates	Ankara	DARAX	A419-W10-R659-R654-	BONAM	FL400	
			G208-G781-			BONAM-UMH West
			A419-W10-W3-UL223-G781		*	bound then two way
Kuwait	Baku		B417-W30-G667-P574	ULDUS		
	Nakhchivan	TULAX	B417-W30-G667-R654-R661	DULAV	FL250	
Kuwait	Yerevan	TULAX	B417-W30-G667-R654-	MAGRI	FL250	
T 7 •4		NUANDA	R661-G482	DUVOD	FL 250	
Kuwait	Ashgabat	NANPI	G669-G663-A419	RIKOP	FL350	
Kuwait	Kabul	NANPI	G669-G452-A453	PIRAN	FL350	
V	Vanashi	NANDI	G669-G452	DERBO	EL 250	
Kuwait	Karachi	NANPI	G669-G452-UL124	KEBUD	FL350	
17	Managet	MANDI	G669-G452-R654-G665	ASVIB	EL 250	
Kuwait	Muscat	NANPI	G669-W10-R654 R784-W143-G666	ORBIX ORSAR	FL350	
Kuwait	Landing UAE	NANPI	R/84-W143-G000	UKSAK	FL350	
Kuwan	UAE	INALI	R784-W143-G666-UL223	SIR	112350	
Bahrain	Karachi	MIDSI	A453-G452	DERBO	FL190	
Damam	Karacin	MIDSI	A453-M561	ASVIB	11170	
	Baku	MIDSI	R659-R654-P574	ULDUS	FL200,FL340	
	Daku	ALSER	G663-R659-R654-P574	CLDCS	FL220,FL380	1
Bahrain	Nakhchivan	MIDSI	R659-R654-R661	DULAV	FL200,FL340	
	Nakiteinvan	ALSER	G663-R659-R654- R661	DOLAN	FL220,FL380	
		MIDSI	R659-R654-R661-G482		FL200,FL340	
Bahrain	Yerevan	ALSER	G663-R659-R654- R661-	MAGRI	FL220,FL380	
			G482		, 2000	
Bahrain	Ashgabat	MIDSI	R659-G663-A419	RIKOP	FL190	
	-	ALSER	G663-A419		FL250	1
Bahrain	Kabul	MIDSI	A453	PIRAN	FL190	
	Landing		B416-R784-W143-G666	ORSAR		
Bahrain	TIAE -					
	UAE			SIR	FL270	
	UAE	KUVER	B416-R784-W143-G666-	SIK	1 1270	
			UL223		11270	
		MIDSI	UL223 R659-R654-R661-R660	DASIS		
		MIDSI MIDSI	UL223 R659-R654-R661-R660 R659-R654-G208-G781		FL200,FL340	BONAM-UMH West
	UAE	MIDSI MIDSI MIDSI	UL223 R659-R654-R661-R660 R659-R654-G208-G781 R659-W3-UL223-G781	DASIS BONAM		BONAM-UMH West bound then two way
Bahrain		MIDSI MIDSI MIDSI ALSER	UL223 R659-R654-R661-R660 R659-R654-G208-G781 R659-W3-UL223-G781 G663-R659-R654-R661-R660	DASIS BONAM DASIS	FL200,FL340	bound then two way
	UAE	MIDSI MIDSI MIDSI	UL223 R659-R654-R661-R660 R659-R654-G208-G781 R659-W3-UL223-G781 G663-R659-R654-R661-R660 G663-R659-R654-G208-	DASIS BONAM		bound then two way BONAM-UMH West
	UAE	MIDSI MIDSI MIDSI ALSER ALSER	UL223 R659-R654-R661-R660 R659-R654-G208-G781 R659-W3-UL223-G781 G663-R659-R654-R661-R660 G663-R659-R654-G208- G781	DASIS BONAM DASIS	FL200,FL340	bound then two way
	UAE	MIDSI MIDSI MIDSI ALSER ALSER	UL223 R659-R654-R661-R660 R659-R654-G208-G781 R659-W3-UL223-G781 G663-R659-R654-R661-R660 G663-R659-R654-G208- G781 G663-W3-UL223-G781	DASIS BONAM DASIS	FL200,FL340 FL220,FL380	bound then two way BONAM-UMH West
Bahrain	UAE Ankara	MIDSI MIDSI MIDSI ALSER ALSER	UL223 R659-R654-R661-R660 R659-R654-G208-G781 R659-W3-UL223-G781 G663-R659-R654-R661-R660 G663-R659-R654-G208- G781	DASIS BONAM DASIS BONAM	FL200,FL340 FL220,FL380 FL270,	bound then two way BONAM-UMH West
	UAE	MIDSI MIDSI MIDSI ALSER ALSER	UL223 R659-R654-R661-R660 R659-R654-G208-G781 R659-W3-UL223-G781 G663-R659-R654-R661-R660 G663-R659-R654-G208- G781 G663-W3-UL223-G781	DASIS BONAM DASIS	FL200,FL340 FL220,FL380 FL270, FL370,	bound then two way BONAM-UMH West
Bahrain	UAE Ankara	MIDSI MIDSI ALSER ALSER MLOT	UL223 R659-R654-R661-R660 R659-R654-G208-G781 R659-W3-UL223-G781 G663-R659-R654-R661-R660 G663-R659-R654-G208- G781 G663-W3-UL223-G781 A791	DASIS BONAM DASIS BONAM	FL200,FL340 FL220,FL380 FL270, FL370, FL390	bound then two way BONAM-UMH West
Bahrain	UAE Ankara	MIDSI MIDSI MIDSI ALSER ALSER	UL223 R659-R654-R661-R660 R659-R654-G208-G781 R659-W3-UL223-G781 G663-R659-R654-R661-R660 G663-R659-R654-G208- G781 G663-W3-UL223-G781	DASIS BONAM DASIS BONAM	FL200,FL340 FL220,FL380 FL270, FL370, FL390 FL290,	bound then two way BONAM-UMH West
Bahrain	UAE Ankara	MIDSI MIDSI ALSER ALSER MLOT	UL223 R659-R654-R661-R660 R659-R654-G208-G781 R659-W3-UL223-G781 G663-R659-R654-R661-R660 G663-R659-R654-G208- G781 G663-W3-UL223-G781 A791	DASIS BONAM DASIS BONAM	FL200,FL340 FL220,FL380 FL270, FL370, FL390	bound then two way BONAM-UMH West

Muscat	Nakhchivan	ORBIX	R654-W32-G208-N39-A416-	DULAV	FL360	
Muscat	Yerevan	ORBIX	R661 R654-W32-G208-N39-A416- B121	MAGRI	FL360	
Muscat	Ashgabat	ORBIX	R654-W2-G775	ORPAB	FL360	
Muscat	Kabul	ORBIX	R654-W2-A453	PIRAN	FL360	
Muscat	Baghdad	ORBIX	-R654-G202-B411	PAXAT	FL360	
Wiuscat	Dagnuau	OKDIA	R654-W32-G208-N39-A416-	DASIS	TL300	
Muscat	Ankara	ORBIX	R660-			
			R654-W32-G208-T210- R661-G208-G781	BONAM	FL360	BONAM-UMH West bound then two way
Baghdad	Baku	PAXAT	B411-G202-G667-P574	ULDUS	FL270	
Baghdad	Yerevan	PAXAT	B411-G202-G667-R654-	MAGRI	FL270	
D I. J. J	A	DAVAT	R661-G482	DIVOD	EL 270	
Baghdad	Ashgabat	PAXAT	B411-G202-G663-A419	RIKOP	FL270	
Baghdad	Kabul	PAXAT	B411-G202	KAMAR	FL270	
	** ••	DAMAG	B411-G202-R654-G452-	DERBO		
Baghdad	Karachi	PAXAT	B411-G202-R654-UL124	KEBUD	FL270	
			B411-G202-R654-G665	ASVIB		
Baghdad	Muscat	PAXAT	B411-G202-R654	ORBIX	FL270	
	Landing		B411-G202-R659-G666	ORSAR		
Baghdad	UAE	PAXAT			FL270	
	UAE		B411-G202-R659-G666- UL223-	SIR		
		KAMAR	G202-R794-UN319-A416-	· · ·	FL380	
			R660			
Kabul	Ankara	SOKAM	A416-R660	DASIS	FL340	
		CHARN	G792-B411-A416-RR660		FL360	
		KAMAR	G202-R794-UN319		FL380	
Kabul	Baku	SOKAM	A416-UN319	ULDUS	FL340	1
		CHARN	G792-B411-A416-UN319		FL360	
		KAMAR	G202-R794-UN319-A416-		FL380	
		R ANNAR	R660-R661		11500	
Kabul	Nakhchivan	SOKAM	A416-R660-R661	DULAV	FL340	•
Kabui	Takituitvaii	CHARN		DOLAV	FL360	4
			G792-B411-A416-R660-R661		FL380	
		KAMAR	G202-R794-UN319-A416-		FL380	
V - h l V	\$7	CONTRACT	R660-G482	MACDI	FL 240	
Kabul	Yerevan	SOKAM	A416-R660-G482	MAGRI	FL340	
			CHARN	G792-B411-A416-R660-	Ť	FL360
			G482-	000.00		
		SOKAM	A416-G775	ORPAB	FL340	
			A416-G792	GIRUN		
Kabul	Ashgabat	CHARN	G792		FL360	
			G792-G775	ORPAB		
Kabul	Muscat	PIRAN	A453-W2-R654	ORBIX	FL200	
Kabul	UAE	PIRAN	A453-A419	DARAX	FL200	
Kabul	Bahrain	PIRAN	A453	MIDSI	FL200	
Kabul	Kuwait	PIRAN	A453-G452-G669	NANPI	FL200]
		KAMAR	G202-W6-W30-B417	TULAX	FL380	
Kabul	Baghdad	PIRAN	A453-G452-R654-G202-B411	PAXAT	FL200	
		KAMAR	G202-B411		FL380	
		ASVIB	G665-R654-W32-G208-		FL260	
			N39-R794			
	Baku	KEBUD	UL124-R654-W32-G208-	ULDUS	FL360	
			N39-R794-			Į
Karachi		DERBO	G452-G208-N39-R794		FL320	
	4	ASVIB	G665-R654-W32-G208-		FL260	
			N39-A416-R660-R661]
	Nakhchivan	KEBUD	UL124-R654-W32-G208-	DULAV	FL360	
			N39-A416-R660-R661			
		DERBO	G452-G208-N39-A416-R660- R661		FL320	
		ASVIB	G665-R654-W32-G208-		FL260	
Karachi	Yerevan	757 ID	N39-A416-B121		1 1200	
134140111	1 er evan	KEBUD	UL124-R654-W32-G208-	MAGRI	FL360	{
		KEDUD	N39-A416-B121	MAGNI	1.1200	
		DERBO	G452-G208-N39-A416-B121		FL320	1
Kong shi	Achech-4			ODDAD		
Karachi	Ashgabat	DERBO	G452-G775	ORPAB	FL320	{
1 7 1 •		KEBUD	G208-G775	ODDIV	FL360	
	Muscat	DERBO	G452-W2-R654	ORBIX	FL320	1
Karachi			N		TT 0 (0)	
Karachi	UAE	ASVIB DERBO	M561-W2-R654 G452-A453-A419	DARAX	FL260 FL320	

		ASVIB	M561-A419		FL260	
Karachi	Bahrain	DERBO	G452-A453	MIDSI	FL320	
		ASVIB	M561-A453		FL260	
		ASVIB	G665-R654-G452-G669		FL260	
Karachi	Kuwait	KEBUD	UL124-R654-G452-G669	NANPI	FL360	
		DERBO	G452-G669		FL320	
		ASVIB	G665-R654-G202-B411		FL260	
Karachi	Baghdad	KEBUD	UL124-R654-G202-B411	PAXAT	FL360	
		DERBO	G452-R654-G202-B411		FL320	
		ASVIB	G665-R654-W32-G208-		FL260	
			N39-A416-R660			
		KEBUD	UL124-R654-W32-G208-	DASIS	FL360	
Karachi	Ankara		N39-A416-R660	_		
		DERBO	G452-G208-N39-A416-R660-		FL320	
		ASVIB	G665-R654-W32-G208-		FL260	
			T210-R661-G208-G781			
		KEBUD	UL124-R654-W32-G208-	BONAM	FL360	
			T210-R661-G208-G781	4		
		DERBO	G452-G208-T210-R661-		FL320	
			G208-G781			

ADJACENT FIR	R FREQUENCIES AND	TELEPHONE NUMBERS	

ATS UNIT	RTF Call Sign	Fre	equency	Telephone NO
	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Main	133.100	
Baku	Baku RADAR	Stand by	133.300, 129.000,	+994124971673
			135.100	
	Yerevan RADAR	Main	128.800	+37410593304
Yerevan	1	Stand by	124.000	
Nakhchivan	Nakhchivan RADAR	Main	127.900	+994136446950
		Stand by	118.200	
	Ankara RADAR	Main	127.300	
Ankara	Via DASIS	Stand by	129.300, 122.275	+903123980000
	Ankara RADAR	Main	128.100	ext. 1153 or 1614
	Via BONAM,	Stand by	132.900, 129.450	+903123980961
	ALRAM			
Baghdad	Tehran Control	Main	123.000	+9647901655461
0		Stand by	123.525	
		Main	125.300	+9654762994
Kuwait	Kuwait RADAR	Stand by	124.800, 132.100	+9654342476
				+9654760763
		Main	132.120	+97317321080
Bahrain	Bahrain RADAR	Stand by	125.700	+97317321081
				+97317320486
		Main	132.150, 124.850	+97317321080
UAE	UAE RADAR	Stand by		+97317321081
				+97317320486
Muscat	Muscat CONTROL	Main	128.150, 119.800	+96824519550
		Stand by		+96824519507
Kabul	Kabul Information	Main	120.900, 128.500	+873761336375
		Stand by		
		Main	128.300	+922199248038
Karachi	Karachi Control	Stand by		+922199071953
				+922199242148
Ashgabat	Ashgabat RADAR	Main	135.200	
		Stand by	135.800	
Turkmenbashi	Turkmenbashi	Main		
	RADAR	Stand by		

# 3.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Tehran loses the ability to provide an ATC service in the FIR for an extended period, and contingency plans are in place to provide the service from an alternate location to backup ACC (located in IKIA).

The facility is established at another location IKIA but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Tehran facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Tehran FIR after several days. In the interim period no ATC service will be available and all flights will be required to route clear of the Tehran FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

# APPENDIX XX

### SAMPLE NOTAMS

### a) Avoidance of airspace

NOTAM......DUE TO DISRUPTION OF ATS IN THE TEHRAN FIR ALL ACFT ARE ADVISED TO AVOID THE FIR.

### b) Airspace available with limited ATS

NOTAM .....DUE TO ANTICIPATED DISRUPTION OF ATS IN THE TEHRAN FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

### c) Contingency plan activated

NOTAM ......DUE TO DISRUPTION OF ATS IN TEHRAN FIR ALL ACFT ARE ADVISED THAT THE Tehran FIR INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY TEHRAN AIRSPACE.

### d) Non adherence to the Contingency Plan

NOTAM .....OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE TEHRAN FIR.

### e) Avoidance of airspace

NOTAM......DUE TO TEHRAN ACC BUILDING EVACUATION ALL ACFT SHALL BE ADVISED TO AVOID TEHRAN FIR

# **CHAPTER 4: DETAILED PROCEDURES – BAGHDAD FIR**

4.1

4.3

# FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Baghdad FIR

4.2 FIRs WITH SUPPORTING PROCEDURES

Amman FIR Ankara FIR Damascus FIR Jeddah FIR Kuwait FIR Tehran FIR

# **NOTIFICATION PROCEDURES**

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

Note:- In the event of an evacuation, we must assume that the Tower at ORBI is also evacuated. There needs to be a system in place where we can initiate the evacuation messages via cell phone (we call Erbil tower, Najaf Tower and Basra Tower and they broadcast the evacuation message and implement the contingency routes, they will also need to issue the NOTAM and contact adjacent FIRs).

# 4.4 LIMITED SERVICE – PROCEDURES

# 4.4.1 Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Baghdad frequency normally provided by Baghdad Control will be delegated as appropriate to the other ATS units namely *Erbil, Najaf and Basra Towers*. Appropriate frequencies will be advised by Baghdad and the assisting ATS units.

Situations which could result in a Limited Service are:

Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)
- d) Data Lines (Loss of data lines between Baghdad Communications center and Baghdad ACC)

### Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

#### Staffing

Reduced Staffing Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

### Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

### 4.4.2 Disruption of ability to provide control services

Baghdad ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in emergency.

Traffic without a valid clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

#### Separation standards

Baghdad ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

### Contingency tracks

Dependant on the nature of the service limitation, Baghdad may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available.

#### Air Traffic Flow Management

Baghdad ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Baghdad ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units airspace.

### Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

### 4.5 NO SERVICE – PROCEDURES

### 4.5.1 Loss of ground/air communication capability

In the event of Baghdad ACC being unable to provide ground/air communications for Baghdad FIR *Erbil, Najaf and Basra Towers* will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
  - Transmitters (Loss of all Transmitters)
  - Receivers (Loss of all Receivers)
  - Aerials (Loss of all Aerials)
  - Data Lines (Loss of data lines)
- b) Propagation;
  - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.
- c) Staffing
  - No Staff
  - Illness (Seasonal Influenza)
  - Weather
  - Industrial Relations issues
- d) Evacuation of Baghdad ACC
  - Fire
  - Bomb threat

# Effect on flights

In the event of Baghdad ACC being unable to provide ground/air communications for a sustained period of time *Erbil*, *Najaf and Basrah Towers* in coordination with adjacent FIR's could provide a limited communications facility to flights in the Baghdad FIR.

ATFM measures may be imposed as necessary.

# 4.5.2 Loss of ability to provide control services

Should Baghdad ACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the Baghdad FIR.

In the event that Baghdad ACC is evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication. The procedures to be adopted are detailed in the Baghdad Contingency plan.

The Plan will be activated by promulgation of a NOTAM issued by (ICAA) as far in advance as is practicable. However, when such prior notification is Impracticable for any reason, the Plan will be put into effect on notification by (ICAA) and/or ICAO MID office, as authorized by Head of ICAA. It is expected that the civil aviation authorities concerned and the airline operators will fully cooperate to implement the Plan as soon as possible.

As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as, detailed in the Baghdad Contingency Procedures – Appendix xx.' In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix XX.

# 4.6 FLIGHT CREW AND OPERATOR PROCEDURES

# 4.6.1 For flights within the Baghdad FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5,123.45 *and the assigned Unit frequency*. A listening watch on these frequencies must be maintained.

# 4.6.2 For flights within the Baghdad FIR – Westbound

*Kuwait* ACC will endeavour to provide an ATC service throughout the Baghdad FIR as soon as evacuation commences. These procedures are detailed at Baghdad Contingency Procedures – Appendix x

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAIL	AFTN
Amman FIR	+ 962 64			

	451672						
Ankara FIR	+903123		+903	12	398	cellatin.brozkurt@dhmi.gov.tr	
	980290		0961				
Damascus FIR	+963	115	+963	11	540		
	400164		0312				
Jeddah FIR	+966	26					
	8550067						
Kuwait FIR	+965 434	32476					
	or	+965					
	4760463						
Tehran FIR	+982	144					
	544116						

ICAO MID	0020 2 2267 4845/46/41	0020 2 2267 4843	
IATA	OO962 6 569 8728	OO962 6 560 4548	saidh@iata.org

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

### 4.6.3 For flights within the Baghdad FIR – Eastbound

Ankara ACC will endeavour to provide an ATC service throughout the Baghdad FIR as soon as evacuation commences. These procedures are detailed at Baghdad Contingency Procedures – Appendix x

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

# 4.6.4 **For flights approaching the Baghdad FIR when the contingency is activated**.

Not in Receipt of an ATC Clearance

In the event that Baghdad ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Baghdad FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Baghdad FIR or to land at an appropriate airfield.

In receipt of an acknowledged ATC Clearance outside Baghdad FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Baghdad FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

# 4.7 BAGHDAD FIR – CONTINGENCY ROUTE STRUCTURE

# 4.7.1 For activation within Baghdad FIR

In a **limited service** contingency situation Baghdad ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the Baghdad FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN

# 4.7.2 For activation within adjacent FIR

Unless instructed otherwise, flights entering the Baghdad FIR should use the following contingency routes:

Communications with the next ATSU should be established at the earliest opportunity.

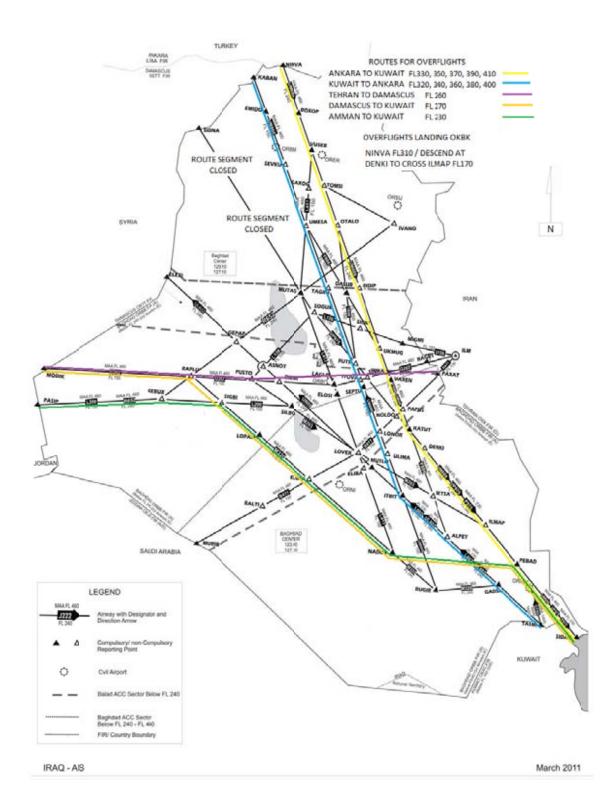
Entry	Exit FIR	Entry	Route	Exit	Flight L	evels	Frequencies
FIR		FIX	Designator	FIX	-		
Ankara	Kuwait	NINVA	UM688	SIDAD	FL330,	FL350,	NINVA 129.10
					FL370,	FL390,	VAXEN 123.0
					FL410		PEBAD 125.3
Damascus	Kuwait	MODIK	G202 M320	SIDAD	FL 270		MODIK 121.3
			UM688				RAPLU 129.10
							LOPAM 123.0
							PEBAD 125.3
Amman	Kuwait	PASIP	L200 M320	SIDAD	FL 230		PASIP 128.5
			UM688				GIBUX 129.10
							LOPAM 123.0
							PEBAD 125.3
Kuwait	Ankara	TASMI	UL602	KABAN	FL320,	FL340,	TASMI 123.0
					FL360,	FL380,	SEPTU 129.10
					FL400		UMESA 132.9
Kuwait	Damascus	TASMI	UL602	MODIK	FL280		TASMI 123.0
			M320 G202				ELODI 129.10
							MODIK 121.3
Kuwait	Amman	TASMI	UL602	PASIP	FL240		TASMI 123.0
			M320 L200				ELODI 129.10
							PASIP 128.5
Tehran	Damascus	PAXAT	DCT G202	MODIK	FL 260		PAXAT 129.1
							MODIK 121.3

For Transit Flights South North Except traffic Landing Kuwait

1) Note No ATC Service provided to any flight Departing from within the Baghdad FIR;

2) Adjacent FIRs to provide 10Minutes Longitudinal Separation between Aircraft at the same Flight Level, with similar or faster performance Aircraft proceeding; and

3) UP975 from SIDAD to UKMUGNOT USABLE Air Route Segment.



# 4.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Baghdad loses the ability to provide an ATC service in the FIR for an extended period, and contingency plans are in place to provide the service from an alternate location.

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Baghdad facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Baghdad FIR after several days. In the interim period no ATC service will be available and all flights will be required to route clear of the Baghdad FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

# APPENDIX XX

### SAMPLE NOTAMS

### a) Avoidance of airspace

NOTAM......DUE TO DISRUPTION OF ATS IN THE BAGHDAD FIR ALL ACFT ARE ADVISED TO AVOID THE FIR.

### b) Airspace available with limited ATS

NOTAM ......DUE TO ANTICIPATED DISRUPTION OF ATS IN THE BAGHDAD FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

### c) Contingency plan activated

NOTAM ......DUE TO DISRUPTION OF ATS IN BAGHDAD FIR ALL ACFT ARE ADVISED THAT THE Baghdad FIR INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY TEHRAN AIRSPACE.

# d) Non adherence to the Contingency Plan

NOTAM ......OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE BAGHDAD FIR.

# **CHAPTER 5: DETAILED PROCEDURES – AMMAN FIR**

# 5.1 FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Amman FIR

# 5.2 FIRS WITH SUPPORTING PROCEDURES

Jeddah FIR Riyadh ACC Baghdad FIR Damascus FIR Tel Aviv FIR Cairo FIR

5.3

# NOTIFICATION PROCEDURES

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

# **5.4 LIMITED SERVICE – PROCEDURES**

# 5.4.1 Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Amman frequency normally provided by Amman Control will be delegated as appropriate to the other ATS units namely ----- -----. Appropriate frequencies will be advised by Amman and the assisting stations.

Situations which could result in a Limited Service are:

### Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)
- d) Data Lines (Loss of data lines between Amman Communications center and Amman ACC)

### Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

### Staffing

Reduced Staffing Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

### Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

### 5.4.2 Disruption of ability to provide control services

Amman ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in emergency.

Traffic without a valid clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

# Separation standards

Amman ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

### Contingency tracks

Dependant on the nature of the service limitation, Amman may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available.

# Air Traffic Flow Management

Amman ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Amman ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units airspace.

# Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

# 5.5 NO SERVICE – PROCEDURES

### 5.5.1 Loss of ground/air communication capability

In the event of Amman ACC being unable to provide ground/air communications for Amman FIR ------ ATC Unit will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
  - Transmitters (Loss of all Transmitters)
  - Receivers (Loss of all Receivers)
  - Aerials (Loss of all Aerials)
  - Data Lines (Loss of data lines)
- b) Propagation;
  - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.
- c) Staffing
  - No Staff
  - Illness (Seasonal Influenza)
  - Weather
  - Industrial Relations issues
- d) Evacuation of Amman ACC
  - Fire
  - Bomb threat

# Effect on flights

In the event of Amman ACC being unable to provide ground/air communications for a sustained period of time ------ ATC Unit in coordination with adjacent FIR's could provide a limited communications facility to flights in the Amman FIR.

ATFM measures may be imposed as necessary.

# 5.5.2 Loss of ability to provide control services

Should Amman ACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the Amman FIR.

In the event that Amman ACC is evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication. The procedures to be adopted are detailed in the Jordan Contingency Plan.

The Plan will be activated by promulgation of a NOTAM issued by (CARC) as far in advance as is practicable. However, when such prior notification is Impracticable for any reason, the Plan will be put into effect on notification by (CARC) and/or ICAO MID office

As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as, detailed in the Amman Contingency Procedures – Appendix xx.' In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix  $\frac{XX}{X}$ .

# 5.6 FLIGHT CREW AND OPERATOR PROCEDURES

# 5.6.1 For flights within the Amman FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45. A listening watch on these frequencies must be maintained.

# 5.6.2 For flights within the Amman FIR – Westbound

**Cairo**, Damascus, Jeddah ACC and Tel Aviv ACC will endeavour to provide an ATC service throughout the Amman FIR as soon as evacuation commences. These procedures are detailed at Amman Contingency Procedures – Appendix x

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAIL	AFTN
Jeddah ACC	00966	00966		
Riyadh ACC	00966	00966		
Baghdad ACC				
Damascus				
ACC				
Tel Aviv ACC				
Cairo ACC				

ICAO MID	0020	2	2267	0020 2 2267 4843		
	4845/46	5/41				
IATA	00962	6 569 8	3728	00962 6 560 4548	saidh@iata.org	

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

### 5.6.3 For flights within the Amman FIR – Eastbound

**Cairo,** Damascus, Jeddah ACC and Tel Aviv ACC will endeavour to provide an ATC service throughout the Amman FIR as soon as evacuation commences. These procedures are detailed at Amman Contingency Procedures – Appendix x

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

### 5.6.4 For flights approaching the Amman FIR when the contingency is activated.

Not in Receipt of an ATC Clearance

In the event that Amman ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Amman FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Amman FIR or to land at an appropriate airfield.

In receipt of an acknowledged ATC Clearance outside Amman FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Amman FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

# 5.7 AMMAN FIR – CONTINGENCY ROUTE STRUCTURE

### 5.7.1 For activation within Amman FIR

In a **limited service** contingency situation Amman ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the Amman FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN

### 5.7.2 For activation within adjacent FIR

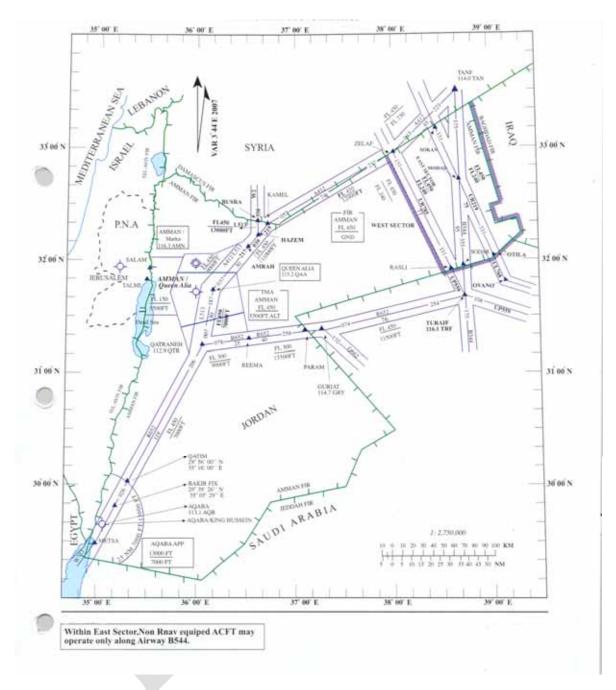
Unless instructed otherwise, flights entering the Amman FIR should use the following contingency routes:

# CONTINGENCY ROUTE STRUCTURE FOR AMMAN FIR

Present ATS	Contingency Routings	FIRs Involved
RouteEASTSECTOR:ATSroutesB544,UR219,UR785Incase of closure:these routes, all trafficwill have to be rerouted as follows:	<ul> <li>a) East Bound Traffic: all traffic has to follow the routes: L513 to BUSRA and HAZEM, A412/L513 to QAA–GRY, W333/R652 in JEDDAH FIR. Other traffic coming from the north through ZELAF or TANF will have to continue on A412/L513 to QAA–GRY, W333/R652 in JEDDAH FIR.</li> <li>b) West Bound Traffic: all traffic has to come through GRY/ ATS route R652 then on W333/A412/L513, GRY – QAA then L513 HAZEM to BUSRA and DAMASCUS FIR.</li> </ul>	• Damascus FIR • Jeddah FIR
WEST SECTOR:this sector has four outlets:North Border: ATS route A412/L513 and W2 with DAMASCUS in case of closure	<ul> <li>a) All west bound traffic has to go through TALMI. Or ATS route A412/L513 – QTR then ATS route R652 to METSA and CAIRO FIR.</li> <li>As for the east bound traffic it will, be through SALAM or METSA on route R652 - QTR, thereafter to QAA or to continue to GRY in JEDDAH.FIR.</li> </ul>	• Tel Aviv FIR • CAIRO FIR • JEDDAH FIR
West Border Air Corridors with TELAVIV FIR: in case of being closed, east bound traffic has to follow:	<b>b</b> ) A412/L513 to HAZEM then L513 to BUSRA and DAMASCUS or to continue on A412/L513 to ZELAF or TANF in DAMASCUS FIR. West bound traffic will use A412/L513 to QTR then R652 to METSA and CAIRO FIR. Arrivals have to come through A412/L513 or L513 - BUSRA and QAA or on R652 from CAIRO FIR through METSA.	<ul> <li>Damascus FIR</li> <li>Cairo FIR</li> </ul>
METSA and R652 to	Departures or arrivals have to use W2 to BUSRA – HAZEM – A412/L513 to QAA and vice versa. OR via TELAVIV FIR instead of L513 or A412	<ul> <li>Damascus FIR</li> <li>Tel Aviv FIR</li> </ul>
East border ATS route R652 QTR – PARAM – GRY in case of closure	c) East bound traffic has to use A412/L513 to ZELAF then UR785 to JEDDAH FIR. West bound traffic will proceed through OTILA to SOKAN UR219 to ZELAF then A412 to QAAVOR.	• DAMASCUS FIR • Jeddah FIR

Communications with the next ATSU should be established at the earliest opportunity.

Appendix



APPENDIX

# CONTINGENCY FREQUENCIES FOR CONTROL AND/OR FLIGHT MONITORING SERVICES

CONTINGENCY ROUTES IN AMMAN (CRJ)	ATS ROUTES	СОМ

### 5.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Jordan loses the ability to provide an ATC service in the Amman FIR for an extended period, and contingency plans are in place to provide the service from an alternate location.

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Amman facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Amman FIR within 48 hours. In the interim period no ATC service will be available and all flights will be required to route clear of the Amman FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

# APPENDIX XX

# SAMPLE NOTAMS

### a) Avoidance of airspace

NOTAM......DUE TO DISRUPTION OF ATS IN THE AMMAN FIR ALL ACFT ARE ADVISED TO AVOID THE FIR.

# b) Airspace available with limited ATS

NOTAM .....DUE TO ANTICIPATED DISRUPTION OF ATS IN THE AMMAN FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

### c) Contingency plan activated

NOTAM ......DUE TO DISRUPTION OF ATS IN AMMAN FIR ALL ACFT ARE ADVISED THAT THE AMMAN FIR INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY AMMAN AIRSPACE.

# d) Non adherence to the Contingency Plan

NOTAM .....OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE AMMAN FIR

# **CHAPTER 6: DETAILED PROCEDURES – KUWAIT FIR**

# 6.1 FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Kuwait FIR

### 6.2 FIRS WITH SUPPORTING PROCEDURES

Baghdad FIR Bahrain FIR Jeddah FIR Tehran FIR

### 6.3 NOTIFICATION PROCEDURES

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

# 6.4 LIMITED SERVICE – PROCEDURES

### 6.4.1 Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Kuwait frequency normally provided by Kuwait Control will be delegated as appropriate to the other ATS units namely ______. Appropriate frequencies will be advised by Kuwait and the assisting ATS units.

Situations which could result in a Limited Service are:

Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)
- d) Data Lines (Loss of data lines between Kuwait Communications center and Kuwait ACC)

### Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

Staffing

Reduced Staffing Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

### 6.4.2 Disruption of ability to provide control services

Kuwait ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in emergency.

Traffic without a valid clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

### Separation standards

Kuwait ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

### Contingency tracks

Dependant on the nature of the service limitation, Kuwait may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available.

### Air Traffic Flow Management

Kuwait ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Kuwait ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units airspace.

### Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

### 6.5 NO SERVICE – PROCEDURES

### 6.5.1 Loss of ground/air communication capability

In the event of Kuwait ACC being unable to provide ground/air communications for Kuwait FIR ------ ATC Unit will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
  - Transmitters (Loss of all Transmitters)
  - Receivers (Loss of all Receivers)

- Aerials (Loss of all Aerials)
- Data Lines (Loss of data lines)
- b) Propagation;
  - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.
- c) Staffing
  - No Staff
  - Illness (Seasonal Influenza)
  - Weather
  - Industrial Relations issues
- d) Evacuation of Kuwait ACC
  - Fire
  - Bomb threat

# Effect on flights

In the event of Kuwait ACC being unable to provide ground/air communications for a sustained period of time ------ ATC Unit in coordination with adjacent FIR's could provide a limited communications facility to flights in the Kuwait FIR.

ATFM measures may be imposed as necessary.

# 6.5.2 Loss of ability to provide control services

Should Kuwait ACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the Kuwait FIR.

In the event that Kuwait ACC is evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication. The procedures to be adopted are detailed in the Kuwait Contingency plan.

As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as, detailed in the Kuwait Contingency Procedures – Appendix xx.' In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix XX.

# 6.6 FLIGHT CREW AND OPERATOR PROCEDURES

# 6.6.1 For flights within the Kuwait FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45. A listening watch on these frequencies must be maintained.

### 6.6.2 For flights within the Kuwait FIR – Westbound

------ ACC's will endeavour to provide an ATC service throughout the Kuwait FIR as soon as evacuation commences. These procedures are detailed at Kuwait Contingency Procedures – Appendix x

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAIL	AFTN
Baghdad FIR				
Bahrain FIR				
Jeddah FIR		Ÿ		
Tehran FIR				~

ICAO MID	0020 2 2267 4845/46/41	0020 2 2267 4843	P
IATA	OO962 6 569 8728	OO962 6 560 4548	saidh@iata.org

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

### 6.6.3 For flights within the Kuwait FIR – Eastbound

------ ACC's will endeavour to provide an ATC service throughout the Kuwait FIR as soon as evacuation commences. These procedures are detailed at Kuwait Contingency Procedures – Appendix x

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

### 6.6.4 **For flights approaching the Kuwait FIR when the contingency is activated**.

Not in Receipt of an ATC Clearance

In the event that Kuwait ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Kuwait FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Kuwait FIR or to land at an appropriate airfield.

In receipt of an acknowledged ATC Clearance outside Kuwait FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Kuwait FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

### 6.7 KUWAIT FIR – CONTINGENCY ROUTE STRUCTURE

### 6.7.1 For activation within Kuwait FIR

In a **limited service** contingency situation Kuwait ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the Kuwait FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN

### 6.7.2 For activation within adjacent FIR

Unless instructed otherwise, flights entering the Kuwait FIR should use the following contingency routes:

Communications with the next ATSU should be established at the earliest opportunity.

### 6.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Kuwait loses the ability to provide an ATC service in the FIR for an extended period, and contingency plans are in place to provide the service from an alternate location.

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Kuwait facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Kuwait FIR within 48 hours. In the interim period no ATC service will be available and all flights will be required to route clear of the Baghdad FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

# APPENDIX XX

### SAMPLE NOTAMS

### a) Avoidance of airspace

NOTAM.....DUE TO DISRUPTION OF ATS IN THE KUWAIT FIR ALL ACFT ARE ADVISED TO AVOID THE FIR.

### b) Airspace available with limited ATS

NOTAM .....DUE TO ANTICIPATED DISRUPTION OF ATS IN THE KUWAIT FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

### c) Contingency plan activated

NOTAM ......DUE TO DISRUPTION OF ATS IN KUWAIT FIR ALL ACFT ARE ADVISED THAT THE Kuwait FIR INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY KUWAIT AIRSPACE.

### d) Non adherence to the Contingency Plan

NOTAM .....OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE KUWAIT FIR

# **CHAPTER 7: DETAILED PROCEDURES – BEIRUT FIR**

# 7.1 FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Beirut FIR

## 7.2 FIRS WITH SUPPORTING PROCEDURES

Damascus FIR Nicosia FIR

# 7.3 NOTIFICATION PROCEDURES

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

### 7.4 LIMITED SERVICE – PROCEDURES

### 7.4.1 Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Beirut frequency normally provided by Beirut Control will be delegated as appropriate to the other ATS units namely ______. Appropriate frequencies will be advised by Beirut and the assisting ATS units.

Situations which could result in a Limited Service are:

Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)
- d) Data Lines (Loss of data lines between Beirut Communications center and Beirut ACC)

### Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

### Staffing

Reduced Staffing Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

### Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

## 7.4.2 Disruption of ability to provide control services

Beirut ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in emergency.

Traffic without a valid clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

# Separation standards

Beirut ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

### Contingency tracks

Dependant on the nature of the service limitation, Beirut may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available.

# Air Traffic Flow Management

Beirut ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Beirut ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units airspace.

# Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

# 7.5 NO SERVICE – PROCEDURES

## 7.5.1 Loss of ground/air communication capability

In the event of Beirut ACC being unable to provide ground/air communications for Beirut FIR ------ ATC Unit will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
  - Transmitters (Loss of all Transmitters)
  - Receivers (Loss of all Receivers)
  - Aerials (Loss of all Aerials)
  - Data Lines (Loss of data lines)

- b) Propagation;
  - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.
- c) Staffing
  - No Staff
  - Illness (Seasonal Influenza)
  - Weather
  - Industrial Relations issues
- d) Evacuation of Beirut ACC
  - Fire
  - Bomb threat

# Effect on flights

In the event of Beirut ACC being unable to provide ground/air communications for a sustained period of time ------ ATC Unit in coordination with adjacent FIR's could provide a limited communications facility to flights in the Beirut FIR.

ATFM measures may be imposed as necessary.

# 7.5.2 Loss of ability to provide control services

Should Beirut ACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the Beirut FIR.

In the event that Beirut ACC is evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication. The procedures to be adopted are detailed in the Beirut Contingency plan.

As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as, detailed in the Beirut Contingency Procedures – Appendix xx.' In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix XX.

# 7.6 FLIGHT CREW AND OPERATOR PROCEDURES

# 7.6.1 For flights within the Beirut FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45. A listening watch on these frequencies must be maintained.

# 7.6.2 For flights within the Beirut FIR – Westbound

------ ACC's will endeavour to provide an ATC service throughout the Beirut FIR as soon as evacuation commences. These procedures are detailed at Beirut Contingency Procedures – Appendix x

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAII	4	AFTN
Damascus FIR					
Nicosia FIR					

ICAO MID	0020 2 2267 4845/46/41	0020 2 2267 4843	
IATA	00962 6 569 8728	OO962 6 560 4548	saidh@iata.org

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

# 7.6.3 For flights within the Beirut FIR – Eastbound

------ ACC's will endeavour to provide an ATC service throughout the Beirut FIR as soon as evacuation commences. These procedures are detailed at Beirut Contingency Procedures – Appendix x

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

# 7.6.4 For flights approaching the Beirut FIR when the contingency is activated.

Not in Receipt of an ATC Clearance

In the event that Beirut ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Beirut FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Beirut FIR or to land at an appropriate airfield.

# In receipt of an acknowledged ATC Clearance outside Beirut FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Beirut FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

# 7.7 BEIRUT FIR – CONTINGENCY ROUTE STRUCTURE

# 7.7.1 For activation within Beirut FIR

In a **limited service** contingency situation Beirut ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the Beirut FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN

# 7.7.2 For activation within adjacent FIR

Unless instructed otherwise, flights entering the Beirut FIR should use the following contingency routes:

Communications with the next ATSU should be established at the earliest opportunity.

# 7.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Beirut loses the ability to provide an ATC service in the FIR for an extended period, and contingency plans are in place to provide the service from an alternate location.

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Beirut facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Beirut FIR within 48 hours. In the interim period no ATC service will be available and all flights will be required to route clear of the Beirut FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

# APPENDIX XX

### SAMPLE NOTAMS

### a) Avoidance of airspace

NOTAM......DUE TO DISRUPTION OF ATS IN THE BEIRUT FIR ALL ACFT ARE ADVISED TO AVOID THE FIR.

### b) Airspace available with limited ATS

NOTAM ......DUE TO ANTICIPATED DISRUPTION OF ATS IN THE BEIRUT FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

### c) Contingency plan activated

NOTAM ......DUE TO DISRUPTION OF ATS IN BEIRUT FIR ALL ACFT ARE ADVISED THAT THE Beirut FIR INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY BEIRUT AIRSPACE.

### d) Non adherence to the Contingency Plan

NOTAM ......OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE BEIRUT FIR

# **CHAPTER 8: DETAILED PROCEDURES – TRIPOLI FIR**

# 8.1 FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Tripoli FIR

# 8.2 FIRs WITH SUPPORTING PROCEDURES

Algiers FIR Cairo FIR Khartoum FIR Malta FIR N'Djamena FIR Niamey UIR Nicosia FIR Tunis FIR

# 8.3 NOTIFICATION PROCEDURES

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

## **8.4 LIMITED SERVICE – PROCEDURES**

### 8.4.1 Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Tripoli frequency normally provided by Tripoli Control will be delegated as appropriate to the other ATS units namely ______. Appropriate frequencies will be advised by Tripoli and the assisting ATS units.

Situations which could result in a Limited Service are:

Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)
- d) Data Lines (Loss of data lines between Tripoli Communications center and Tripoli ACC)

### Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

### Staffing

Reduced Staffing

Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

# Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

# 8.4.2 Disruption of ability to provide control services

Tripoli ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in emergency.

Traffic without a valid clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

# Separation standards

Tripoli ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

# Contingency tracks

Dependant on the nature of the service limitation, Tripoli may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available.

### Air Traffic Flow Management

Tripoli ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Tripoli ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units airspace.

# Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

# **8.5 NO SERVICE – PROCEDURES**

# 8.5.1 Loss of ground/air communication capability

In the event of Tripoli ACC being unable to provide ground/air communications for Tripoli FIR ------ ATC Unit will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
  - Transmitters (Loss of all Transmitters)
  - Receivers (Loss of all Receivers)
  - Aerials (Loss of all Aerials)
  - Data Lines (Loss of data lines)
- b) Propagation;
  - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.
- c) Staffing
  - No Staff
  - Illness (Seasonal Influenza)
  - Weather
  - Industrial Relations issues
- d) Evacuation of Tripoli ACC
  - Fire
  - Bomb threat

# Effect on flights

In the event of Tripoli ACC being unable to provide ground/air communications for a sustained period of time ------ ATC Unit in coordination with adjacent FIR's could provide a limited communications facility to flights in the Tripoli FIR.

ATFM measures may be imposed as necessary.

# 8.5.2 Loss of ability to provide control services

Should Tripoli ACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the Tripoli FIR.

In the event that Tripoli ACC is evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication. The procedures to be adopted are detailed in the Tripoli Contingency plan.

As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as, detailed in the Tripoli Contingency Procedures – Appendix xx.' In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix XX.

# 8.6 FLIGHT CREW AND OPERATOR PROCEDURES

### 8.6.1 For flights within the Tripoli FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45. A listening watch on these frequencies must be maintained.

### 8.6.2 For flights within the Tripoli FIR – Westbound

----- ACC's will endeavour to provide an ATC service throughout the Tripoli FIR as soon as evacuation commences. These procedures are detailed at Tripoli Contingency Procedures – Appendix x

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAIL	AFTN
Algiers FIR				
Cairo FIR				
Khartoum FIR				
Malta FIR				
N'Djamena				
FIR				
Niamey UIR				
Nicosia FIR				
Tunis FIR				

ICAO MID	0020 2	2267	0020 2 2267 4843	
	4845/46/41	×		
IATA	00962 6 569 8	728	OO962 6 560 4548	saidh@iata.org

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

### 8.6.3 For flights within the Tripoli FIR – Eastbound

------ ACC's will endeavour to provide an ATC service throughout the Tripoli FIR as soon as evacuation commences. These procedures are detailed at Tripoli Contingency Procedures – Appendix x

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

# 8.6.4 **For flights approaching the Tripoli FIR when the contingency is activated**.

Not in Receipt of an ATC Clearance

In the event that Tripoli ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Tripoli FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Tripoli FIR or to land at an appropriate airfield.

In receipt of an acknowledged ATC Clearance outside Tripoli FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Tripoli FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

# 8.7 TRIPOLI FIR – CONTINGENCY ROUTE STRUCTURE

# 8.7.1 For activation within Tripoli FIR

In a **limited service** contingency situation Tripoli ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the Tripoli FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN

# 8.7.2 For activation within adjacent FIR

Unless instructed otherwise, flights entering the Tripoli FIR should use the following contingency routes:

Communications with the next ATSU should be established at the earliest opportunity.

# 8.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Tripoli loses the ability to provide an ATC service in the FIR for an extended period, and contingency plans are in place to provide the service from an alternate location.

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Tripoli facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Tripoli FIR within 48 hours. In the interim period no ATC service will be available and all flights will be required to route clear of the Tripoli FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

# APPENDIX XX

## SAMPLE NOTAMS

### a) Avoidance of airspace

NOTAM.....DUE TO DISRUPTION OF ATS IN THE TRIPOLI FIR ALL ACFT ARE ADVISED TO AVOID THE FIR.

### b) Airspace available with limited ATS

NOTAM ......DUE TO ANTICIPATED DISRUPTION OF ATS IN THE TRIPOLI FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

### c) Contingency plan activated

NOTAM ......DUE TO DISRUPTION OF ATS IN TRIPOLI FIR ALL ACFT ARE ADVISED THAT THE Tripoli FIR INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY TRIPOLI AIRSPACE.

### d) Non adherence to the Contingency Plan

NOTAM .....OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE TRIPOLI FIR

# **CHAPTER 9: DETAILED PROCEDURES – MUSCAT FIR**

9.1 FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Muscat FIR

# 9.2 FIRS WITH SUPPORTING PROCEDURES

Bahrain FIR Emirates FIR Jeddah FIR Karachi FIR Mumbai FIR Tehran FIR Sana'a FIR

# 9.3 NOTIFICATION PROCEDURES

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

# 9.4 LIMITED SERVICE – PROCEDURES

# 9.4.1 Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Muscat frequency normally provided by Muscat Control will be delegated as appropriate to the other ATS units namely ----- -----. Appropriate frequencies will be advised by Muscat and the assisting stations.

Situations which could result in a Limited Service are:

Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)
- d) Data Lines (Loss of data lines between Muscat Communications center and Muscat ACC)

## Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

# Staffing

Reduced Staffing Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

# 9.4.2 Disruption of ability to provide control services

Muscat ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in emergency.

Traffic without a valid clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

# Separation standards

Muscat ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

# Contingency tracks

Dependant on the nature of the service limitation, Muscat may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available.

# Air Traffic Flow Management

Muscat ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Muscat ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units airspace.

# Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

# 9.5 NO SERVICE – PROCEDURES

### 9.5.1 Loss of ground/air communication capability

In the event of Muscat ACC being unable to provide ground/air communications for Muscat FIR ------ ATC Unit will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
  - Transmitters (Loss of all Transmitters)
  - Receivers (Loss of all Receivers)
  - Aerials (Loss of all Aerials)
  - Data Lines (Loss of data lines)
- b) Propagation;
  - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.
- c) Staffing
  - No Staff
  - Illness (Seasonal Influenza)
  - Weather
  - Industrial Relations issues
- d) Evacuation of Muscat ACC
  - Fire
  - Bomb threat

### Effect on flights

In the event of Muscat ACC being unable to provide ground/air communications for a sustained period of time ------ ATC Unit in coordination with adjacent FIR's could provide a limited communications facility to flights in the Cairo FIR.

ATFM measures may be imposed as necessary.

# 9.5.2 Loss of ability to provide control services

Should Muscat ACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the Muscat FIR.

In the event that Muscat ACC is evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication. The procedures to be adopted are detailed in the Oman Contingency Plan.

The Plan will be activated by promulgation of a NOTAM issued by the Sultanate of Oman International NOTAM Office (NOF) as far in advance as is practicable. However, when such prior notification is impracticable for any reason, the Plan will be put into effect on notification by the designated authority, as authorized by the DGMAN. It is expected that the civil aviation authorities concerned, and the airline operators will fully cooperate to implement the Plan as soon as possible.

As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as, detailed in the Muscat Contingency Procedures – Appendix xx.' In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix  $\frac{XX}{X}$ .

# 9.6 FLIGHT CREW AND OPERATOR PROCEDURES

### 9.6.1 For flights within the Muscat FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45. A listening watch on these frequencies must be maintained.

### 9.6.2 For flights within the Muscat FIR – Westbound

Mumbai ACC, Karachi ACC, Sana'a ACC and Tehran ACC will endeavour to provide an ATC service throughout the Muscat FIR as soon as evacuation commences. These procedures are detailed at Muscat Contingency Procedures – Appendix x

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAIL	AFTN
Tehran ACC	0098 21	0098 21	maj.alireza@yahoo.com	OIIIZGZX
	44544116 or	44544117		
	44554060		alireza.majzoubi@gmail.com	
	44544133			
	(Sector			
	Controller)			
Karachi ACC	0092 21 9248	0092 21 9248	gmats@cyber.net.pk	OPKCZQZX
	756	758		OPKCZQZA
Mumbai	0091 22	0091 22	WSOMUM@AAI.AERO	VABFZQZX
ACC	26828088	26828066		VABFZQZA
Sana'a ACC	00967	00967 1344047	atccns@gmail.com	OYSNZQZX
	1345402/3			OYSNZQZA
Bahrain ACC	00973 1732	00973 1732	bahatc@caa.gov.bh	OBBBZQZX
	1080/1081	1029		OBBBZQZA
Emirates	0097125996969	0097125996850	atc@szc.gcaa.ae	OMAEZQZX
ACC		0097125996852	mdolbey@szc.gcaa.ae	OMAEYAYH
Jeddah ACC				

ICAO MID	0020	2	2267	0020 2 2267 4843	
					<u>}</u>

	4845/46/41		
IATA	OO962 6 569 8728	OO962 6 560 4548	saidh@iata.org

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

# 9.6.3 For flights within the Muscat FIR – Eastbound

Bahrain ACC, Emirates ACC and Sana'a ACC will endeavour to provide an ATC service throughout the Muscat FIR as soon as evacuation commences. These procedures are detailed at Bahrain Contingency Procedures – Appendix x

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

### 9.6.4 For flights approaching the Muscat FIR when the contingency is activated.

### Not in Receipt of an ATC Clearance

In the event that Cairo ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Muscat FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Muscat FIR or to land at an appropriate airfield.

### In receipt of an acknowledged ATC Clearance outside Muscat FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Muscat FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

# 9.7 MUSCAT FIR – CONTINGENCY ROUTE STRUCTURE

### 9.7.1 For activation within Muscat FIR

In a **limited service** contingency situation Muscat ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the Muscat FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN

# 9.7.2 For activation within adjacent FIR

Unless instructed otherwise, flights entering the Muscat FIR should use the following contingency routes:

## CONTINGENCY ROUTE STRUCTURE FOR MUSCAT FIR

ATS	DIRECTION	FL	NEXT ACC	COM

WAYPOINT		ASSIGNMENT		
RASKI/PARAR	WESTBOUND	240 (Muscat arrivals only) 300 and 380	UAE	
TOTOX REXOD LOTAV KITAL	WESTBOUND	220 (Muscat arrivals only) 320 and 400	UAE	
TAPDO	WESTBOUND	200 (Muscat arrivals only) 260 and340	UAE	
DENDA	WESTBOUND	180(Muscatarrivalsonly)280and360	UAE	
IMLOT	WESTBOUND (NOT FOR UAE ARRIVALS)	ALL LEVELS	UAE	
SOUTHBOUND TRAFFIC TO HAI VOR (ONLY FROM LABRI P304)	WESTBOUND	180 AND 280	SANA'A	
NORTHBOUND TRAFFIC TO MUSAP/SODEX	WESTBOUND	160/260	UAE	
DEPARTURES FROM MUSCAT VIA B400	WESTBOUND	240 and 300 cross 20nm south of IZXI 200 or below and to be level 20nm before KEBAS		
ASPUX	WESTBOUND	340ANDABOVE	BAHRAIN	

Communications with the next ATSU should be established at the earliest opportunity.

# APPENDIX

# CONTINGENCY FREQUENCIES FOR CONTROL AND/OR FLIGHT MONITORING SERVICES

ATS WAYPOINT	DIRECTION	FL ASSIGNMENT	NEXT ACC	СОМ
RASKI/PARAR	EASTBOUND		MUMBAI	
TOTOX REXOD	EASTBOUND		MUMBAI	
LOTAV KITAL				
ALPOR	EASTBOUND	330 AND 370	KARACHI	128.3, 123.7
DENDA	EASTBOUND		TEHRAN	
IMLOT	EASTBOUND		TEHRAN	
ASPUX	EASTBOUND		MUMBAI	

# 9.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Muscat loses the ability to provide an ATC service in the Muscat FIR for an extended period, and contingency plans are in place to provide the service from an alternate location.

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Muscat facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Muscat FIR within 48 hours. In the interim period no ATC service will be available and all flights will be required to route clear of the Muscat FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

# APPENDIX XX

### SAMPLE NOTAMS

### a) Avoidance of airspace

NOTAM.....DUE TO DISRUPTION OF ATS IN THE MUSCAT FIR ALL ACFT ARE ADVISED TO AVOID THE FIR.

### b) Airspace available with limited ATS

NOTAM .....DUE TO ANTICIPATED DISRUPTION OF ATS IN THE MUSCAT FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

#### c) Contingency plan activated

NOTAM ......DUE TO DISRUPTION OF ATS IN MUSCAT FIR ALL ACFT ARE ADVISED THAT THE Cairo FIR INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY MUSCAT AIRSPACE.

## d) Non adherence to the Contingency Plan

NOTAM .....OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE MUSCAT FIR.

# **CHAPTER 10: DETAILED PROCEDURES – JEDDAH FIR**

10.1

# FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Jeddah FIR

### 10.2

# FIRs WITH SUPPORTING PROCEDURES

Amman FIR Asmara FIR Bahrain FIR Baghdad FIR Cairo FIR Khartoum FIR Kuwait FIR Sana'a FIR

# 10.3 NOTIFICATION PROCEDURES

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

# **10.4 LIMITED SERVICE – PROCEDURES**

# 10.4.1 Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Jeddah frequency normally provided by Jeddah Control will be delegated as appropriate to the other ATS units namely ______. Appropriate frequencies will be advised by Jeddah and the assisting ATS units.

Situations which could result in a Limited Service are:

Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)
- d) Data Lines (Loss of data lines between Jeddah Communications center and Jeddah ACC)

# Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

# Staffing

Reduced Staffing Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

## Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

# **10.4.2** Disruption of ability to provide control services

Jeddah ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in emergency.

Traffic without a valid clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

# Separation standards

Jeddah ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

### Contingency tracks

Dependant on the nature of the service limitation, Jeddah may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available.

### Air Traffic Flow Management

Jeddah ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Jeddah ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units airspace.

# Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

### **10.5 NO SERVICE – PROCEDURES**

### **10.5.1** Loss of ground/air communication capability

In the event of Tripoli ACC being unable to provide ground/air communications for Jeddah FIR ------ ATC Unit will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
  - Transmitters (Loss of all Transmitters)
  - Receivers (Loss of all Receivers)
  - Aerials (Loss of all Aerials)
  - Data Lines (Loss of data lines)
- b) Propagation;
  - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.
- c) Staffing
  - No Staff
  - Illness (Seasonal Influenza)
  - Weather
  - Industrial Relations issues
- d) Evacuation of Jeddah ACC
  - Fire
  - Bomb threat

# Effect on flights

In the event of Jeddah ACC being unable to provide ground/air communications for a sustained period of time ------ ATC Unit in coordination with adjacent FIR's could provide a limited communications facility to flights in the Jeddah FIR.

ATFM measures may be imposed as necessary.

# **10.5.2** Loss of ability to provide control services

Should Jeddah ACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the Jeddah FIR.

In the event that Jeddah ACC are evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication. The procedures to be adopted are detailed in the Jeddah Contingency plan.

As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as, detailed in the Jeddah Contingency Procedures – Appendix xx.' In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix XX.

# **10.6 FLIGHT CREW AND OPERATOR PROCEDURES**

## **10.6.1** For flights within the Jeddah FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45. A listening watch on these frequencies must be maintained.

### **10.6.2** For flights within the Jeddah FIR – Westbound

------ ACC's will endeavour to provide an ATC service throughout the Jeddah FIR as soon as evacuation commences. These procedures are detailed at Jeddah Contingency Procedures – Appendix x

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAIL	AFTN
Amman FIR				
Asmara FIR				
Bahrain FIR				
Baghdad FIR				
Cairo FIR				
Khartoum FIR				
Kuwait FIR				
Sana'a FIR				

ICAO MID	0020 2 2267 4845/46/41	0020 2 2267 4843	
IATA	00962 6 569 8728	OO962 6 560 4548	saidh@iata.org

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

### 10.6.3 For flights within the Jeddah FIR – Eastbound

------ ACC's will endeavour to provide an ATC service throughout the Jeddah FIR as soon as evacuation commences. These procedures are detailed at Jeddah Contingency Procedures – Appendix x

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

# 10.6.4 For flights approaching the Jeddah FIR when the contingency is activated.

Not in Receipt of an ATC Clearance

In the event that Jeddah ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Jeddah FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Jeddah FIR or to land at an appropriate airfield.

In receipt of an acknowledged ATC Clearance outside Jeddah FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Jeddah FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

# **10.7 JEDDAH FIR – CONTINGENCY ROUTE STRUCTURE**

## **10.7.1** For activation within Jeddah FIR

In a **limited service** contingency situation Jeddah ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the Jeddah FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN

# 10.7.2 For activation within adjacent FIR

Unless instructed otherwise, flights entering the Jeddah FIR should use the following contingency routes:

Communications with the next ATSU should be established at the earliest opportunity.

# **10.8 LONG TERM CONTINGENCY ARRANGEMENTS**

In the event that Jeddah loses the ability to provide an ATC service in the FIR for an extended period, and contingency plans are in place to provide the service from an alternate location.

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Jeddah facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Jeddah FIR within 48 hours. In the interim period no ATC service will be available and all flights will be required to route clear of the Jeddah FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

# APPENDIX XX

### SAMPLE NOTAMS

### a) Avoidance of airspace

NOTAM.....DUE TO DISRUPTION OF ATS IN THE JEDDAH FIR ALL ACFT ARE ADVISED TO AVOID THE FIR.

### b) Airspace available with limited ATS

NOTAM ......DUE TO ANTICIPATED DISRUPTION OF ATS IN THE JEDDAH FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

### c) Contingency plan activated

NOTAM ......DUE TO DISRUPTION OF ATS IN JEDDAH FIR ALL ACFT ARE ADVISED THAT THE Tripoli FIR INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY JEDDAH AIRSPACE.

### d) Non adherence to the Contingency Plan

NOTAM .....OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE JEDDAH FIR

# **CHAPTER 11: DETAILED PROCEDURES – KHARTOUM FIR**

# 11.1 FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Khartoum FIR

# 11.2 FIRS WITH SUPPORTING PROCEDURES

Cairo FIR Jeddah FIR Ndjamena FIR Tripoli FIR Asmara FIR Addis Ababa FIR Nairobi FIR Entebbe FIR Kinshasa FIR Brazzaville ACC

# 11.3 NOTIFICATION PROCEDURES

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

# 11.4 LIMITED SERVICE – PROCEDURES

## 11.4.1 Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Khartoum frequency normally provided by Khartoum Control will be delegated as appropriate to the other ATS units namely ----- -----. Appropriate frequencies will be advised by Cairo and the assisting stations.

Situations which could result in a Limited Service are:

Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)
- d) Data Lines (Loss of data lines between Khartoum Communications center and Khartoum ACC )

# Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

### Staffing

Reduced Staffing Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

### Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

### **11.4.2** Disruption of ability to provide control services

Khartoum ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in emergency.

Traffic without a valid clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

### Separation standards

Khartoum ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

## Contingency tracks

Dependant on the nature of the service limitation, Khartoum may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available.

### Air Traffic Flow Management

Khartoum ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Khartoum ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units airspace.

### Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

# **11.5 NO SERVICE – PROCEDURES**

# **11.5.1** Loss of ground/air communication capability

In the event of Khartoum ACC being unable to provide ground/air communications for Khartoum FIR ------ ATC Unit will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
  - Transmitters (Loss of all Transmitters)
  - Receivers (Loss of all Receivers)
  - Aerials (Loss of all Aerials)
  - Data Lines (Loss of data lines)
- b) Propagation;
  - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.
- c) Staffing
  - No Staff
  - Illness (Seasonal Influenza)
  - Weather
  - Industrial Relations issues
- d) Evacuation of Khartoum ACC
  - Fire
  - Bomb threat

# Effect on flights

In the event of Khartoum ACC being unable to provide ground/air communications for a sustained period of time ------ ATC Unit in coordination with adjacent FIR's could provide a limited communications facility to flights in the Cairo FIR.

ATFM measures may be imposed as necessary.

### **11.5.2** Loss of ability to provide control services

Should Khartoum ACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the Khartoum FIR.

In the event that Khartoum ACC is evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication. The procedures to be adopted are detailed in the Sudan Contingency Plan. The Plan will be activated by promulgation of a NOTAM issued by the Sudanese International NOTAM Office (NOF) as far in advance as is practicable. However, when such prior notification is impracticable for any reason, the Plan will be put into effect on notification by the designated authority, as authorized by the DGCA. It is expected that the civil aviation authorities concerned, and the airline operators will fully cooperate to implement the Plan as soon as possible.

As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as, detailed in the Khartoum Contingency Procedures – Appendix xx.' In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix  $\frac{XX}{X}$ .

# 11.6 FLIGHT CREW AND OPERATOR PROCEDURES

# 11.6.1 For flights within the Khartoum FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45. A listening watch on these frequencies must be maintained.

# 11.6.2 For flights within the Khartoum FIR – Westbound

Jeddah ACC, Asmara ACC, Addis Ababa ACC, Nairobi ACC and Entebbe ACC will endeavour to provide an ATC service throughout the Khartoum FIR as soon as evacuation commences. These procedures are detailed at Cairo Contingency Procedures – Appendix x

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAIL	AFTN
Cairo ACC	TBN	Fax: (20) 2-	E-mail: egoca@idsc.gov.eg	HECAYAYX
		2665435		
Tripoli ACC	TBN	Fax: (218)	TBN	HLLTYAYX
		37454		
Jeddah ACC	TBN	Fax: (966) 2-	TBN	OEJDYAYX
		6401477		
Ndjamena	+253522520830	+253522526231	TBN	TBN
ACC				
Asmara ACC	(291) 1-124334	Fax: (291) 1-	TBN	HHAAYAYX
		181255		
Addis Ababa	TBN	Fax: (251) 1-	E-mail: civil-	HAAAYAYX
ACC		612533	aviation@telecom.net.et	
Nairobi ACC	TBN	Fax: (254) 20-	E-mail: info@kcaa.or.ke	HKNCYAYD

		822300		
Entebbe ACC				
Kinshasa ACC				
Brazzaville ACC	+242055478182	+242069920433	TBN	FCCCZRZX

ICAO MID	0020 2 2	267	0020 2 2267 4843	
	4845/46/41			
IATA	OO962 6 569 8728	3	OO962 6 560 4548	saidh@iata.org

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

# 11.6.3 For flights within the Khartoum FIR – Eastbound

Tripoli ACC, Ndjamena ACC, Kinshasa and Brazzaville ACC will endeavour to provide an ATC service throughout the Khartoum FIR as soon as evacuation commences. These procedures are detailed at Bahrain Contingency Procedures – Appendix x

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

# 11.6.4 For flights approaching the Khartoum FIR when the contingency is activated.

# Not in Receipt of an ATC Clearance

In the event that Khartoum ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Cairo FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Khartoum FIR or to land at an appropriate airfield.

### In receipt of an acknowledged ATC Clearance outside Khartoum FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Khartoum FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

# 11.7 Khartoum FIR – CONTINGENCY ROUTE STRUCTURE

# **11.7.1** For activation within Khartoum FIR

In a **limited service** contingency situation Khartoum ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the Khartoum FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN

### **11.7.2** For activation within adjacent FIR

Unless instructed otherwise, flights entering the Khartoum FIR should use the following contingency routes:

# INTERNATIONAL ROUTE STRUCTURE AND COMMUNICATIONS FOR TRANSIT OF THE KHARTOUM FIR WHEN NO ATS AVAILABLE IN SUDAN AIRSPACE

Contingency Routes Khartoum (CRK)	ATS Route	Direction	FL Assignment (FLAS)	ACCs	COM (Frequency Details in Appendix X)
CRK	UR611	N/S One way	Odd F370 ,F350 ,F330	CAIRO	HF, VHF
CRK	UB612	N/S Two ways	Odd F330 ,F350 Even F320,F360	CAIRO	HF, VHF
CRK	UA451	N/S Two ways	Odd F370 ,F350 ,F330 Even F300	CAIRO	HF, VHF
CRK	UG660	E/W Two ways	Even F400 ,F340 ,F280 Odd F290,F310	CAIRO	HF, VHF
CRK	UB736	E/W Two ways	Even F340 ,F260 Odd F390,F410	NIROBI	HF, VHF
CRK	UB527	N/S Two ways	Odd F370 Even F380	NIROBI	HF, VHF
CRK	UT267	E/W One way	Even F400,F340,F280	CAIRO	HF, VHF
CRK	UT124	E/W One way	Even F320, F360	NIROBI	HF, VHF

Communications with the next ATSU should be established at the earliest opportunity.

APPENDIX

CONTINGENCY FREQUENCIES FOR CONTROL AND/OR FLIGHT MONITORING SERVICES

CONTINGENCY ROUTE KHARTOUM (CRK)	ATS ROUTE	ACC	СОМ
CRK	UR611	CAIRO	HF, VHF HF 11300, VHF: Primary 129.4 MHz Secondary 130.9 MHz

CRK	UB612	CAIRO	HF, VHF HF 11300, VHF: Primary 129.4 MHz Secondary 130.9 MHz
CRK	UB612 SOUTH SECTOR	NAIROBI	HF, VHF HF 11300, VHF: Primary 121.3 MHz
CRK	UB736	NAIROBI	HF, VHF HF 11300, VHF: Primary 129.4 MHz Secondary 130.9 MHz,
CRK	UA451	CAIRO	HF, VHF HF 11300, VHF: Primary 129.4 MHz Secondary 130.9 MHz,
CRK	UG660	CAIRO	HF, VHF HF 11300, VHF: Primary 129.4 MHz/ Secondary 130.9 MHZ
CRK	UB736	NAIROBI	HF, VHF HF 11300, VHF: Primary 121.3 MHz
CRK	UB527	NAIROBI	HF, VHF HF 11300, VHF: Primary 121.3 MHz
CRK	UT124	CAIRO	HF, VHF HF 11300, VHF: Primary 121.3 MHz/ Secondary 130.9 MHz
CRK	UM863	CAIRO	HF, VHF HF 11300, VHF: Primary 121.3 MHz Secondary 130.9 MHz

# 11.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Sudan loses the ability to provide an ATC service in the Khartoum FIR for an extended period, and contingency plans are in place to provide the service from an alternate location.

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Khartoum facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Khartoum FIR within 48 hours. In the interim period no ATC service will be available and all flights will be required to route clear of the Cairo FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

# APPENDIX XX

# SAMPLE NOTAMS

# a) Avoidance of airspace

NOTAM......DUE TO DISRUPTION OF ATS IN THE KHARTOUM FIR ALL ACFT ARE ADVISED TO AVOID THE FIR.

### b) Airspace available with limited ATS

NOTAM ......DUE TO ANTICIPATED DISRUPTION OF ATS IN THE KHARTOUM FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

### c) Contingency plan activated

NOTAM ......DUE TO DISRUPTION OF ATS IN KHARTOUM FIR ALL ACFT ARE ADVISED THAT THE SUDANESE INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY SUDANESE AIRSPACE.

### d) Non adherence to the Contingency Plan

NOTAM .....OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE KHARTOUM FIR

# **CHAPTER 8: DETAILED PROCEDURES – DAMASCUS FIR**

12.1 FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Damascus FIR

12.2 FIRS WITH SUPPORTING PROCEDURES

Amman FIR Ankara FIR Baghdad FIR Beirut FIR Nicosia FIR

# 12.3 NOTIFICATION PROCEDURES

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

# **12.4 LIMITED SERVICE – PROCEDURES**

### **12.4.1** Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Damascus frequency normally provided by Damascus Control will be delegated as appropriate to the other ATS units namely ______. Appropriate frequencies will be advised by Damascus and the assisting ATS units.

Situations which could result in a Limited Service are:

Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)
- d) Data Lines (Loss of data lines between Damascus Communications center and Damascus ACC

# Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

### Staffing

Reduced Staffing Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

### Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

### **12.4.2** Disruption of ability to provide control services

Damascus ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. Enroute reclearance of such traffic shall not be permitted except in emergency.

Traffic without a valid clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

### Separation standards

Damascus ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

## Contingency tracks

Dependant on the nature of the service limitation, Damascus may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available.

### Air Traffic Flow Management

Damascus ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Damascus ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units airspace.

### Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

# **12.5 NO SERVICE – PROCEDURES**

# **12.5.1** Loss of ground/air communication capability

In the event of Damascus ACC being unable to provide ground/air communications for Damascus FIR ------ ATC Unit will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
  - Transmitters (Loss of all Transmitters)
  - Receivers (Loss of all Receivers)
  - Aerials (Loss of all Aerials)
  - Data Lines (Loss of data lines)
- b) Propagation;
  - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.
- c) Staffing
  - No Staff
  - Illness (Seasonal Influenza)
  - Weather
  - Industrial Relations issues
- d) Evacuation of Damascus ACC
  - Fire
  - Bomb threat

# Effect on flights

In the event of Damascus ACC being unable to provide ground/air communications for a sustained period of time ------ ATC Unit in coordination with adjacent FIR's could provide a limited communications facility to flights in the Damascus FIR.

ATFM measures may be imposed as necessary.

### **12.5.2** Loss of ability to provide control services

Should Damascus ACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the Damascus FIR.

In the event that Damascus ACC is evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication. The procedures to be adopted are detailed in the Damascus Contingency plan. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as, detailed in the Damascus Contingency Procedures – Appendix xx.' In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix XX.

#### 12.6 FLIGHT CREW AND OPERATOR PROCEDURES

#### **12.6.1** For flights within the Damascus FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45. A listening watch on these frequencies must be maintained.

#### 12.6.2 For flights within the Damascus FIR – Westbound

------ ACC's will endeavour to provide an ATC service throughout the Damascus FIR as soon as evacuation commences. These procedures are detailed at Damascus Contingency Procedures – Appendix x

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAIL	AFTN
Amman FIR				
Ankara FIR				
Baghdad FIR				
Beirut FIR				
Nicosia FIR				

ICAO MID	0020 2 2267 4845/46/41	0020 2 2267 4843	
IATA	00962 6 569 8728	OO962 6 560 4548	saidh@iata.org

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

#### 12.6.3 For flights within the Damascus FIR – Eastbound

------ ACC's will endeavour to provide an ATC service throughout the Damascus FIR as soon as evacuation commences. These procedures are detailed at Damascus Contingency Procedures – Appendix x

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

#### 12.6.4 For flights approaching the Damascus FIR when the contingency is activated.

Not in Receipt of an ATC Clearance

In the event that Damascus ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Damascus FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Damascus FIR or to land at an appropriate airfield.

In receipt of an acknowledged ATC Clearance outside Damascus FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Damascus FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

#### 12.7 DAMASCUS FIR – CONTINGENCY ROUTE STRUCTURE

#### 12.7.1 For activation within Damascus FIR

In a **limited service** contingency situation Damascus ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the Damascus FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN

#### 12.7.2 For activation within adjacent FIR

Unless instructed otherwise, flights entering the Damascus FIR should use the following contingency routes:

Communications with the next ATSU should be established at the earliest opportunity.

#### 12.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Damascus loses the ability to provide an ATC service in the FIR for an extended period, and contingency plans are in place to provide the service from an alternate location.

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Damascus facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Damascus FIR within 48 hours. In the interim period no ATC service will be available and all flights will be required to route clear of the Damascus FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

#### APPENDIX XX

#### SAMPLE NOTAMS

#### a) Avoidance of airspace

NOTAM......DUE TO DISRUPTION OF ATS IN THE DAMASCUS FIR ALL ACFT ARE ADVISED TO AVOID THE FIR.

#### b) Airspace available with limited ATS

NOTAM ......DUE TO ANTICIPATED DISRUPTION OF ATS IN THE DAMASCUS FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

#### c) Contingency plan activated

NOTAM ......DUE TO DISRUPTION OF ATS IN DAMASCUS FIR ALL ACFT ARE ADVISED THAT THE Damascus FIR INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY DAMASCUS AIRSPACE.

#### d) Non adherence to the Contingency Plan

NOTAM .....OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE DAMASCUS FIR

## **CHAPTER 13: DETAILED PROCEDURES – EMIRATES FIR**

**13.1 FIR FOR WHICH THE CONTINGENCY PLAN APPLIES** 

Emirates FIR

13.2 FIRs WITH SUPPORTING PROCEDURES

Bahrain FIR Muscat FIR Qatar TMA Tehran FIR

## 13.3 NOTIFICATION PROCEDURES

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the Emirates ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

## **13.4 LIMITED SERVICE – PROCEDURES**

## **13.4.1** Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Emirates frequency normally provided by Emirates Control will be delegated as appropriate to Muscat ACC and Bahrain ACC. The Appropriate frequencies will be advised by Emirates ACC and the assisting ATSUs.

Situations which could result in a Limited Service are:

Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)

d) Data Lines (Loss of data lines between Emirates Communications center and Emirates ACC)

#### Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

#### Staffing

Reduced Staffing Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

#### Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

#### 13.4.2 Disruption of the ability to provide control services

Emirates ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in an emergency.

Traffic without a valid clearance may be subject to tactical traffic management measures to meet the requirements of the service limitation.

#### Separation standards

Emirates ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

#### Contingency tracks

Dependant on the nature of the service limitation, Emirates ACC may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available..

#### Air Traffic Flow Management

Emirates ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Emirates ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units' airspace.

#### Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

#### 13.5 NO SERVICE – PROCEDURES

#### **13.5.1** Loss of ground/air communication capability

In the event of Emirates ACC being unable to provide ground/air communications for the Emirates FIR, Emirates ACC will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
  - Transmitters (Loss of all Transmitters)
  - Receivers (Loss of all Receivers)
  - Aerials (Loss of all Aerials)
  - Data Lines (Loss of data lines)
- b) Propagation;
  - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.
- c) Staffing
  - No Staff
  - Illness (Seasonal Influenza)
  - Weather
  - Industrial Relations issues
- d) Evacuation of Emirates ACC
  - Fire
  - Bomb threat

#### Effect on flights

In the event of Emirates ACC being unable to provide ground/air communications for a sustained period of time, Muscat ACC and Bahrain ACC, in coordination with adjacent FIR's, could provide a limited communications facility to flights in the Emirates FIR.

ATFM measures may be imposed as necessary.

#### **13.5.2** Loss of ability to provide control services

Should Emirates ACC be evacuated, the potential would exist for a major disruption to Air Traffic Control (ATC) within the Emirates FIR.

In the event of Emirates ACC being evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with an alternate means of communication. The procedures to be adopted are detailed in the Emirates Contingency plan.

As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as detailed in the Emirates Contingency Procedures – Muscat ACC and Bahrain ACC, Appendix E. In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix E.

#### 13.6 FLIGHT CREW AND OPERATOR PROCEDURES

#### **13.6.1** For flights within the Emirates FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45. A listening watch on these frequencies must be maintained.

#### 13.6.1.1For flights within the Emirates FIR – Westbound

Muscat ACC will endeavour to provide an ATC service throughout the Emirates FIR as soon as evacuation commences. These procedures are detailed at Emirates Contingency Procedures – Appendix E.

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAIL	AFTN
Bahrain FIR	9731 7321080	9731 7321029	bahatc@caa.gov.bh	OBBBZQZX
	9731 7321081		catco@caa.gov.bh	OBBBZQZA
Muscat FIR	9682 4519550	9682 4519932	n.almazroui@caa.gov.om	OOMMZQZX
	96824519507			
Qatar TMA	9744 4622515	9744 4621765	doha.ais@caa.gov.qa	OTBDZTZX
	9744 4656561		ahmed@caa.gov.qa	
	9744 4656562			
Tehran FIR	9821 44544116	9821 44544117	Maj.alireza@yahoo.com	OIIIZGZX
	9821 44544060		-	OIIIZQZX

## ADJACENT ATSU CONTACT DETAILS:

ICAO MID	0020 2 2267	0020 2 2267 4843	
	4845/46/41		
IATA	00962 6 569 8728	OO962 6 560 4548	saidh@iata.org

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

#### **13.6.2** For flights within the Emirates FIR – Eastbound

Bahrain ACC will endeavour to provide an ATC service throughout the Emirates FIR as soon as evacuation commences. These procedures are detailed at Emirates Contingency Procedures – Appendix E.

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

#### 13.6.3 For flights approaching the Emirates FIR when the contingency is activated.

#### Not in Receipt of an ATC Clearance

In the event that Emirates ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Emirates FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Emirates FIR or to land at an appropriate airfield.

In receipt of an acknowledged ATC Clearance outside Emirates FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Emirates FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

#### **13.7 EMIRATES FIR – CONTINGENCY ROUTE STRUCTURE**

#### 13.7.1 For activation within Emirates FIR

In a **limited service** contingency situation Emirates ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the Emirates FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN.

#### 13.7.2 For activation within an adjacent FIR

Unless instructed otherwise, flights entering the Emirates FIR should use the following contingency routes:

- All routes which are not mentioned will be not available;
- Ten minutes longitudinal separation from OBBB, OIII, OOMM and OTDB;
- All traffic transiting UAE FIR shall be maintaining flight level:

WESTBOUND	<b>OVERFLYING AND LANDING TRAFFIC</b>
-----------	---------------------------------------

ATS Waypoint	ATS Route	ATSU Frequency	Transfer Waypoint	Available Flight Level	EXIT ATS Waypoint	NEXT ATSU Frequency	REMARKS
MENSA	N571	MUSCAT	ATBOR	FL320, FL340,	BALUS	BAHRAIN	

		ACC 119.8		FL380 and Above		132.125	
MENSA	N571	MUSCAT	ATBOR	FL 260, FL300	TONSA	BAHRAIN	
		ACC 119.8				132.125	
SODEX	N563	MUSCAT	ADV	FL280, FL360	BALUS	BAHRAIN	
		ACC 124.7				132.125	
	Z994	MUSCAT	MISOD	FL300, FL320,	MEKMA	BAHRAIN	Available only for
		ACC 124.7				132.125	Traffic Landing
							Doha
TAPRA	M762	MUSCAT	TAPRA	FL180	TAPRA	DUBAI APP 124.9	Available only for
		ACC 119.8					Traffic Landing
							within Dubai CTA
ITRAX	P899	MUSCAT	ITRAX	FL160		ABU DHABI APP	Available only for
		ACC 124.7				124.4	Traffic Landing
							within Abu Dhabi
							CTA
LUDID	M628	MUSCAT	LUDID	FL340 and Above		BAHRAIN ACC	
		ACC 124.7				2992 8918 5667	
						(HF)	

## **EASTBOUND**

1 000	1 700	1 more				A DESTRUCTION A DESCRIPTION	DELEDITO
ATS	ATS	ATSU	Transfer	Available Flight	EXIT ATS	NEXT ATSU	REMARKS
Waypoint	Route	Frequency	Waypoint	Level	Waypoint	Frequency	
• •							
NADAM	A791	BAHRAIN	SHJ	FL390	LALDO	MUSCAT	
		132.125				ACC 119.8	
			SHJ	FL250, FL290,	TONVO	MUSCAT	
				FL330, FL370		ACC 119.8	
SIR	L223	TEHRAN/	RAGOL	FL350	TARDI	MUSCAT	
		133.4				ACC/124.7	
LABTA	Y505	BAHRAIN	80NM FROM	FL190/FL170		DUBAI	Available only for
		/132.125	SHJ			APP/124.9	Traffic Landing
							Northern Emirates
ORSAR	G666/	THRAN/13	80NM FROM	A090/FL210		DUBAI	Available only for
	B416	3.4	SHJ			APP/124.9	Traffic Landing
							Northern Emirates
GITEX	N685	BAHRAIN	ADV	FL270, FL310,	LABRI	MUSCAT	
		132.125		FL390		ACC 124.7	
			60NM FROM	FL190		ABU DHABI	Available only for
			ADV			APP/124.4	Traffic Landing
							Southern Emirates

## **DEPARTING TRAFFIC**

## WESTBOUND:

ATS Route	ATSU Frequency	Transfer Waypoint	Available Flight Level	NEXT ATSU Frequency	REMARKS
N571	DUBAI APP/124.9	60NM FROM SHJ	FL200	BAHRAIN 132.125	Dubai APP Shall Climb Traffic to FL180 then to be Transferred to Bahrain ACC
G462	ABU DHABI APP/124.4	60NM FROM ADV	FL180	BAHRAIN 132.125	Abu-Dhabi Shall Climb Traffic to FL160 then to be Transferred to Bahrain ACC
Z994	ABU DHABI APP/124.4	60NM FROM ADV	FL200	BAHRAIN 132.125	Available for Traffic Landing Doha Traffic Departing Dubai CTA Shall be transferred Locally by Dubai APP to Abu-Dhabi APP then to be Routed via TAS Route Z994

#### EASTBOUND

ATS Route	ATSU Frequency	Transfer Waypoint	Available Flight Level	NEXT ATSU Frequency	REMARKS
A791	DUBAI APP 124.9	LALDO	FL230	MUSCAT ACC 119.8	Dubai APP Shall Climb Traffic to FL230 then to be Transferred to
	12.119			11910	Muscat ACC
L223	DUBAI APP	TARDI	FL210	MUSCAT ACC	Abu-Dhabi Shall Climb Traffic to
	124.9			124.7	FL210 then to be Transferred to
					MUSCAT ACC
N318	ABU DHABI	LABRI	FL230	MUSCAT ACC	Abu-Dhabi Shall Climb Traffic to
	APP 124.4			124.7	FL230 then to be Transferred to
					MUSCAT ACC

Communications with the next ATSU should be established at the earliest opportunity.

#### 13.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Emirates ACC loses the ability to provide an ATC service in the Emirates FIR for an extended period, and contingency plans are in place to provide the service from an alternate location.

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the main facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Emirates FIR within 48 hours. In the interim period no ATC service will be available and all flights will be required to route clear of the Emirates FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

#### APPENDIX XX

#### SAMPLE NOTAMS

#### a) Avoidance of airspace

NOTAM......DUE TO DISRUPTION OF ATS IN THE EMIRATES FIR ALL ACFT ARE ADVISED TO AVOID THE FIR.

#### b) Airspace available with limited ATS

NOTAM .....DUE TO ANTICIPATED DISRUPTION OF ATS IN THE EMIRATES FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

#### c) Contingency plan activated

NOTAM ......DUE TO DISRUPTION OF ATS IN EMIRATES FIR ALL ACFT ARE ADVISED THAT THE Emirates FIR INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY EMIRATES AIRSPACE.

#### d) Non adherence to the Contingency Plan

NOTAM ......OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE EMIRATES FIR

## **CHAPTER 14: DETAILED PROCEDURES – SANA'A FIR**

#### 14.1

#### FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Sana'a FIR

14.2

## FIRs WITH SUPPORTING PROCEDURES

Addis Ababa FIR Asmara FIR Bahrain FIR Jeddah FIR Mogadishu FIR Mumbai FIR Muscat FIR

#### 14.3

#### NOTIFICATION PROCEDURES

In a limited service situation notification of any service limitations and traffic management measures will be promulgated to operators and adjacent ANSPs via AFTN.

In a no service situation the ACC is likely to have been evacuated. As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators. An evacuation message will be broadcast on appropriate frequencies and operators in receipt of the contingency message are asked to forward this information to affected flights wherever possible.

#### **14.4 LIMITED SERVICE – PROCEDURES**

#### 14.4.1 Disruption of ground/air communication capability

A limited communication service will be maintained with the assistance of adjacent Aerodromes. VHF services on the Sana'a frequency normally provided by Sana'a Control will be delegated as appropriate to the other ATS units namely ______, Appropriate frequencies will be advised by Sana'a and the assisting ATS units.

Situations which could result in a Limited Service are:

#### Equipment Failure

- a) Transmitters (Loss of a number of Transmitters)
- b) Receivers (Loss of a number of Receivers)
- c) Aerials (Loss of a number of Aerials)
- d) Data Lines (Loss of data lines between Sana'a Communications center and Sana'a ACC)

#### Propagation

Radio Propagation resulting in partial fade-out can be affected by many factors including Solar Flares and Geomagnetic Storms.

#### Staffing

Reduced Staffing Illness Weather (Severe Weather i.e. Storm, Snow, Flooding)

#### Security Threat

Depending on the level of the Security threat and if essential staff are allowed to remain on Station

In the event that the operation is degraded substantially, ATFM measures may be imposed as necessary.

#### 14.4.2 Disruption of ability to provide control services

Sana'a ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. En-route re-clearance of such traffic shall not be permitted except in emergency.

Traffic without a valid clearance may be subject to tactical traffic management measurements to meet the requirements of the service limitation.

Separation standards

Sana'a ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

#### Contingency tracks

Dependant on the nature of the service limitation, Sana'a may promulgate and activate contingency tracks for use in addition to the normal ATS Routes available.

#### Air Traffic Flow Management

Sana'a ACC shall co-ordinate any necessary traffic management measures where necessary. Such measures may include, but are not limited to, temporary capacity restrictions and tactical rerouting measures.

Sana'a ACC shall co-ordinate these restrictions where necessary with adjacent ANSPs where they may affect the flow of traffic through these units airspace.

#### Responsibilities of adjacent ANSPs

The action required of adjacent ANSPs will vary dependant on the nature of the service limitation. Where such action is not contained within the inter-centre Letters of Agreement (LOAs) the requirement will be promulgated within the initial failure and restrictions message.

#### 14.5 NO SERVICE – PROCEDURES

#### 14.5.1 Loss of ground/air communication capability

In the event of Sana'a ACC being unable to provide ground/air communications for Sana'a FIR ------ ATC Unit will coordinate with adjacent FIR's to provide ground/communications to the best of their ability.

Situations which could result in No Service being provided are:

- a) Equipment Failure;
  - Transmitters (Loss of all Transmitters)
  - Receivers (Loss of all Receivers)
  - Aerials (Loss of all Aerials)
  - Data Lines (Loss of data lines)
- b) Propagation;
  - Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.
- c) Staffing
  - No Staff
  - Illness (Seasonal Influenza)
  - Weather
  - Industrial Relations issues
- d) Evacuation of Sana'a ACC
  - Fire
  - Bomb threat

#### Effect on flights

In the event of Sana'a ACC being unable to provide ground/air communications for a sustained period of time ------ ATC Unit in coordination with adjacent FIR's could provide a limited communications facility to flights in the Sana'a FIR.

ATFM measures may be imposed as necessary.

#### 14.5.2 Loss of ability to provide control services

Should Sana'a ACC be evacuated the potential would exist for a major disruption to Air Traffic Control (ATC) within the Sana'a FIR.

In the event that Sana'a ACC is evacuated, the unit evacuation procedures will be activated, and time permitting, controllers will make an emergency evacuation transmission on the radio frequency in use providing pilots with alternate means of communication. The procedures to be adopted are detailed in the Sana'a Contingency plan.

As soon as possible after evacuation a contingency message will be sent to all adjacent ANSP's and operators as, detailed in the Sana'a Contingency Procedures – Appendix xx.' In turn they are expected to advise the affected traffic.

Other ATSUs will provide guidance as far as possible in the circumstances.

Contact information that may be used in the event of an emergency evacuation is provided in Appendix XX.

#### 14.6 FLIGHT CREW AND OPERATOR PROCEDURES

#### 14.6.1 For flights within the Sana'a FIR – General

The procedures outlined below are to be used as guidance for pilots in the immediate aftermath of a sudden withdrawal of the ATC service as described above.

On receipt of the contingency message pilots are requested to broadcast to other flights on 121.5 and 123.45. A listening watch on these frequencies must be maintained.

#### 14.6.2 For flights within the Sana'a FIR – Westbound

----- ACC's will endeavour to provide an ATC service throughout the Sana'a FIR as soon as evacuation commences. These procedures are detailed at Sana'a Contingency Procedures – Appendix x

Flights should establish communication with the next agency at the earliest opportunity stating current position, cleared flight level, next position and estimate and subsequent position.

Any flights involved in level changes should complete the manoeuvre as soon as possible in accordance with the clearance.

UNIT	TEL. No	FAX No	EMAIL	AFTN
Addis Ababa				
FIR				
Asmara FIR				
Bahrain FIR				
Jeddah FIR				
Mogadishu FIR				
Mumbai FIR				
Muscat FIR				

ICAO MID	0020 2 2267	0020 2 2267 4843	
	4845/46/41		
IATA	<mark>OO962 6 569 8728</mark>	<mark>OO962 6 560 4548</mark>	saidh@iata.org

Flights may request their flight dispatch offices to forward position reports, if sending position reports to multiple ATS Units or if otherwise unable to forward position reports.

#### 14.6.3 For flights within the Sana'a FIR – Eastbound

------ ACC's will endeavour to provide an ATC service throughout the Sana'a FIR as soon as evacuation commences. These procedures are detailed at Sana'a Contingency Procedures – Appendix x

Flights operating with a received and acknowledged ATC clearance will be expected to continue in accordance with the last clearance issued unless otherwise advised by ATC.

Communications with the next ATSU should be established at the earliest opportunity.

14.6.4 For flights approaching the Sana'a FIR when the contingency is activated.

Not in Receipt of an ATC Clearance

In the event that Sana'a ACC must be evacuated, only aircraft with received and acknowledged ATC clearances shall be permitted to transit Sana'a FIR.

If unable to obtain or acknowledge an ATC clearance, flights should plan to re-route around the Sana'a FIR or to land at an appropriate airfield.

In receipt of an acknowledged ATC Clearance outside Sana'a FIR

Aircraft operating with a received and acknowledged ATC clearance can, at pilot's discretion, continue, but must expect a limited ATC service or no service within the Sana'a FIR.

However, due to the uncertainty surrounding the contingency situation pilots are strongly advised to comply with the procedures detailed above for flights not in receipt of an ATC clearance even if they are in receipt of an acknowledged ATC clearance.

## 14.7 SANA'A FIR – CONTINGENCY ROUTE STRUCTURE

#### 14.7.1 For activation within Sana'a FIR

In a **limited service** contingency situation Sana'a ACC may promulgate additional contingency tracks in addition to the published ATS Routes. Any contingency track design within the Sana'a FIR will be effected at the time of the event and be dependent on the nature of the service limitation. Promulgation will be via AFTN

#### 14.7.2 For activation within adjacent FIR

Unless instructed otherwise, flights entering the Sana'a FIR should use the following contingency routes:

Communications with the next ATSU should be established at the earliest opportunity.

#### 14.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Sana'a loses the ability to provide an ATC service in the FIR for an extended period, and contingency plans are in place to provide the service from an alternate location.

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Sana'a facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in the Sana'a FIR within 48 hours. In the interim period no ATC service will be available and all flights will be required to route clear of the Sana'a FIR.

When established, the contingency facility will comprise a slightly reduced complement of control and support workstations, but with the existing range of communication facilities for clearance delivery.

Operators can expect that ATFM regulations will be in place throughout the period of the transition, with a gradual build up to near normal operating levels.

#### APPENDIX XX

#### SAMPLE NOTAMS

#### a) Avoidance of airspace

NOTAM......DUE TO DISRUPTION OF ATS IN THE SANA'A FIR ALL ACFT ARE ADVISED TO AVOID THE FIR.

#### b) Airspace available with limited ATS

NOTAM .....DUE TO ANTICIPATED DISRUPTION OF ATS IN THE SANA'A FIR ALL ACFT ARE ADVISED THAT THERE WILL BE LIMITED ATS. PILOTS MAY EXPERIENCE DLA AND OVERFLIGHTS MAY CONSIDER AVOIDING THE AIRSPACE.

#### c) Contingency plan activated

NOTAM ......DUE TO DISRUPTION OF ATS IN SANA'A FIR ALL ACFT ARE ADVISED THAT THE Sana'a FIR INTERNATIONAL CONTINGENCY PLAN FOR ACFT INTENDING TO OVERFLY THE FIR IS IN EFFECT. FLIGHT PLANNING MUST BE IN ACCORDANCE WITH THE ROUTES LISTED AND FL ASSIGNMENT. PILOTS MUST STRICTLY ADHERE TO THE CONTINGENCY PROCEDURES. ONLY APPROVED INTERNATIONAL FLIGHTS ARE PERMITTED TO OVERFLY SANA'A AIRSPACE.

#### d) Non adherence to the Contingency Plan

NOTAM .....OPERATORS NOT ABLE TO ADHERE TO THE CONTINGENCY PLAN SHALL AVOID THE SANA'A FIR

-----



# CONTINGENCY ROUTING SCHEME FOR ASIA/MIDDLE EAST/EUROPE – 2003 (CRAME-03)

Version II

Approved by the President on behalf of the ICAO Council

ICAO

Introduction	The Contingency Routing Scheme for Asia/Middle East/Europe – 2003 (CRAME-03) has the objectives of ensuring continued safety of air navigation within FIRs affected by airspace closures and minimising effects on international civil air transportation in the event of military action occurring in the Middle East area. The procedures contained in this document supplements or details, where so required, those actions and procedures prescribed in State specific contingency plans.
	The contingency routing scheme is designed to provide alternative routes to/from Asia, Middle East, and Europe, which will allow aircraft operators to avoid airspace in the Middle East, as necessary, with a minimum of disruption to flight operations.
	It is not possible to predict with certainty what airspace will remain open or closed to civil aviation and for what period of time. Experience from operating similar contingency plans under similar conditions shows that a flexible approach to airspace management is required. Frequent changes in military objectives and concentrations of military activities will affect the airspace available for civil operations. In this regard, the contingency routing scheme takes into account that States may need to modify the extent to which they can support the contingency arrangements. Accordingly, this contingency scheme has been designed to contain a variety of options, which can be used for varying scenarios. It is recognized that operators may incur economic penalties during application of the contingency scenarios. Therefore, air traffic flow control
	measures will be implemented as required.
Airspace Definition	The contingency routing scenarios are designed for air traffic operating through the following flight information regions (FIRs) south and north of the Himalayas (see charts in <b>Appendix B</b> ): Addis Ababa, Alma Ata, Asmara, Bahrain, Bangkok, Cairo, Colombo, Delhi, Emirates, Frunze, Jeddah, Kabul, Karachi, Khartoum, Kunming, Lahore, Lanzhou, Madras, Male, Mogadishu, Mumbai, Muscat, Sana'a, Semipalatinsk, Seychelles, Tehran, Ulaan Baatar, Urumqi and Vientiane.
Contingency Situation	These procedures have been developed to provide alternative routings for various scenarios in the event that military activity in the Middle East closes airspace to international civil aviation or where operators wish to avoid airspace due to a perceived risk to the safety of flight.

ICAO

**Responsibilities** Elements of this contingency scheme may be activated by NOTAM or Aeronautical Information Publication (AIP) Supplement as required and issued by the air traffic services (ATS) authorities responsible for the FIRs concerned. ATS authorities will notify by NOTAM any closures of ATS routes and airspace that become potentially hazardous to air traffic. The NOTAM should give information on any degradation of communications, navigation and surveillance services. The affected ATS unit should activate its contingency scheme by the most direct means possible (direct speech, AFTN (SS priority) or any other means of priority message) to the following:

- a) all airborne aircraft potentially affected by such closures or degradation of services
- b) adjacent FIRs and air traffic control (ATC) Centres;
- c) to the following ICAO Regional Offices:
  - 1) Bangkok (AFTN: VTBBICOX);
  - 2) Cairo (SITA: CAICAYA);
  - 3) Nairobi (SITA: NBOCAYA.); and
  - 4) Paris (SITA: PAREUYA); and
- d) and to the following IATA Regional Offices:
  - 1) Singapore (WSSSIATA);
  - 2) Amman;
  - 3) Nairobi; and
  - 4) Brussels.

## **ICAO** Approval

Approval	By agreement of States and international organizations through the ICAO Regional Offices of Asia/Pacific, Middle East and European and North Atlantic, this contingency scheme is approved by the President on behalf of the ICAO Council.
Coordination	The appropriate ICAO Regional Office will distribute this contingency scheme to all relevant States and international organisations within their regions.
Amendment and Review	This contingency scheme should be reviewed regularly and amended as appropriate. In addition, States should periodically review their own national contingency plan and coordinate any amendments with neighbouring States and ICAO.
<b>Revision Conditions</b>	Amendments and revisions are to be coordinated with affected States, organisations and ICAO. Proposed amendments to the contingency scheme should be forwarded to the relevant ICAO Regional Office for action.
Contact Names and Telephone Numbers	To be provided by State ATS Providers and international organizations to the relevant ICAO Regional Office for distribution. A list of contact details is contained in <b>Appendix A</b> .

## **Contingency Scenarios**

## Description

This contingency scheme provides a series of options for alternative routings where ATS routes and airspace are closed or operators choose to avoid airspace, which could pose a risk to the safety of flight.

## Airspace and Routes

# Contingency routing scheme

This contingency scheme has been developed based on existing ATS routes and making use of appropriate contingency routes in the Contingency Routing Plan for Asia/Middle East/Europe (CRAME). Priority has been given to safety considerations and to ensuring that as far as possible, ATC operations are not complicated. Temporary routes are also established where necessary.

The contingency routings are designed to take into consideration that disruptions to normal traffic flows have the potential to create an additional burden and complexity to ATC. Therefore, temporary contingency routes have been designed to be safe and instantly manageable by ATC. This may require additional track miles to be flown by the aircraft operator.

The contingency schemes were given CRAME designators based on various scenarios that may take place, which are:

*Scenario 1(Yellow routes):* Flights planning to operate on existing routes to and from Gulf States aerodromes that are open to civil flights, and overflights are permitted over portions of the Arabian Peninsular.

*Scenario 2 (Pink routes):* Flights planning to avoid the Persian Gulf by operating on existing routes through Pakistan and Iran via the Arabian Sea.

*Scenario 3 (Blue routes):* Flights planning to avoid the Persian Gulf by operating through Pakistan, Iran and Turkey.

*Scenario4 (Orange routes):* Flights planning to avoid the Persian Gulf, Iran and Turkey by operating through Afghanistan and India.

*Scenario 5 (Red routes):* Flights planning to avoid the Persian Gulf, Iran, Turkey and Afghanistan by operating across the Arabian Sea and Indian Ocean.

*Scenario 6 (Green routes):* Flights planning to avoid the Middle East entirely by operating north of the Himalayas or east and north of Afghanistan (Kabul FIR).

The scenarios above are further delineated in terms of alternative routes that are available to meet each scenario's stated objective. This will normally be in the form of a contingency route designator (e.g. *CS Green 6.4*) or an existing code where the route is already specified as a part of CRAME or the ATS route designator for established ATS routes. Details of these alternative routes that apply to each scenario are contained in the charts at **Appendix B**. Except for Scenarios 5 and 6, which are limited to existing route structures, the route details and procedures associated with each contingency route is at **Appendix C**.

#### Special Note:

Under Scenarios 1 to 5 above, airline company policy may dictate that their aircraft avoid the Middle East area completely as well as operations over Afghanistan, which may require them to plan via China, North of the Himalayas in accordance with Scenario 6.

## Air Traffic Management

ATS Responsibilities	Normal communications, navigation and surveillance (CNS) and air traffic management (ATM) are expected to be provided for the FIRs concerned.
	It should be noted that tactical air traffic control considerations during periods of over-loading may require re-assignment of routes or portions thereof. Where possible, the designated alternative routes have been designed to maximize the use of existing ATS route structures and communication services.
	The State ATS provider should issue NOTAMs detailing the services and facilities not available, including where known, an expected date of restoration, and giving information on the arrangements for the provision of alternative services where appropriate. In addition, if a disruption to service is anticipated, the State ATS provider should publish a NOTAM that alerts the operator to the possible disruption and what actions are expected to take place. This will allow both operators and affected State ATS providers to prepare in advance of any such occurrence.
Separation	Separation criteria will be applied in accordance with the <i>Procedures for Air Navigation Services—Air Traffic Management</i> (PANS-ATM, Doc 4444) and the Regional Supplementary Procedures (Doc 7030).
Level Restrictions: Regional Route Structure	Wherever possible, aircraft on long-haul international flights shall be given priority and cleared to optimum cruising levels, i.e. at FL 280 and above.

ICAO

Air Traffic Flow Management	Air traffic flow management (ATFM) measures will be introduced as required to ensure an optimum flow of air traffic to and through areas during times when demand exceeds or is expected to exceed the available capacity. ATFM also should ensure that safety is not compromised by the development of unacceptable levels of traffic congestion. During the implementation of this contingency scheme there could be periods of traffic build up that would require implementation of ATFM.
	ATS providers with responsibility for contingency routes should coordinate in advance appropriate ATFM arrangements that include setting acceptable traffic flow rates for the various routing scenarios. An example of traffic flow rates based on applying 10 minute and 15 minute longitudinal separation is provided in <b>Appendix F</b> . Flow rates would need to be established for each contingency route by States concerned.
	In order to regulate and maximise the airspace capacity and make use of available flight levels, it may be necessary to impose speed restrictions/requirements on some routes for specific time periods.
	Tactical flow management measures which monitor the progress of individual aircraft will intervene when required to meet ATM constraints.
	States should review the airport traffic movement curfew hours, with a view to providing leniency during the critical period when the contingency routes are activated so as to allow for late arrivals or departures as a result of flow control measures.
Transition to contingency scheme the event of airspace closure	During times of uncertainty when airspace closures seem possible, aircraft operators should be prepared for a possible change in routing while en- route. This would require familiarization of the alternative routes outlined in this contingency scheme as well as what may be promulgated by a State via NOTAM or AIP.
	In the event of an airspace closure that has not been promulgated, ATC should if possible broadcast to all aircraft in their airspace what airspace is being closed and to stand by for further ATC instructions.
	ATS providers should recognize that when closure of airspace or airports are promulgated, individual airlines may have different company requirements as to their alternative routings. ATC should be alert to respond to any request by aircraft and react commensurate with safety.

## **Transfer of Control and Co-ordination**

**Transfer of Control** The transfer of control and communication should be at the common FIR boundary unless there is mutual agreement between the adjacent ATS units. State ATS providers should also review current co-ordination requirements in light of contingency operations or short notice airspace closures.

## Communications

# **Flight Monitoring** In areas where a control service is not available, a flight monitoring and broadcast procedure should be used. The ICAO Traffic Information Broadcast by Aircraft (TIBA) procedure as shown in **Appendix D** should be used for flights in the Asia Pacific and Middle East Regions on VHF 128.95 MHz and the IATA In-flight Broadcast Procedure (IFBP) is used for flights in African/Indian Ocean FIRs as specified in **Appendix E**, Paragraph 6.1 on VHF 126.9 MHz.

## **Pilot and Operator Procedures**

Intercept Operations Pilots need to be aware that a contingency situation involving military activity carries the possibility of being intercepted by military aircraft. Aircraft operators must therefore be familiar with international intercept procedures contained in Annex 2 to the Chicago Convention, paragraph 3.8 and Appendix 2, Sections 2 and 3 as shown in **Appendix G**, as well as specific intercept procedures that may be contained in a State AIP.

Pilots need to continuously guard the VHF emergency frequency 121.5 MHz and should operate their transponder at all times during flight, regardless of whether the aircraft is within or outside airspace where secondary surveillance radar (SSR) is used for ATS purposes. Transponders should be set on a discrete code assigned by ATC or select code 2000 if ATC has not assigned a code.

If an aircraft is intercepted by another aircraft, the pilot shall immediately:

- a) follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with international procedures;
- b) notify, if possible, the appropriate air traffic services unit;
- c) attempt to establish radio communication with the intercepting aircraft by making a general call on the emergency frequency

121.5 MHz and 243 MHz if equipped; and

d) set transponder to Code 7700, unless otherwise instructed by the appropriate ATS unit.

If any instructions received by radio from any sources conflict with those given by the intercepting aircraft, the intercepted aircraft shall request immediate clarification while continuing to comply with the instructions given by the intercepting aircraft.

## **Overflight Approval**

# requirements

Overflight approval Aircraft operators are to obtain overflight approval from States for flights operating through their FIRs, where required. In a contingency situation, flights may be rerouted at short notice and it may not be possible for operators to give the required notice to obtain approval. This would be a particular problem when airspace is closed at short notice. States responsible for the FIRs in which contingency routes are established should consider making special arrangements to expedite flight approvals in these contingency situations.

> States should facilitate the entry/overflight of humanitarian flights within their territorial airspace/FIRs in case be requested by Humanitarian Agencies.

## **Appendices**

Appendix A	List of contact persons and details
Appendix B	Chart(s) of Contingency routes
Appendix C	Matrix containing details of contingency routes
Appendix D	ICAO Contingency TIBA Procedures
Appendix E	IATA In-flight Broadcasting Procedures
Appendix F	ATFM air traffic flow rates

ICAO

Appendix G ICAO Interception Procedures

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS				
ARMENIA										
Arthur Gasparyan (Focal Point – H24)	3741 59 33 04		3741 47 71 90	3749 59 33 04	arthur.gasparyan@armats.am	UGEEADXX				
Avag Poghosyan (Alternate – H24)	3741 59 30 76		3749 40 15 82	3741 28 70 02		UGEEADXX				
AZERBAIJAN										
Bala Mirzoev	99412 971 604 (0500 – 1400)		99450 326 2863 (H24)	99412 972 733 (0500 – 1400)	Direct address: balamirzoev@azans.az Official address: office@azans.az atm@azans.az	UBBBADXX				
ATC Supervisor	99412 971 673									
(on duty)				·						
BAHRAIN										
Mr. Mohamed Ahmed Juman	973 321 031/80 INMARSAT: 873 763 688 478 (H24)			973 321 029 INMARSAT: 873 763 688 479	cmcan@bahrain.gov.bh	Air Navigation Crisis Management Centre Operational on H24				
BANGLADESH										
Chairman CAA of Bangladesh	880-2-8911122			880-2-8913322	caab@nsl.bangla.net					
CHINA										
Mr. Liu Zhonghua	86-10-6401 2907			86-10-6513 5983		AFTN: ZBBBZGZX				

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
Mr. Zhang Tongguo	86-10-6401 2907					
EGYPT						
Mr. Mohamed Alkady	202 265 7849	202 639 1792	202 417 8460	202 268 0627	<u>elkady@nansceg.org</u> mielkady@hotmail.com	
Mr. Aly Hussien Aly	202 637 3950	202 417 8460	201 01609 760	202 268 0627		
GEORGIA			~ `			
Vladimir Gogashvili	995 32 947 326 (0500-1400 UTC)		995 77 411 125	995 32 947326 (0500-1400UTC)	atc@airnav.com.ge atc@caucasus.net	UGGGADXX
HONG KONG, CHINA						
Mr. Norman Lo Deputy Director General Civil Aviation	(852) 2867 4202	(852) 2504 4299	(852) 9038 0695	(852) 2910-1177 (VHHH ATCC- H24)	nsmlo@cad.gov.hk	
Mr. John Lau	(852) 2910-6402	(852) 2341-1928	(852) 9022-8422	(852) 2910-1177	jtclau@cad.gov.hk	
INDIA						
H.S. Chawla	91-11-2463 1684		981-0016-825	91-11-2461 1078	edatmchqnad@airportsindia.org .in	
DGCA India	91-11-2462 7830	91-11-2467 1272		91-11-2462 9221		
AAI				91-11-2463 2990		
INDONESIA			·			
DGAC – Indonesia				62-21-424 6703		
Director of Aviation Safety				62-21-350 7569		
IRAN						

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
Mr. A. Golmohammadi DG of Operations	982 1452 5493					Note During New Year Holidays in Iran (20 March – 5 April) Contact the Dep. Of CAO in Operation or in the Dept. of ATS
Mr. Momenirokh Deputy of CAO in Operation		21 440 0753	98 913 227 4798	98 214 527 194		
Mr. E. Shoushtari Deputy of ATS Dept.		21 601 4235	98 911 286 100			
Mr. Khodakarami Deputy of ATS Dept.		21 408 7386	98 913 284 3796			
JORDAN Mr. Majed Yousef Aqeel Director, ATM	9626 489 7729		079 502 0100	9626 4891 266	<u>majedaqeel@yahoo.com</u>	
KAZAKHSTANAmantaiZholdybayev	7 3172 328 688		7 300 533 6583	7 3172 324 225	tokbakbayev@mtc.gov.kz	
KYRGYZSTAN Georgy Sitnikov (Focal Point – Day only)	996 312 542 142			996 312 542 140 996 312 542 141	Parc2@mail.elcat.kg	UAFMYAYX
Civil Sector ATFM (H24)	996 312 603 552			996 312 603 573 996 312 313 573		UAFMZDZX

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
KUWAIT						
Eng. Fozan M. Al-Fozan	965 476 0421			965 431 9232	<u>cvnedd@qualitynet.net</u>	
LEBANON				·		
Mr. Khaled Chamieh Chief, Air Navigation Department	9611 628 178		9613 837 833	9611 629 023	chamiehk@beirutairport.gov.lb	
MALAYSIA				·	· · · · · · · · · · · · · · · · · · ·	
Mr. Maniam Appadurai Deputy Director ATS (Operations)	007-603-7846 5233 007-603-7846 9428	603-7980 0870		603-7847 2997	accwmfc@tm.net.my	
MALDIVES						
Mr. Mohamed Solih Chief Air Traffic Services	960-313308		960-774154	960-323039	msolih@airports.com.mv	
MYANMAR						
DCA Myanmar			$\overline{}$	95-1-665124	dca.myanmar@mptmail.net.m m	
U. Yoa Shu	951-663-838	951-642-223		951-665-124	dca.myanmar@mptmail.net.m m	
NEPAL						
				977-1-262516		
OMAN			*			
Mr. Abdullah Nasser Al-Harthy	968 519 201		968 947 6806	968 519 939/ 519 930	Abdullah_Nasser@dgcam.com. om	
Mr. Saud Al-Adhoobi	968 519 305		968 932 1664	968 519 939/ 519 930	saud@dgcam.com.om	

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
PAKISTAN						
Mr. Zahid H. Khan	922 1924 8134				gmats@cyber.net.pk	
PHILIPPINES						
Mr. Anacleto V. Venturina Director, Air Traffic Service	63-2-8320906	63-2-8729416		63-2-7592742	avv@ats.ato.gov.ph	
Mr. Salvador G. Rafael Chief, Air Traffic Control Division	63-2-7592742	63-46-4171281		63-2-7592742	srafael@atmd.ats.ato.gov.ph	
RUSSIAN FEDERATION						
Yury Meleshko (Focal Point – CAA)	7 095 155 5931		7 095 961 5680 (H24)	7 095 151 3335	Scherbakov_lk@scaa.civilavia.r u	
Watch Supervisors (H24)	7 095 155 5693 7 095 155 9659			7 095 155 5217		UUUVYVYX
Senior Controllers (H24)	7 095 155 8572 7 095 155 5515					UUUVZDZX
SAUDI ARABIA						
Mr. Mohammad Al Alawi	9662 640 1005		9665 562 1582	9662 640 1005	<u>alalawi m@yahoo.com</u>	
SINGAPORE						
Mr. Mervyn Fernando	65-6541 2420	65-6783 8544	65-9616 4300	65-6545 6224	mervyn_fernando@caas.gov.sg	
Mr. Kuah Kong Beng SRI LANKA	65-6541 2457			65-6545 6516	Kuah_kong_beng@caas.gov.sg	

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
Ranjith M. Silva	94-1-251621	94-1-862-454	94-777-71 2770	94-1-253187	rmsaasl@slt.lk	
SYRIA						
Mr. Mafood	963 1133 33815		093 222 553		dgca@net.sy	
Director General of						
Civil Aviation						
TAJIKISTAN			· · ·			
Vladimir Prijukov (0300 – 1200 UTC)	992 377 221 2414 992 377 223 1130 992 377 229 8432			992 377 221 2414	<u>mtdh@tajik.net</u>	UTDAYAYZ (SITA: DYUG7J)
THAILAND						
Mr. Vanchai Srimongkol DOA Thailand	66-2-286 2909			66-2-286 2909	svanchai@aviation.go.th	AFTN: VTBAZGZX
Mr. Kumtorn Sirikorn Aerothai - Focal Point	66-2-285 9905 66-2-287 5050		661-846 2623	66-2-285 9995	kumtorn@aerothai.or.th	AFTN: VTBBYFYX SITA: BKKTOYF
Mr. Somkiat Prakitsuvan Thai Airways	66-2-535 2449			66-2-504 3814	somkiat.p@thaiaiways.co.th	SITA: BKKOPTG
Mr. Prasert Pathumbal Thai Airways	66 2 996 9101			66 2 504 3803	prasert.p@thaiairways.co.th	SITA: BKKOWTG
TURKEY						
URKMENISTAN						
A.A. Amanov (Working Hours)	993 1235 5534			993 1235 4402		

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
Air Traffic Controller on duty (ACC) (H24)	993 1233 1352			993 1233 1352		SITA: ASBGCT5
UNITED ARAB						
EMIRATES (UAE)						
Mr. Riis Johansen Director, Air Navigation Services	9712 405 4216			9712 405 4316	atmuae@emirates.net.ae	
UZBEKISTAN						
Yuri Savkov Chief ATFMU (H24)	998 712 6769 86			998 7121 335813	<u>uzaeronav@airways.uz</u>	UTTTZDZX
VIET NAM						
Mr. Nguyen The Hung, Chief, Air Navigation Division	84 4 8274191	84 4 8525312		84 4 8274194	iad_caav@hn.vnn.vn	AFTN:VVVVYAY X
YEMEN						
Mr. Saleh A. Al-Theeb	9671 345 402	9671 344 048	737 15516	9671 345 403	San1ans@hotmail.com	
IATA – APAC						
David Behrens	65 6239 7161	65 6738 3305	65 9694 7401	65-6536 6267	behrensd@iata.org	
IATA – EUR			×			
Cees Gresnigt (H24)	32 2 626 1800		31 651 5353 68	32 2 648 5135	<u>gresnigtc@iata.org</u> <u>dicapuas@iata.org</u>	None
Razvan Bucuroiu (H24)	32 2 6261800		32 478 630395	32 2 648 5135	bucuroiur@iata.org dicapuas@iata.org	None

NAMES	PHONE	PHONE	MOBILE	FAX	E-MAIL	OTHER
NAMES	(WORK)	(HOME)	PHONE	ГАХ	E-MAIL	CONTACT DETAILS
IATA – MID						
Faqir Jehad	962 6 569 8728	962 6 5811 994	962 79 596 6559	962 6 560 4548	Faqirj@iata.org	
IATA – ESAF						
Mr. Trevor Fox	254 2 710-100	254 2 882-946		254 2 723-978	foxt@iata.org	AFTN:
(IATA RD)	254 2 723-999					HKNAIATX
IATA – Nairobi						
Mr. Meissa Ndiaye	254-2-723999	254-2-573892		254-2-723978	ndiayem@iata.org	
(IATA)	254-2-714751			254-2-727391		
ICAO Bangkok						
John E. Richardson	662-537 8189	662-722 4055	661-824 2467	662 537 8199	jrichardson@bangkok.icao.int	
(RO/ATM)	ext. 152	ext. 6253			jricho282@yahoo.com	
Focal Point						
David Moores	662-537 8189	662-653 1783	661 938 9710		dmoores@bangkok.icao.int	
(RO/ATM)	ext. 151	ext 2803			dsmoores@backpacker.com	
ICAO Cairo						
D. Ramdoyal	202 267 4845	202 516 3825	201 018 20339	202 267 4843	dramdoyal@cairo.icao.int	
(RO/ATM)	ext 104				ramdoyal@hotmail.com	
M.R. Khonji (DRD)	202 267 4841	202 415 2073	201 232 14946	202 267 4843	mkhonji@cairo.icao.int	
	ext. 116/115				mkhonji@hotmail.com	
ICAO Nairobi (ESAF)						
Lot Mollel (ICAORD)	254 2 622394	254 2 521208		254 2 623028	lot.mollel@icao.unon.org	
Apolo Kharuga	254 2 622372	254 2 882264		254 2 226706	apollo.kharuga@icao.unon.org	
Team Co-ordinator	254 2 622374		÷			
Marcel Munyakazi	254 2 622373	254 2 574149		254 2 520135	marcel.munyakazi@icao.unon.	
(RO/ATM)					org	
ICAO Paris						
Gunnar Emausson	33 1 46 41 85 92	33 1 47 57 34 33	33 6 22 11 40 58	33 1 46 41 85 00	gemausson@paris.icao.int	

NAMES	PHONE	PHONE	MOBILE	FAX	E-MAIL	OTHER
	(WORK)	(HOME)	PHONE	ГАА		CONTACT
		(IIOML)	I HONE			DETAILS
Jacques Vanier	33 1 46 41 85 24	33 1 34 46 01 14		33 1 46 41 85 00	jvanier@paris.icao.int jvanier@wanadoo.fr	DETAILS
Duty Contingency Contact Officer	33 1 4641 8585		33 6 70 94 56 27	33 1 46 41 85 00	Eurcontingency@paris.icao.int	LFPSYAYU
ICAO Headquarters – Montreal						
Vince Galotti (C/ATM)	1 514 954-6711	1 514 281-0731	1 514 951-0283	1-514-954 8197	vgalotti@icao.int	
Chris Dalton (TO/ATM)	1 514 954-8219 ext. 6710	1 514 485-3635		1-514-954 8197	cdalton@icao.int	
Gustavo De Leon (TO/ATM)	1 514 954-8219 ext. 6199	1 514 482-7182	1 514 883-4847	1-514-954 8197	gdeleon@icao.int g_deleon_p@hotmail.com	
Aleksandar Pavlovic (C/AIS/MAP)	1-514 954 8162	1-514 932 7632		1-514-954 6077	apavlovic@icao.int	
Hindupur Sudarshan (TO/RAO)	1-514 954 8219 ext 8190	1-514 486 4041		1-514-954 6077	hsudarshan@icao.int	
EUROCONTROL						
John Byrom	32 2 729 98 00		32 4 75 47 06 85	32 2 729 9028	john.byrom@eurocontrol.int	
Guy Guizien	32 2 729 97 62		32 4 75 26 17 93	32 2 729 9028	guy.guizien@eurocontrol.int	

Appendix B

Contingency Routes

## **CONTINGENCY SCHEME ROUTE DETAILS**

## 1. INTRODUCTION

1.1 The following scenarios provide aircraft operators with alternative routings to their normal routes that may be affected by airspace closures.

## **ROUTES — DESCRIPTION**

Scenario 1 (Yellow routes):	Flights planning to operate on existing routes to and from Gulf State aerodromes that are open to civil flights, and overflights are permitted over portions of the Arabian Peninsular			
Scenario 2 (Pink routes):	Flights planning to avoid the Gulf area on existing routes through Pakistan and Iran via the Arabian Sea			

## Scenario 3 (Blue routes):Flights planned to avoid the Gulf area by operating through Pakistan, Iran and Turkey

3.1	TIGER/G452	TIGER-G452-RK-ZAHEDAN		
3.2	P628/ZAHEDAN	P628–ASOPO–A791–BHOPAL–'PRA' VOR–A791/R462–CHOR– B210–NAWABSHAH–PG–G208–ZAHEDAN		
3.3	AAE/ZAHEDAN	AAE-N895W-SASRO-G208(W)-CHOR-KC-PARET-PG-ZAH		
3.4	ZAHEDAN/AAE	ZAH-G208-PG-P318 (S)-DOSTI-M638-KC-G208(E)-AAE		
3.5	KC/JI	KC–A791(W)–PARET–JI		
3.6	Л/КС	JI–A791(E)–LATEN–KC		

# Scenario 4 (Orange routes): Flights planned to avoid the Gulf area, Iran and Turkey by operating through India, Pakistan and Afghanistan

4.1	G500	DELHI–A466–LAHORE–A466–DERA ISMAIL KHAN (DI)–P500– PADDY–FIRUZ–P500/G500					
		Note:— Contingency levels FL310-FL390 within Kabul FIR.					
4.2	M881	DELHI–A466–LAHORE–A466–DERA ISMAIL KHAN (DI)–P500–BANNU (BN)–M881–GARRI					
		Note 1:— Contingency levels FL280-FL290 within Kabul FIR.					
		Note 2:— M881 conflicts laterally with ATS route P500.					
4.3	A466	DELHIA-466-LAHORE-A466-DI-AMDAR-TERMEZ					
		Note:— Contingency flight levels FL290–FL390.					
4.4	N644	DERA ISMAIL KHAN (DI)–N644–PAVLO–LEMOD					
		Note:— Contingency levels FL310-FL390.					
		RNP 10 approved aircraft only					
4.5	L750	TIGER-G202N-ZHOB-L750-ROSIE-RANAH					
		Note:— Contingency levels FL310-FL390					
		RNP 10 approved aircraft only					
4.6	B466/V390	NAWABSHAR–B466–KANDAHAR–V390–CHARN–G792–MASHHAD– GIRUN or MASHHAD–G775–ASHGABAT					
		Note:— Contingency levels FL310-FL350.					
		RNP 10 approved aircraft only					
4.7	P628/B466/ V390	P628–ASOPO–A791–BHOPAL–'PRA' VOR–A791W–CHOR– B210–NAWABSHARB–B466–KANDAHAR–V390–CHARN–G792– MASHHAD–GIRUN or MASHHAD–G775–ASHGABAT					
		Note 1:— Contingency levels FL310-FL350 within Kabul FIR.					
		<i>Note 2:— Within Tehran FIR G792 minimum enroute altitude FL310.</i>					

Appendix C

Scenario 5 (Red routes)	Flights planned to avoid the Persian Gulf, Iran, Turkey, and Afghanistan by operating across the Arabian Sea and the Indian Ocean			
CRAME 3A and 2C — as amended	Mumbai (BBB)–A451–BOLUR (1700.7N 063 07.4E)–ASPUX (1744.1N 06000.1E)–UN315–Haima (HAI)–LOTOS (N22 00.0 E050 39.2)			
	Note 1:— CRAME 3A is identical to CRAME 2C.			
	Note 2:— Traffic may route beyond LOTOS (N22:00.0 E050:39.2) via:			
	i) LOTOS–UL300–Luxor (LXR)–A727–Cairo (CAI). Westboun routing only;			
	ii) LOTOS–UL300–Yenbo (YEN)–A411–WEJ–A411–Sharm el Sheikh (SHM)–A411–Cairo (CAI). <i>Westbound routing only</i> ;			
	<ul> <li>iii) Cairo (CAI)–A727–SEMRU (N28:02.0 E032:03.1)–B418–WEJI (WEJ)–UL573–Dafinah (DFN)–UL300–LOTOS (N22 12.7 E04 48.0). Eastbound routing only;</li> </ul>			
	iv) LOTOS–UL300–KANOP (N22 12.7 E045 48.0)–Dafinah (DFN)– G782–Jeddah (JDW). Westbound routing only;			
	v) Jeddah (JDW)–B417–TALMA (N2329.6 E04052.0)–UL300– LOTOS. <i>Eastbound routing only</i> ; and			
	vi) LOTOS–Y100–KFA for flights to/from Bahrain, Dammam and Doha airports (consult local NOTAMs).			

CRAME 3B	UN3	nayake (KAT)–G462–TVM– UL425–ASPUX (1744.1N 06000.1E)– 15–HAI–LOTOS (N22 00.0 E050 39.2) then flight plan route to nation (consult local NOTAMs).		
	Note:— This is the most northerly route available. Traffic may route LOTOS (N22:00.0 E050:39.2) via:			
	i)	LOTOS–UL300–Luxor (LXR)–A727–Cairo (CAI). Westbound routing only;		
	ii)	LOTOS–UL300–Yenbo (YEN)–A411–WEJ–A411–Sharm el Sheikh (SHM)–A411–Cairo (CAI). <i>Westbound routing only;</i>		
	iii) Cairo (CAI)–A727–SEMRU (N28:02.0 E032:03.1)–B418– (WEJ)–UL573–Dafinah (DFN) –UL300–LOTOS (N22 12.7 48.0). <i>Eastbound routing only;</i>			
	iv)	LOTOS–UL300–KANOP (N22 12.7 E045 48.0)–UL300–Dafinah (DFN)–G782–Jeddah (JDW). Westbound routing only;		
	v) Jeddah (JDW)–B417–TALMA (N2329.6 E04052.0)–UL3 LOTOS. <i>Eastbound routing only; and</i>			

## Appendix C

## **Contingency Scheme Route Details**

	vi) LOTOS–Y100–KFA for flights to/from Doha (consult local NOTAMs).
CRAME 4A	<ul> <li>Mumbai (BBB)–A451–ODAKA (N14:40.6 E052:34.0)–B526–RIYAN (RIN)–SAA–UR777–DANAK–UB413/R776–Port Sudan then flight plan route to destination (consult local NOTAMs).</li> <li>Note:— CRAME 4A assumes that the Sanaa and Jeddah FIRs are available. Traffic may also route beyond ODAKA (N14:40.6 E052:34.0) as follows:</li> <li>ODAKA–A451–Aden (KRA)–B413– DANAK–B413/R776–Port Sudan then flight plan route to destination (consult local NOTAMs).</li> </ul>
CRAME 4 B	Katunayake (KAT)–G462–Trivandrum (TVM) –UL425–DONSA (N14:35.2 E065:11.6)–UP323– DCT–MOORI (Socotra) (approximately N12 38.47 E54 01.07)–V629F– RASEM (N14:11.5 E0050:28.6) –V629F– RIN–B526–SAA–UR777–DANAK–UB413/R776–Port Sudan then flight plan route to destination (consult local NOTAMs).

Note: — CRAME 4B assumes the Sanaa and Jeddah FIRs are open. Traffic may also route beyond RASEM (N14:11.5 E0050:28.6) as follows:	
- RASEM– A451–Aden (KRA) – B413/R776–Port Sudan then flight plan route to destination (consult local NOTAMs).	

Flights departing/arriving/overflying from/to Hong Kong, Thailand and northern India.			
CRAME 5A	Mumbai (BBB)–G450–ORLID (N11 17.1 E060 00.1)–T930–DCT– Hargeisa (HG) then flight plan route to destination ( <i>consult local NOTAMs</i> ).		
CRAME 5B	Male (MLE)–DCT–GAGDO (N08 00.0 E048 45.0)–Hargeisa (HG) then flight plan route to destination (consult local NOTAMs).		
	Note:— Traffic may route beyond Hargeisa via–DCT–Dire–Dawa (DWA) – W886–Addis Ababa (ADS)–UR2–TIKAT (N12:24.3 E035:38.2) then flight plan route to destination (consult local NOTAMs).		

Appendix C

# Scenario 6 (Green routes): Flights planned to avoid the Middle East entirely by flying north of the Himalayas or east and north of Afghanistan (Kabul FIR)

6.1	L888/A360	BANGKOK (BKK)–B346–LUANG PRABANG (LPB)–B218–SAGAG– A581–BIDRU–L888–KUQA–A460–REVKI–A360
6.2	B330/A368	BANGKOK (BKK)–B346–LUANG PRABANG (LPB)–B218–SAGAG- BIDRU–A581–KUNMING (KMG)–G212–JINTANG–B330–YABRAI– B215–FUKANG–A368–SARIN
6.3	B330	BANGKOK (BKK)–B346–LUANG PRABANG (LPB)–B218–SAGAG– BIDRU–A581–KUNMING (KMG)–G212–JINTANG–B330–YABRAI– MORIT
6.4	B215/A364	DELHI–A466–LAHORE–J121–BATAL–J131–GILGIT–G325–PURPA– B215–SACHE–A364–KURUM–R/UR356
6.5	B215/A360	DELHI–A466–LAHORE–J121–BATAL–J131–GILGIT–G325–PURPA– B215–KUQA–A460–REVKI–A360
6.6	B215/A368	DELHI–A466–LAHORE–J121–BATAL–J131–GILGIT–G325–PURPA– B215–FUKANG–A368-SARIN
6.7	B215/B206	DELHI–A466–LAHORE–J121–BATAL–J131–GILGIT–G325–PURPA– B215–FUKANG–B206–ALTAY

#### TRAFFIC INFORMATION BROADCASTS BY AIRCRAFT (TIBA) AND RELATED OPERATING PROCEDURES

(See Annex 11, Chapter 4, 4.2.2, Note 2)

### 1. Introduction and applicability of broadcasts

1.1 Traffic information broadcasts by aircraft are intended to permit reports and relevant supplementary information of an advisory nature to be transmitted by pilots on a designated VHF radiotelephone (RTF) frequency for the information of pilots of other aircraft in the vicinity.

- 1.2 TIBAs should be introduced only when necessary and as a temporary measure.
- 1.3 The broadcast procedures should be applied in designated airspace where:
  - a) there is a need to supplement collision hazard information provided by air traffic services outside controlled airspace; or
  - b) there is a temporary disruption of normal air traffic services.

1.4 Such airspaces should be identified by the States responsible for provision of air traffic services within these airspaces, if necessary with the assistance of the appropriate ICAO Regional Office(s), and duly promulgated in aero-nautical information publications or NOTAM, together with the VHF RTF frequency, the message formats and the procedures to be used. Where, in the case of 1.3 a), more than one State is involved, the airspace should be designated on the basis of regional air navigation agreements and promulgated in Doc 7030.

1.5 When establishing a designated airspace, dates for the review of its applicability at intervals not exceeding 12 months should be agreed by the appropriate ATS authority(ies).

## 2. Details of broadcasts

### 2.1 **VHF RTF frequency to be used**

2.1.1 The VHF RTF frequency to be used should be determined and promulgated on a regional basis. However, in the case of temporary disruption occurring in controlled airspace, the States responsible may promulgate, as the VHF RTF frequency to be used within the limits of that airspace, a frequency used normally for the provision of air traffic control service within that airspace. (For the purpose of this contingency scheme, broadcasts shall be made on 128.95 MHz).

2.1.2 Where VHF is used for air-ground communications with ATS and an aircraft has only two serviceable VHF sets, one should be tuned to the appropriate ATS frequency and the other to the TIBA frequency.

#### 2.2 Listening watch

A listening watch should be maintained on the TIBA frequency 10 minutes before entering the designated airspace until leaving this airspace. For an aircraft taking off from an aerodrome located within the lateral limits of the designated airspace listening watch should start as soon as appropriate after take-off and be maintained until leaving the airspace.

#### 2.3 **Time of broadcasts**

2.3.1 A broadcast should be made:

- a) 10 minutes before entering the designated airspace or, for a pilot taking off from an aerodrome located within the lateral limits of the designated airspace, as soon as appropriate after take-off;
- b) 10 minutes prior to crossing a reporting point;
- c) 10 minutes prior to crossing or joining an ATS route;
- d) at 20-minute intervals between distant reporting points;
- e) 2 to 5 minutes, where possible, before a change in flight level;
- f) at the time of a change in flight level; and
- g) at any other time considered necessary by the pilot.

### 2.4 Forms of broadcast

2.4.1 The broadcasts other than those indicating changes in flight level, i.e. the broadcasts referred to in 2.3 a), b), c), d) and g), should be in the following form:

ALL STATIONS (necessary to identify a traffic information broadcast)

(call sign)

FLIGHT LEVEL (number) (or CLIMBING* TO FLIGHT LEVEL (number))

(direction)

(ATS route) (or DIRECT FROM (position) TO (position))

POSITION (position**) AT (time)

ESTIMATING (next reporting point, or the point of crossing or joining a designated ATS route) AT (time)

## Appendix D

(call sign)

FLIGHT LEVEL (number) (direction)

*Fictitious example:* 

"ALL STATIONS WINDAR 671 FLIGHT LEVEL 350 NORTHWEST BOUND DIRECT FROM PUNTA SAGA TO PAMPA POSITION 5040 SOUTH 2010 EAST AT 2358 ESTIMATING CROSSING ROUTE LIMA THREE ONE AT 4930 SOUTH 1920 EAST AT 0012 WINDAR 671 FLIGHT LEVEL 350 NORTHWEST BOUND OUT"

2.4.2 Before a change in flight level, the broadcast (referred to in 2.3 e)) should be in the following form:

ALL STATIONS

(call sign)

(direction)

(ATS route) (or DIRECT FROM (position) TO (position))

LEAVING FLIGHT LEVEL (number) FOR FLIGHT LEVEL (number) AT (position and time)

2.4.3 Except as provided in 2.4.4, the broadcast at the time of a change in flight level (referred to in 2.3 f)) should be in the following form:

ALL STATIONS

(call sign) (direction)

(ATS route) (or DIRECT FROM (position) TO (position))

LEAVING FLIGHT LEVEL (number) NOW FOR FLIGHT LEVEL (number)

followed by:

ALL STATIONS

(call sign)

MAINTAINING FLIGHT LEVEL (number)

2.4.4 Broadcasts reporting a temporary flight level change to avoid an imminent collision risk should be in the following form:

ALL STATIONS

(call sign)

LEAVING FLIGHT LEVEL (number) NOW FOR FLIGHT LEVEL (number)

followed as soon as practicable by:

#### Appendix D

## ALL STATIONS

(call sign)

#### RETURNING TO FLIGHT LEVEL (number) NOW

#### 2.5 Acknowledgement of the broadcasts

The broadcasts should not be acknowledged unless a potential collision risk is perceived.

## 3. Related operating procedures

## 3.1 Changes of cruising level

3.1.1 Cruising level changes should not be made within the designated airspace, unless considered necessary by pilots to avoid traffic conflicts, for weather avoidance or for other valid operational reasons.

3.1.2 When cruising level changes are unavoidable, all available aircraft lighting which would improve the visual detection of the aircraft should be displayed while changing levels.

## 3.2 Collision avoidance

If, on receipt of a traffic information broadcast from another aircraft, a pilot decides that immediate action is necessary to avoid an imminent collision risk, and this cannot be achieved in accordance with the right-of-way provisions of Annex 2, the pilot should:

- a) unless an alternative manoeuvre appears more appropriate, immediately descend 150 m (500 ft), or 300m (1 000 ft) if above FL 290 in an area where a vertical separation minimum of 600 m (2 000 ft) is applied;
- b) display all available aircraft lighting which would improve the visual detection of the aircraft;
- c) as soon as possible, reply to the broadcast advising action being taken;
- d) notify the action taken on the appropriate ATS frequency; and
- e) as soon as practicable, resume normal flight level, notifying the action on the appropriate ATS frequency.

### 3.3 Normal position reporting procedures

Normal position reporting procedures should be continued at all times, regardless of any action taken to initiate or acknowledge a traffic information broadcast.

Appendix D

ICAO Traffic Information Broadcasts by Aircraft

_____

### IATA IN-FLIGHT BROADCAST PROCEDURE (IFBP) AFI REGION

## 1. **LISTENING WATCH**

1.1 A listening watch should be maintained on the designated frequency (126.9MHz in AFI Region), 10 minutes before entering the designated airspace until leaving this airspace. For an aircraft taking-off from an aerodrome located within the lateral limits of the designated airspace, listening watch should start as soon as appropriate and be maintained until leaving the airspace.

### 2. TIME OF BROADCAST

- 2.1 A broadcast should be made in English:
  - a) 10 minutes before entering the designated airspace or, for a pilot taking-off from an aerodrome located within the lateral limits of the designated airspace, as soon as appropriate;
  - b) 5 minutes prior to crossing a reporting point;
  - c) 5 minutes prior to crossing or joining an ATS route;
  - d) at 20 minute intervals between distant reporting points;
  - e) 2 to 5 minutes, where possible, before a change in flight level;
  - f) at the time of a change in flight level; and
  - g) at any other time considered necessary by the pilot.

## 3. **OPERATING PROCEDURES**

3.1 Changes of Cruising Level

3.1.1 Cruising level change should not be made within the designated airspace unless considered necessary by pilots to avoid traffic conflicts, for weather avoidance, or for other valid operational reasons.

3.1.2 When cruising level changes are unavoidable, all available aircraft lighting which would improve the visual detection of the aircraft should be displayed while changing levels.

#### 3.2 Collision Avoidance

3.2.1 If, on receipt a traffic information broadcast from another aircraft, a pilot decides that immediate action is necessary to avoid an imminent collision risk to his aircraft, and this cannot be achieved in accordance with the right-of-way provisions of Annex 2, he should:

- a) unless an alternative manoeuvre appears more appropriate descend immediately 1000 ft if above FL290 or 500 ft if at or below FL290;
- b) display all available aircraft lighting which would improve the visual detection of the aircraft;
- c) as soon as possible reply to the broadcast advising action being taken;
- d) notify the action taken on the appropriate ATS frequency; and
- e) as soon as situation has been rectified, resume normal flight level, notifying the action on the appropriate ATS frequency.
- 3.3 Normal Position Reporting Procedures

3.3.1 Normal position reporting procedures should be continued at all times, regardless of any action taken to initiate or acknowledge a traffic information broadcast.

3.4 Operation of Transponders

3.4.1 Pilots should ensure that transponder procedures as contained in ICAO PANS OPS Doc 8168 are complied with and in the absence of other directions from ATC, operate the transponder on Mode A and C Code  $2000^{1}$ .

3.5 Use of TCAS

3.5.1 TCAS equipped aircraft should have TA/RA mode selected at maximum range.

### 4. **THE IFBP IN AFI**

4.1 In many FIRs in the AFI Region communications both fixed and mobile have either not been implemented or operate well below the required reliability. This has an impact on the proper provision of Air Traffic Services, especially flight information service. Consequently, the AFI Regional Technical Conference has decided that the IATA In-Flight Broadcast Procedure (IFBP) should be used within designated FIRs in the region as an interim measure until such time as communications facilities affecting the FIR in question have been improved.

### 5. **DESIGNATED FREQUENCY IN AFI**

5.1 In the AFI Region the designated frequency for the IFBP is 126.9 MHz.

¹ Pilots are advised to ensure operation of transponders even when outside radar coverage in order to enable TCAS equipped aircraft to identify conflicting traffic.

#### 6. **AREA OF APPLICATION**

6.1 In the AFI Region the IFBP should be applied in the following FIRs and airspaces:

Accra	Beira	Entebbe	Lilongwe	N'Djamena
Addis Ababa	Brazzaville	Kano	Luanda	Nairobi
Alger	Bujumbura	Khartoum	Lusaka	Niamey
Antananarivo	Dakar	Kigali	Mauritius	Roberts
Asmara	Dar es Salaam	Kinshasa	Mogadishu	Tripoli

6.2 The In-Flight Broadcast Procedure need not be applied in the following FIRs:

Bloemfontein	Casablanca	Harare	Port Elizabeth	Tunis
Canaries	Dakar Oceanic	Johannesburg	Sal Oceanic	Windhoek
Cape Town	Durban			<b>X</b>

## 7. **ENFORCEMENT**

7.1 All airlines operating in the AFI region are requested to:

- a) ensure that their air crews are fully briefed on the procedure and area of application described;
- b) ensure that their charts and flight documentation are fully amended to reflect the foregoing;

7.2 Any operator reported to IATA as not applying the procedure shall be contacted immediately, informed of the procedure, and requested to apply it.

7.3 Attention is drawn to the fact that during the Haj Pilgrimage period the number of east-west flights in the North-Central part of the AFI Region increases dramatically and with it the risk of ATS incidents and the importance of the In-Flight Broadcast Procedure.

### 8. **REVIEW**

8.1 The procedure and its area of applicability shall be reviewed by the AFI Regional Coordination Group from time to time and FIRs in which the procedure is to be applied may be added or excluded as necessary.

## 9. **DISTRIBUTION**

9.1 To assist in ensuring its widest possible applicability the procedure is distributed to all known operators in the AFI Region, as well as to the following agencies/organizations:

ATLAS	KSS department	(Chart :)	IBAA	Jeppesen
IAOPA	FAA		IACA	NATO

## EXAMPLE OF A BROADCAST

- a) "ALL STATIONS" given only once to attract attention;
- b) "THIS IS AZ....." (callsign);
- c) "FL....";
- d) "NORTHEASTBOUND LAGOS-ROME VIA UA400";
- e) "POSITION.....AT.....(UTC)";
- f) "ESTIMATING POSITION.....AT.....(UTC)";
- g) "AZ...." (callsign)
- h) "FL....."
- i) "NORTHEASTBOUND" (direction of flight through the area).

Appendix F Traffic Acceptance Rates

## ICAO INTERCEPTION PROCEDURES

#### Article 3 bis*

*a)* The contracting States recognize that every State must refrain from resorting to the use of weapons against civil aircraft in flight and that, in case of interception, the lives of persons on board and the safety of aircraft must not be endangered. This provision shall not be interpreted as modifying in any way the rights and obligations of States set forth in the Charter of the United Nations.

(Extract from ICAO Annex 2 — *Rules of the Air*)

## 3.8 Interception

Note.— The word "interception" in this context does not include intercept and escort service provided, on request, to an aircraft in distress, in accordance with Volumes II and III of the International Aeronautical and Maritime Search and Rescue Manual (Doc 9731).

3.8.1 Interception of civil aircraft shall be governed by appropriate regulations and administrative directives issued by Contracting States in compliance with the Convention on International Civil Aviation, and in particular Article 3(d) under which Contracting States undertake, when issuing regulations for their State aircraft, to have due regard for the safety of navigation of civil aircraft. Accordingly, in drafting appropriate regulations and administrative directives due regard shall be had to the provisions of Appendix 1, Section 2 and Appendix 2, Section 1.

Note.— Recognizing that it is essential for the safety of flight that any visual signals employed in the event of an interception which should be undertaken only as a last resort be correctly employed and understood by civil and military aircraft throughout the world, the Council of the International Civil Aviation Organization, when adopting the visual signals in Appendix 1 to this Annex, urged Contracting States to ensure that they be strictly adhered to by their State aircraft. As interceptions of civil aircraft are, in all cases, potentially hazardous, the Council has also formulated special recommendations which Contracting States are urged to apply in a uniform manner. These special recommendations are contained in Attachment A.

3.8.2 The pilot-in-command of a civil aircraft, when intercepted, shall comply with the Standards in Appendix 2, Sections 2 and 3, interpreting and responding to visual signals as specified in Appendix 1, Section 2.

*Note.*—*See also 2.1.1 and 3.4.* 

^{*} On 10 May 1984 the Assembly amended the Convention by adopting the Protocol introducing Article 3 *bis*. Under Article 94 *a*) of the Convention, the amendment came into force on 1 October 1998 in respect of States which have ratified it.

## INTERCEPTION OF CIVIL AIRCRAFT

## (Appendix 2 of ICAO Annex 2 — Rules of the Air)

(Note.— See Chapter 3, 3.8 of the Annex)

## 1. Principles to be observed by States

1.1 To achieve the uniformity in regulations which is necessary for the safety of navigation of civil aircraft due regard shall be had by Contracting States to the following principles when developing regulations and administrative directives:

- a) interception of civil aircraft will be undertaken only as a last resort;
- b) if undertaken, an interception will be limited to determining the identity of the aircraft, unless it is necessary to return the aircraft to its planned track, direct it beyond the boundaries of national airspace, guide it away from a prohibited, restricted or danger area or instruct it to effect a landing at a designated aerodrome;
- c) practice interception of civil aircraft will not be undertaken;
- d) navigational guidance and related information will be given to an intercepted aircraft by radiotelephony, whenever radio contact can be established; and
- e) in the case where an intercepted civil aircraft is required to land in the territory overflown, the aerodrome designated for the landing is to be suitable for the safe landing of the aircraft type concerned.

Note.— In the unanimous adoption by the 25th Session (Extraordinary) of the ICAO Assembly on 10 May 1984 of Article 3 bis to the Convention on International Civil Aviation, the Contracting States have recognized that "every State must refrain from resorting to the use of weapons against civil aircraft in flight."

1.2 Contracting States shall publish a standard method that has been established for the manoeuvring of aircraft intercepting a civil aircraft. Such method shall be designed to avoid any hazard for the intercepted aircraft.

Note.— Special recommendations regarding a method for the manoeuvring are contained in Attachment A, Section 3.

1.3 Contracting States shall ensure that provision is made for the use of secondary surveillance radar, where available, to identify civil aircraft in areas where they may be subject to interception.

## 2. Action by intercepted aircraft

- 2.1 An aircraft which is intercepted by another aircraft shall immediately:
  - a) follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with the specifications in Appendix 1;

- b) notify, if possible, the appropriate air traffic services unit;
- c) attempt to establish radio communication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121.5 MHz, giving the identity of the intercepted aircraft and the nature of the flight; and if no contact has been established and if practicable, repeating this call on the emergency frequency 243 MHz; and
- d) if equipped with SSR transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate air traffic services unit.

2.2 If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.

2.3 If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.

## 3. Radio communication during interception

If radio contact is established during interception but communication in a common language is not possible, attempts shall be made to convey instructions, acknowledgement of instructions and essential information by using the phrases and pronunciations in Table 2.1 and transmitting each phrase twice:

Phra	ses for use by INI	TERCEPTING aircraft	Phro	ases for use by IN	TERCEPTED aircraft
Phrase	Pronunciation1	Meaning	Phrase	Pronunciation1	Meaning
CALL SIGN	<u>KOL</u> SA-IN	What is your call sign?	CALL SIGN (call sign)2	KOL SA-IN (call sign)	My call sign is (call sign)
FOLLOW	FOL-LO	Follow me	WILCO	<u>VILL</u> -KO	Understood Will comply
DESCEND	DEE- <u>SEND</u>	Descend for landing	CAN NOT	<u>KANN</u> NOTT	Unable to comply
YOU LAND	YOU LAAND	Land at this aerodrome	REPEAT	REE-PEET	Repeat your instruction
PROCEED	PRO- <u>SEED</u>	You may proceed	AM LOST	AM LOSST	Position unknown
			MAYDAY	MAYDAY	I am in distress
			HIJACK3	<u>HI-JACK</u>	I have been hijacked
	4		LAND (place name)	LAAND (place name)	I request to land at (place name)
			DESCEND	DEE- <u>SEND</u>	I require descent

### Table 2.1

.In the second column, syllables to be emphasized are underlined.

2. The call sign required to be given is that used in radiotelephony communications with air traffic services units and corresponding to the aircraft identification in the flight plan.

-----

3. Circumstances may not always permit, nor make desirable, the use of the phrase "HIJACK".

## **CONTINGENCY CONTACT DETAILS**

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
BAHRAIN						
<mark>Mr. Mohamed Ahmed</mark> Juman	973 321031/80 INMARSAT: 873 763688478 (H24)			973 321029 INMARSAT: 873 763688 479	cmcan@bahrain.gov.bh	Air Navigation Crisis Management Centre Operational on H24
Ali Ahmed Mohammed	+ 973 17321116		+ 973 39969399	+ 973 17329977	aliahmed@caa.gov.bh	
Sleem Mohammed Hasan	+ 973 17321117		+ 973 39608860	+ 973 17329977	sleemmh@caa.gov.bh	
Air Traffic Duty Supervisor	+ 973 17321081 + 973 17321082			+ 973 17329966		
EGYPT						
<mark>Mr. Mohamed Alkady</mark>	2022657849	<mark>202 6391792</mark>	20 106504438	202 2680627	elkady@nansceg.org mielkady@hotmail.com	
Mr. Aly Hussien Aly	<mark>202 6373950</mark>	<mark>202 4178460</mark>	<mark>20101609760</mark>	202 2680627		
IRAN Mr. M. Rasouli Nejad Deputy of IAC in Operations	+98214454435		+989123874921			
Mr. E. Shoustari General Director Of ATS	+982144544101		+989121861900	+982144544102		
Mr. A. Majzoubi Chief of ACC	+982144544114		+989123053095			
Mr. A. Golmohammadi DG of Operations	98214525493					Note during New Year Holidays in Iran (20 March – 5 April) Contact the Dep. of CAO in Operation or the Deps. of ATS
Mr. Momenirokh		<mark>21 4400753</mark>	<mark>98 9132274798</mark>	<mark>98214527194</mark>		

# Appendix F Traffic Acceptance Rates

NAMES	PHONE	PHONE	MOBILE	FAX	E-MAIL	OTHER CONTACT
	(WORK)	(HOME)	PHONE			DETAILS
Deputy of CAO in Operation						
Mr. E.Shoushtari Deputy of ATS Dept.		<mark>21 6014235</mark>	<mark>98 911286100</mark>			
Mr. Khodakarami Deputy of ATS Dept.		<mark>21 4087386</mark>	<mark>98 9132843796</mark>			
JORDAN						
Mr. Majed Yousef	<mark>9626 4897729</mark>		<mark>0795020100</mark>	<mark>9626 4891266</mark>	majedaqeel@yahoo.com	
Aqeel Director, ATM						
KUWAIT						
<mark>Eng. Fozan M. Al-</mark> Fozan	<mark>9654760421</mark>			<mark>9654319232</mark>	<del>cvnedd@qualitynet.net</del>	
Mr. Mukhled Kh. Al- Sawagh	+ 965 24346220		+ 965 97666979	+ 965 24346221	q8dgca_danoff@hotmail.com	
LEBANON					1994	
Walid Al Hassanieh	+ 961 1 628178		+961 70474517	+961 1 629023	hassaniehw@beirutairport.gov.lb	AFTN olbazpzx
Chief Air Navigation						
Dept. OMAN						
Mr. Abdullah Nasser Al-Harthy	<mark>968519201</mark>		<mark>9689476806</mark>	<mark>968519939</mark> /519930	Abdullah_nasser@dgcam.com.om	
Mr. Saud Al-Adhoobi	<mark>968519305</mark>		<mark>9689321664</mark>	968519939/519930	saud@dgcam.com.om	
SAUDI ARABIA	<del>700317303</del>		700732100 <del>1</del>	7005177577517750		
Mr. Mohammad Al Alawi	<mark>96626401005</mark>		<mark>96655621582</mark>	9662 6401005	alalawi_m@yahoo.com	
SYRIA						
Mr.Hussein. Mahfoud	<mark>963 113333815</mark>		093222553		dgca@net.sy	
Director General of	<del>,</del>				agenenous	
Civil Aviation						
UNITED ARAB EMIRATES (UAE)						
Mr. Riis Johansen	<mark>9712 4054216</mark>		7	<mark>9712 4054316</mark>	atmuae@emirates.net.ae	
Director, Air Navigation Services	2712 102 1210					
Navigation Services						

# Appendix F Traffic Acceptance Rates

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
<b>YEMEN</b>						
Mr. Saleh A. Al-Theeb	<mark>9671 345402</mark>	<mark>9671 344048</mark>	<mark>73715516</mark>	<mark>9671 345403</mark>	San1ans@hotmail.com	
IATA – MID						
Faqir Jehad	<mark>962 6 5698728</mark>	<mark>962 6 5811 994</mark>	<mark>962 79 5966559</mark>	962 6 5604548	<u>Faqirj@iata.org</u>	
ICAO Cairo						
S. Al Adhoobi (RO/ATM)	202 267 4845 ext 104		201 113910327	202 267 4843	sadhoobi@cairo.icao.int	
M.R. Khonji (DRD)	202 267 4841 ext. 116/115	202 415 2073	201 232 14946	202 267 4843	mkhonji@cairo.icao.int mkhonji@hotmail.com	
ICAO Headquarters –						
Montreal						
Vince Galotti (C/ATM)	1 514 954-6711	1 514 281-0731	1 514 951-0283	1-514-954 8197	vgalotti@icao.int	
Chris Dalton (TO/ATM)	1 514 954-8219 ext. 6710	1 514 485-3635		1-514-954 8197	cdalton@icao.int	
Gustavo De Leon (TO/ATM)	1 514 954-8219 ext. 6199	1 514 482-7182	1 514 883-4847	1-514-954 8197	gdeleon@icao.int g_deleon_p@hotmail.com	
Aleksandar Pavlovic (C/AIS/MAP)	1-514 954 8162	1-514 932 7632		1-514-954 6077	apavlovic@icao.int	
Hindupur Sudarshan (TO/RAO)	1-514 954 8219 ext 8190	1-514 486 4041		1-514-954 6077	hsudarshan@icao.int	

-----

# ARN TF/5 Appendix 3D to the Report on Agenda Item 3

## **CONTINGENCY AGREEMENT STATUS**

STATE	CORRESPONDING STATES	STATUS	SOFT COPIES SENT TO ICAO
BAHRAIN	IRAN KUWAIT OMAN QATAR SAUDI ARABIA UAE	Signed Signed Signed Signed Signed	Sent
EGYPT	GREECE JORDAN LYBIA CYPRUS SAUDI ARABIA SUDAN	Signed	Sent
IRAN	ARMENIA AZERBAIJAN TURKMANISTAN AFGHANISTAN BAHRAIN IRAQ KUWAIT OMAN PAKISTAN TURKEY UAE	Signed Signed Signed	Sent
IRAQ	IRAN JORDAN KUWAIT SAUDI ARABIA SYRIA TURKEY		Sent

## ARN TF/5- REPORT Appendix 3D

STATE	CORRESPONDING STATES	STATUS	SOFT COPIES SENT TO ICAO
JORDAN	EGYPT IRAQ ISRAEL SAUDI ARABIA SYRIA	Signed	Sent
KUWAIT	BAHRAIN IRAN IRAQ SAUDI ARABIA	Signed Signed	
LEBANON	CYPRUS SYRIA		
OMAN	BAHRAIN INDIA IRAN PAKISTAN UAE YEMEN	Signed Signed Signed Signed	Sent
QATAR	BAHRAIN SAUDI ARABIA UAE	Signed	
SAUDI ARABIA	BAHRAIN EGYPT ERITREA IRAQ JORDAN KUWAIT SUDAN YEMEN	Signed Signed Signed	
SYRIA	IRAQ JORDAN LEBANON CYPRUS TURKEY		

STATE	CORRESPONDING STATES	STATUS	SOFT COPIES SENT TO ICAO
UAE	BAHRAIN IRAN OMAN QATAR	Signed Signed	Sent
YEMEN	DJIBOUTI ERITREA ETHIOPIA INDIA OMAN SAUDI ARABIA SOMALIA	Signed	

-----

## ARN TF/5 Appendix 3E to the Report on Agenda Item 3

## **CONTINGENCY CONTACT DETAILS**

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
BAHRAIN	(() 0111)	(1101/112)				
Mr. Mohamed Ahmed	<mark>973 321031/80</mark>			<mark>973 321029</mark>	<mark>cmcan@bahrain.gov.bh</mark>	Air Navigation Crisis
<mark>Juman</mark>	INMARSAT:			<mark>INMARSAT:</mark>		<mark>Management Centre</mark>
	<mark>873-763688478</mark> <del>(H24)</del>			<mark>873-763688-479</mark>		Operational on H24
Ali Ahmed Mohammed	+ 973 17321116		+ 973 39969399	+ 973 17329977	aliahmed@caa.gov.bh	
Sleem Mohammed Hasan	+ 973 17321117		+ 973 39608860	+ 973 17329977	<mark>sleemmh@caa.gov.bh</mark>	
Air Traffic Duty	+ 973 17321081			+ 973 17321029		
Supervisor	+ 973 17321082					
EGYPT						
<mark>Mr. Mohamed Alkady</mark>	2022657849	<mark>202 6391792</mark>	20 106504438	202 2680627	elkady@nansceg.org mielkady@hotmail.com	
Mr. Aly Hussien Aly	202 6373950	<mark>202 4178460</mark>	<mark>20101609760</mark>	<mark>202 2680627</mark>		
IRAN	+98214454435		+989123874921			
Mr. M. Rasouli Nejad						
Deputy of IAC in Operations						
Mr. E. Shoustari	+982144544101		+989121861900	+982144544102		
General Director Of ATS						
Mr. A. Majzoubi	+982144544114		+989123053095			
Chief of ACC Mr. A. Golmohammadi	<mark>98214525493</mark>					Nete Aurine New Y
Mr. A. Golmohammadi	<del>98214323493</del>					<del>Note during New Year</del> <del>Holidays in Iran (20</del>
DO OF OPPERATORS						March 5 April)
						Contact the Dep. of
						CAO in Operation or

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT
	(WOKK)	(HOME)	PHONE			DETAILS the Deps. of ATS
Mr. Momenirokh		<mark>21 4400753</mark>	<mark>98 9132274798</mark>	<mark>98214527194</mark>		<del>me Deps. oj mis</del>
Deputy of CAO in		21 ++00755	<del>707152214170</del>	<mark>70214527174</mark>		
Operation						
Mr. E.Shoushtari		<mark>21 6014235</mark>	<mark>98 911286100</mark>			
Deputy of ATS Dept.						
Mr. Khodakarami	21 4087386		98 9132843796			
Deputy of ATS Dept.						
JORDAN						
Mr. Khalaf Al-	+ 962 6 4451 672		+962777904724	+962 4452 312	kshowbki@yahoo.co.nz	
Showbaki	+ 962 6 4451 607					
Mr. Majed Yousef	<mark>9626 4897729</mark>		<mark>0795020100</mark>	<mark>9626 4891266</mark>	<mark>majedaqeel@yahoo.com</mark>	
Aqeel						
Director, ATM						
<mark>KUWAIT</mark> <del>Eng. Fozan M. Al-</del>	<del>9654760421</del>			<del>9654319232</del>	cvnedd@qualitynet.net	
<del>Elig. Fozali M. Al-</del> <mark>Fozan</mark>	<del>9034700421</del>			<del>9034319232</del>	<del>cvnedd@quantynet.net</del>	
Mr. Mukhled Kh. Al-	+ 965 24346220		+ 965 97666979	+ 965 24346221	q8dgca_danoff@hotmail.com	
Sawagh						
LEBANON						
Walid Al Hassanieh	+ 961 1 628178		+961 70474517	+961 1 629023	hassaniehw@beirutairport.gov.lb	AFTN olbazpzx
Chief Air Navigation						
Dept. OMAN						
Mr. Abdullah Nasser	<mark>968519201</mark>		<mark>9689476806</mark>	<mark>968519939</mark>	Abdullah_nasser@dgcam.com.om	
Al-Harthy	700517201		<b>2007</b> 70000	<mark>/519930</mark>		
Mr. Saud Al-Adhoobi	<mark>968519305</mark>		<mark>9689321664</mark>	968519939/519930	saud@dgcam.com.om	
SAUDI ARABIA						
Mr. Mohammad Al	<mark>96626401005</mark>		<mark>96655621582</mark>	<mark>9662 6401005</mark>	alalawi_m@yahoo.com	
<mark>Alawi</mark>						
SYRIA						
Mr.Hussein. Mahfoud	<mark>963 113333815</mark>		<mark>093222553</mark>		dgca@net.sy	
Director General of						
Civil Aviation						
UNITED ARAB						
<b>EMIRATES (UAE)</b>						

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
Mr. Ahmed Al Jallaf Executive Director ANS	971 2 599 6888		971 50 614 9065	971 2 599 5883	aljallaf@szc.gcaa.ae	AFTN: OMAEZQZX OMAEYAYH
Mr. Riis Johansen Director, Air Navigation Services YEMEN	<del>9712 4054216</del>			9712 4054316	atmuac@emirates.net.ae	
Mr. Saleh A. Al-Theeb	<mark>9671 345402</mark>	<mark>9671 344048</mark>	73715516	<mark>9671 345403</mark>	San1ans@hotmail.com	
IATA – MID						
Faqir Jehad	<mark>962 6 5698728</mark>	962 6 5811 994	<mark>962 79 5966559</mark>	962 6 5604548	<u>Faqirj@iata.org</u>	
ICAO Cairo						
S. Al Adhoobi (RO/ATM)	202 267 4845 ext 104		201 113910327	202 267 4843	sadhoobi@cairo.icao.int	
M.R. Khonji (DRD)	202 267 4841 ext. 116/115	202 415 2073	201 232 14946	202 267 4843	mkhonji@cairo.icao.int mkhonji@hotmail.com	
ICAO Headquarters – Montreal						
Vince Galotti (C/ATM)	1 514 954-6711	1 514 281-0731	1 514 951-0283	1-514-954 8197	vgalotti@icao.int	
Chris Dalton (TO/ATM)	1 514 954-8219 ext. 6710	1 514 485-3635		1-514-954 8197	cdalton@icao.int	
Gustavo De Leon (TO/ATM)	1 514 954-8219 ext. 6199	1 514 482-7182	1 514 883-4847	1-514-954 8197	gdeleon@icao.int g_deleon_p@hotmail.com	
Aleksandar Pavlovic (C/AIS/MAP)	1-514 954 8162	1-514 932 7632		1-514-954 6077	apavlovic@icao.int	
Hindupur Sudarshan (TO/RAO)	1-514 954 8219 ext 8190	1-514 486 4041		1-514-954 6077	hsudarshan@icao.int	

------

#### ARN TF/5 Report on Agenda Item 4

## REPORT ON AGENDA ITEM 4: AMENDMENTS TO THE ATS ROUTE NETWORK CATALOGUE

4.1 The MID ATS Route Catalogue developed within the context of the ARN TF, is used as ATS route development/planning tool. It contains a list of ATS route proposals that have been agreed within the framework of the ARN TF and ATM/SAR/AIS SG.

4.2 The ATS Route Catalogue has been developed mainly to include proposals for further consideration/processing until such time a consensus is reached regarding the proposal(s) to be included in the MID Basic ANP and implemented by concerned States

4.3 The meeting recalled that the ARN TF/4 meeting re-iterated that the formal approval of the amendments to the ATS Route Network is the responsibility of ICAO and accordingly, the procedure for amendment of the Basic Air Navigation Plan, as approved by the ICAO Council, should be respected. Furthermore the States should follow ICAO established procedures and format for the amendment of the MID Basic ANP for their required ATS route changes, as at **Appendix 4A** to the Report on Agenda Item 4, as endorsed by MIDANPIRG/12.

4.4 The meeting reviewed and updated the information in the MID ATS Route Catalogue to include the comments from the participating States and iFLEX ATS Route proposals relating to the MID Region where an extract of the discussions and updates are as at **Appendices 4B** and **4C** to the Report on Agenda Item 4.

4.5 IATA proposed to the meeting to address the following routes for implementation according to priority, taking into consideration the eminent benefits in terms of flight efficiency:

No	ATS Route Catalogue Reference	Remarks
1	Route reference RC-002	
2	Route reference RC-035	
3	Route reference RC-044	
4	Route reference RC-045	
5	Route reference RC-046	
6	Route reference RC-047	
7	Route reference RC-053	
8	Route reference RC-055	
9	Route reference RC-056	
10	Route reference RC-057	
11	Route reference RC-058	
12	Route reference RC-059	
13	Route reference RC-070	
14	Route reference RC-081	
15	Route reference RC-082	
16	Route reference RC-083	
17	Route reference RC-084	

### ARN TF/5 Report on Agenda Item 4

4.6 IATA further recommended that the following routes may be deleted from the route catalogue provided that the indicated conditions are met:

No	<b>ATS Route Catalogue Reference</b>	Remarks
1	Route reference RC-005, provided	
	that route R659 is implemented	
2	Route reference RC-006	
3	Route reference RC-007, provided	
	that route A791 is implemented as a	
	bi-directional route	
4	Route reference RC-018, should	
	DATOK-MITSA be used as an	
	alternative	
5	Route reference RC-068	
6	Route reference RC-085	

4.7 IATA informed the meeting that it is conducting a series of bilateral meetings with stakeholders in the region in order to facilitate the implementation of ATS routes on a regional level, and to accelerate the availability of efficient routing for airline operators, and , for the purpose of:

- a) engaging civil/military coordination in order agree to implement efficient routings in a flexible manner;
- b) engage State and ANSP to provide their views and identify ATS routes and agree to align and shorten such routes; and
- c) involve the airline operators in discussion to ensure operational requirement are met.

4.8 The meeting agreed to amend the ATS route catalogue according to the above priorities proposed by IATA.

-----

ARN TF/5 Appendix 4A to the Report on Agenda Item 4

### AMENDMENT PROPOSAL

## PROPOSAL FOR AMENDMENT OF THE ICAO MID AIR NAVIGATION PLAN (DOC 9708), VOLUME I BASIC ANP

(Serial No. MID Basic ANP Year/XX - ATM) (For ICAO Secretariat)

Name of proponent State......Xxxxxxxxx.....

Name of focal point (Drafter) ......Mr B. Yyyyyyyyyyy.....

- a) Plan: MID Basic Air Navigation Plan
- b) **Proposed amendment:** Editorial note: Amendments are arranged to show "deleted text" using strikeout (text to be deleted), and "added text" with grey shading (text to be inserted).

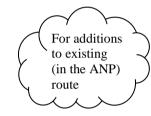
 $\bigcirc$ 

1) Add requirements for ATS routes B419 and UB419 as follows:

B419

G665

KING FAHD ALVON 2700.2N 05007.2E KURSI 275742N 0491918E KUWAIT

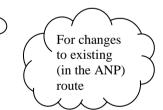


- UB419 KING FAHD ALVON 2700.2N 05007.2E KURSI 275742N 0491918E KUWAIT
- 2) Amend requirement for ATS routes G665 and UG665 as follows:

BASRAH ABADAN SHIRAZ * Note 5 (OI) NABOD 2816.1N 05825.8E EGSAL 2716.8N 06249.0E (PANJGUR)

UG665

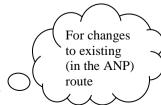
BASRAH ABADAN SHIRAZ * Note 5 (OI) NABOD 2816.1N 05825.8E EGSAL 2716.8N 06249.0E (PANJGUR)



3) Amend requirement for ATS route UL602 as follows:

UL602

BAHRAIN ALVON 270009N 0500711E*Note 7 SELEG 280130N 0492212E



4A-2

RAPSI 282326N 0490551E DARVA 284814N 0484734E KURSI 275742N 0491918E DASTI 282141N 0490259E ALVIX 2919.3N04824.2E FALKA 292611N 0481819E TASMI 300120N 0475505E BASRAH LOVEK 322206N 0444000E DELMI 331911N 0431731E ELEXI 344237N 0411054E DRZ 351724N 0401124E KUKSI 364508N 0374910E GAZ 365701N 0372824E

0

 $\bigcirc$ 

4) Add the requirement for ATS route B650 as follows:

BUNDU BATHA

To add a new route to the network

5) **Delete** the requirement for ATS routes G### as follows:

G###

 $\bigcirc$ SAMPL **OTHER** CROSS * Note 5 (OI) ROAMS 2916.1N 05825.8E GOING 2916.8N 06249.0E (DESTINATION)

To delete an existing (in the ANP) route. One of the reasons could be that the route is replaced by another

(cf. Table ATS 1, Chart ATS 1/2)

- c) Originated by: MIDANPIRG ATM/SAR/AIS/9, Special Baghdad FIR Coordination Meeting (SBFCM) (Cairo, 28-29 May 2008) and ATS Route Network Task Force/1 (ARN TF/1); Bahrain, Kuwait and Qatar.
- d) Originator's reasons for amendment:

As a result of a review of the ATS route requirements for the MID Region, the ATM/SAR/AIS/9 and ARN TF/1 agreed that ATS route G669 which had been removed from the requirements as an editorial error, should be restored. However, the requirement has been modified by removal of segment KARIATAIN-TONTU-AL SHIGAR, which had been found not to be practical. The ARN TF/1 agreed to the proposal by Bahrain and Qatar for the establishment of an ATS route BUNDU-BATHA (B650) to provide a link from Doha to the South into R659 at BATHA, to address immediate user needs. This provides an alternative to the segment Doha-MIGMA on ATS route R659/UR659, which remains unimplemented. The distance saving from currently available routing Doha to North and Southern Africa is about 204 nm per flight. Significant point MIGMA on ATS routes R659/UR659 in Bahrain FIR is to be replaced by BATHA at which a VOR (BAT) is located. The ARN TF/1 also endorsed the SBFCM proposal to extend G665 from Abadan to Basrah to make it accessible to route network in the Baghdad FIR.

Kuwait has proposed addition of ATS route B419 to the requirement. B419 had been removed from requirements in 2007 for future consideration. Kuwait has also proposed changes in trajectories of ATS routes UL602 and UP975 in order to achieve airspace efficiencies.

As soon as practicable after approval.

Afghanistan Bahrain Cyprus Egypt Iran, Islamic Republic of Iraq Israel Jordan Kuwait Lebanon Libyan Arab Jamahiriya

------

Oman Pakistan Qatar Saudi Arabia Sudan Syrian Arab Republic United Arab Emirates United States of America Yemen IATA IFALPA

**Ats:** The changes proposed herein are the result of work undertaken by the MIDANPIRG Subsidiary Bodies the Middle East Offices of ICAO and individual States in the Region to enhance traffic flows and ATS route efficiencies.

# e) Intended date of implementation:

f) Proposal circulated to following States and organizations:



g) Originator' Comments:

# ARN TF/5 Appendix 4B to the Report on Agenda Item 4

# RESULT OF DISCUSSIONS OF THE MID ATS ROUTE CATALOGUE DURING THE ARN TF/5 MEETING

MID/RC NUMBER	ATS ROUTE NAME	ENTRY-EXIT	DECISION
RC-001	SALWA – COPPI	SALWA – COPPI	Saudi Arabia to investigate a timed route option Still timed out route Same as RC 001 Whatever is related to A415 should be combined no change
<b>RC-002</b> Option 1,2 and 3	TONBA – KHG	TONBA – KHG	Egypt unable to accept route due to safety issues -Differed for the future
RC-003	VUSET – ITRAX	VUSET – ITRAX	Not feasible as the route crosses other Climb out and decent ATS route and further goes through a Danger Area. Differed for the future No change
RC-004	<del>Q707-<mark>UL681</mark></del>	EGNOV – SALWA	Implemented timed route Keep as is in the route Catalogue.
RC-005	SALWA – LOTOS – ASTIN	SALWA – LOTOS – ASTIN	An alternate RNAV1 route was proposed, and awaiting UAE response. No change
RC-049	R659	DOH-BAT	Expected implementation September 2011 as a timed out route Provided R659 implemented between DOH and BAT and RC049
			MID RC-005 / MID RC-049, UAE requested that due military issue to remove this route Doha will be addressed during the next meeting reference removing this route. Keep as is, until Qatar is present in the meeting for discussions route No change
RC-006	A415	DOH – SALWA – KIREN	Implemented timed route To be deleted Action completed
RC- 008/11	New parallel A/Way to UL550	UAE, Egypt and beyond	Combine both proposals. - Egypt restudy the route and to

## 4**B**-2

MID/RC NUMBER	ATS ROUTE NAME	ENTRY-EXIT	DECISION
			provide an update next ARN TF <mark>No change</mark>
RC-013	UAE to Pakistan, India, and beyond to Asia/Pacific	UAE to Pakistan, India, and beyond to Asia/Pacific	Iran has recently developed M561 which might provide interim relief. This is similar routing as MID/RC 020 Iran put further proposal from KANAS to GOKSO which covers UAE Pakistan to be removed from Catalogue. A letter to be sent to Oman requesting comments on the revised proposal to the Northern portion on RC-13. Not acceptable due to dense traffic crossings and goes through Danger Areas climbing descending traffic. To be differed indefinitely-Similar to RC-003 To be removed Completed
RC-018	New Route	Jordan to Cairo via <mark>DATOK</mark> <del>TBA</del> - W976	State and Military issues. Pending discussion between Egypt and Jordan
RC-019	DENDA R462 MIBSI P899 BUNDU	DENDA R462 MIBSI P899 BUNDU	Not feasible due to congestion (safety reasons) Differed for the future UAE has no issues if Oman agrees, but stated that the exit point from UAE FIR to Doha must be through MEKMA
RC-020	SODEB to/from MINAR	SODEB to/from MINAR	<ul> <li>Route was not supported by India</li> <li>Differed for the future No Change</li> </ul>
RC-025	R652	METSA- ZAJ	<ul> <li>Saudi Arabia and Jordan do not approve for the extension of Route in Iraq suggested removal waiting for Iraq feed back</li> <li>Proposal was presented by Jordan to use R652 as a departure Route from Amman into Iraq,</li> </ul>

4B-3	3
------	---

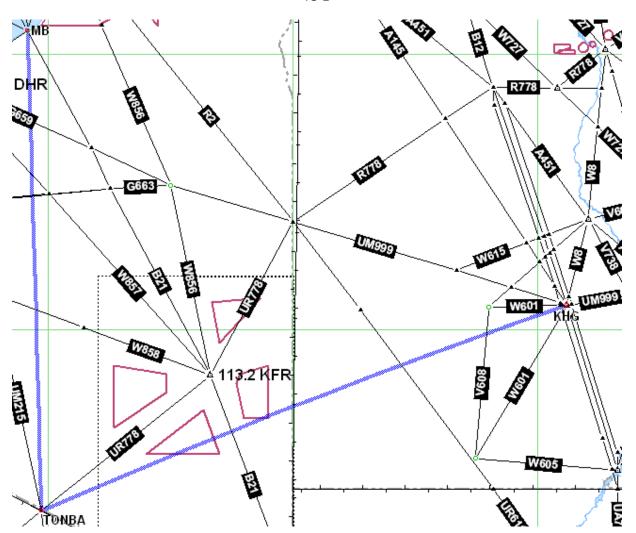
MID/RC NUMBER	ATS ROUTE NAME	ENTRY-EXIT	DECISION
			further discussion would be required between Jordan, Iraq and Saudi Arabia to finalize the proposal
RC-026	W3	DZF – VAN	Turkey urged Iraq to remove the data from their AIP, and is to be moved to the deferred Category. Differed for the future. To be removed action completed
RC-027	M320	KUA-RAPLU	<ul> <li>Not supported by Kuwait at present.</li> <li>Needs further studies</li> <li>Differed for the future</li> </ul>
RC- 037/038	MIDSI – DASDO IMDAT - MIDSI	MIDSI – DASDO IMDAT - MIDSI	<ul> <li>Another proposal put in by Bahrain and submitted to Iran</li> <li>Discussion complete Bahrain and Iran to Request Route designators and a proposal for amendment to be circulated once data is received by ICAO</li> </ul>
RC-053	New Route	BALTIM – SHM	Penetrates military airspace. <mark>No change</mark>
RC-055	New Route	MAK <mark>CVO</mark> , HGD, GIBAL	<ul> <li>L315 to be discussed with Saudi</li> <li>Arabia for direction of route.</li> <li>Route established</li> <li>L315 to be discussed with Saudi Arabia for direction of route</li> <li>To be followed up</li> <li>Both States agreed to study the proposal pending final agreement by June 2012</li> </ul>

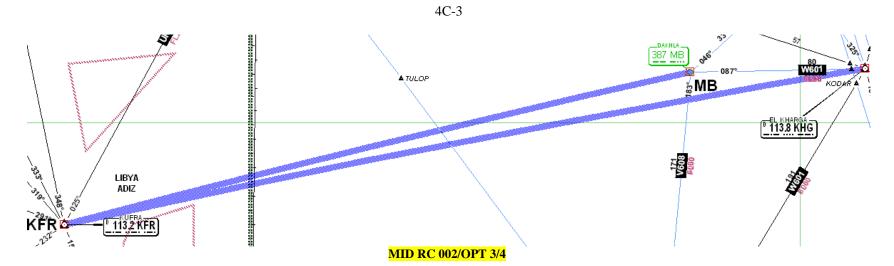
-----

# ARN TF/5 Appendix 4C to the Report on Agenda Item 4

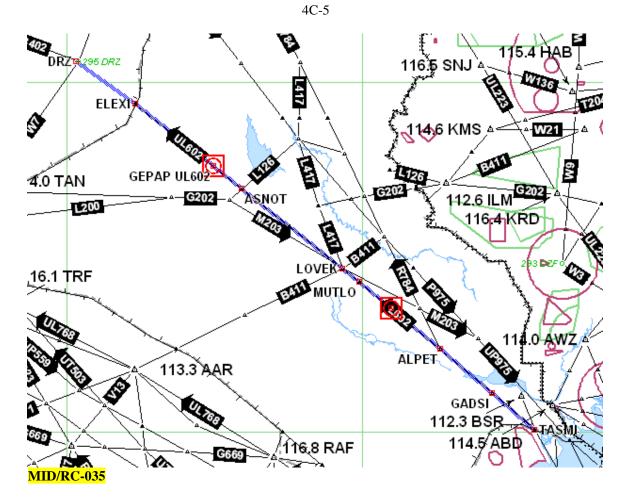
## MID ATS ROUTES CATALOGUE

MID/RC-002 (Option1,2,3			Entry-Exit: TONBA to KH	G	Inter-R Cross B	egional Reference			Users	High	Originator of Proposal	IATA		
(option1,2,5 and 4)	1,2,3       New AWY Proposed betw TONBA-KHG and KFR to (Dakhla) Or KHG         Route Description         TONBA (N21 35.3 E 0-19         125 26.9 E030 35.4)         TONBA (N21 35.3 E 0-19         5 25.2 E029 00.1)         KFR (N24 09.2 E023 18.5)         5 25.2 E029 00.1)         KFR (N24 09.2 E023 18.5)         5 25.2 E029 00.1)         KFR (N24 09.2 E023 18.5)         5 25.2 E029 00.1)         KFR (N24 09.2 E023 18.5)         5 25.2 E029 00.1)         KFR (N24 09.2 E023 18.5)		(Dakhla) Libya to Egypt	FIR	if any				Priority	mgn	Date of Proposal	ARN TF/1		
	Route Descript	on	States Concerned		ected lemen- n date	I	mplementation Statu	s	ANF	• Status	Action Taker	/Required	Deadline for each Action	
51.2) KHG (N25 26.9 (Opt 2) TONB 51.2) MB (N25 25.2 1 (Opt 3) KFR (N MB (N25 25.2 1 Or	KHG (N25 26.9 E030 35.4) (Opt 2) TONBA (N21 35.3 E 0-19 51.2) MB (N25 25.2 E029 00.1) (Opt 3) KFR (N24 09.2 E023 18.5) MB (N25 25.2 E029 00.1)				New AT		s route.				<ul> <li>Egypt highlig UM999 alread used by 3 to 5 also that com being upgrade station at Dak</li> <li>To be conside similarly to P</li> <li>Egypt will co Military and I establish boun Route will be based on (traf</li> </ul>	ly exists and is flights a day nunication is d with a new hla. red with and oposal 2 & 4. ordinate with ibya to dery point. considered	TBD	
											due to safety			
Expect 50 eastbound wkly flights, saving 91000Kg of fuel and 282T of CO2 wkly. The number may double if used westbound.										- Differed for t	ie future			
	Conclusions/Remarks Proposals 2, 4 and				er				·		Last updated	ARN 7 2012	F/5 February	

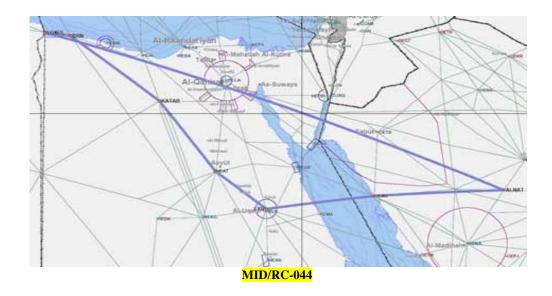




MID/RC-035	ATS Route Name: UL602	Entry-Exit: TASMI - ELEX	Inter-R Cross (I Referen if any		Users Priority	URGENT	Originator of Proposal Date of Proposal	Iraq RDGE/11	(Oct 2009)
	Route Description	States Concerned	Expected Implemen- tation date	Implementation Status	ANP	Status	Action Taken / Ro	equired	Deadline for each Action
GADSI         3033           ALPET         3112           ITBIT         3147           MUTLO         3210           LOVEK         322           DELMI         3319           ASNOT         3329           GEPAP         3349	120N 0475505E 358.08N 0471115.73E 219N 0461 44E 735.20N 0452916.57E 118.98N 0445702.83E 08.40N 044400.20E 918.31N 0431327.59E 359.55N 0425716.62E 305.80N 0422850.64E 130N 0410900E	Iraq Syria		Entire route Westbound	Suspended Damascus F	in the IR	Will be openened once         coordination       is         Baghdad       FIR are         Iraq considers         Points highlighted in         new.         Syria       requested         addition       to         examine       the commission	Conditional on Communication AIRAC date (25 Sept.2008) Pending acceptance by Syria, of status of communication infrastructure	
Flight Level Ba	and: FL240-FL460						requirements by FIR's.	concerned	
Potential City I	Pairs:				-		Once the communica are resolved it is exp the ATS route implemented.	pected that	
Conclusions/Re	emarks						Last updated	ARN 2012	TF/5 February

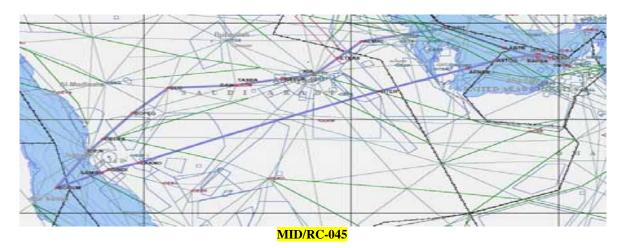


MID/RC-044	ATS Route N New Route	lame:		Entry-Exit:	ΔT	Inter-Regional Cross Reference if any				Users Priority	High	Originator of Proposal Date of Proposal	IATA ARN TF/2	
:	Route Description			States Concerned	Expected Implemen- In tation date		mplementation St	plementation Status		' Status	Action Taken / Required		Deadline for each Action	
				Egypt Saudi Arabia								Military reasons this time	not possible at	
Flight Level Ba	Flight Level Band:											No change		
HLLT, DTTA t	Potential City Pairs: DAAG, DTTA, GMMN HLLT, DTTA to OBBI, OMAA, OMDB, OTBI (Central and Eastern Arabian Peninsula to Maghreb area)											Implement if possi Priority Routes	ble	
										-				
Conclusions/Remarks Saving 104 miles, 5051 Kg Co2 per flight.												Last updated	ARN 2012	FF/5 February

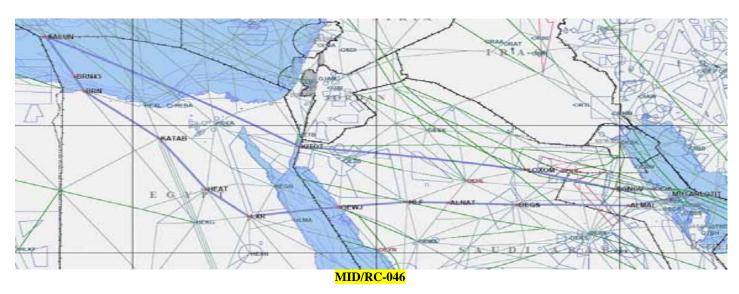


- 1	$\mathbf{C}$	7
-4	U.	-/

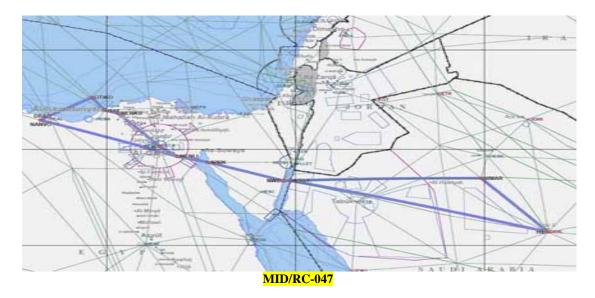
MID/RC-045	ATS Route I New Route	Name:		Entry-Exit: BOGUM-ASTOG		Inter-Regional Cross Reference if any				Users Priority		Originator Proposal Date of Propo	of sal	IATA ARN TF/2		
Route Description			States Concerned	Implei	Expected mplemen-		Implementation Status		ANP Status		Action Taken / Required			line for Action		
			Bahrain, Qatar, Saudi Araiba, Sudan, United Arab Emirates								Keep it IATA to provid	<del>de furt</del>	her details			
Flight Level Band:												Implement if p	ossible	e		
Potential City Pairs: DGAA, DNMM, HSSS OEJN, SBGR to OBBI, OMAA, OMDB, OTBE (Central and Eastern Arabian Peninsula to Sudan West Africa, South America)			DB, OTBD									Priority Routes				
						-										
Conclusions/Remarks Saves 58 miles and 3196 Kg of CO2											Last updated		ARN 2012	TF/5 F	bruary	



MID/RC-046	ATS Route Na New Route	ame:	Entry-Exit: SALUN-EGNO	Cross I	egional Reference		Users Priority		Originator of Proposal Date of Proposal	IATA ARN TF/2	
Route Description			Concerned	Expected Implemen- tation date		mplementation Status	AN	P Status	Action Taken /	Required	Deadline for each Action
			Bahrain, Egypt, Saudi Arabia						IATA to provide fu		
Flight Level Ba	Flight Level Band:								Implement if possib Priority Routes	le	
Potential City Pairs: DAAG, DTTA, GMMN, HECA, LIRF, LFMN tt OBBI, OMAA, OMDB, OTBD (Eastern Arabiar Peninsula to Egypt, Maghreb and Mediterranear areas)									rhonty Kottes		
							_				
Conclusions/Re	emarks	Saves 275 miles ar	d 8267 kg of CO2	e per flight	•		•		Last updated	ARN 7 2012	F/5 February

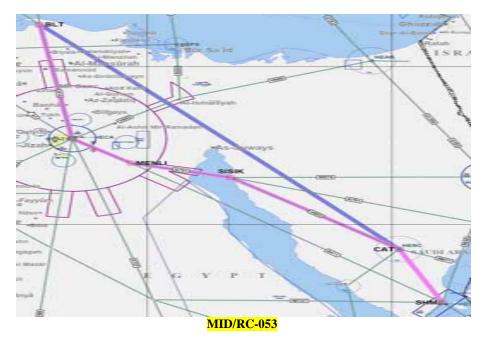


MID/RC-047	ATS Route N	lame:		Entry-Exit:		Inter-R	egional eference			Users		Originator of Proposal	IATA	
1411D/RC-047	New Route	•		HIL-NANVO			cicicic	herence		Priority		Date of Proposal	ARN TF/2	
Route Description				States Concerned	Expected Implemen- In tation date		mplementation Sta	tus	ANI	<b>'</b> Status	Action Taken / Required		Deadline for each Action	
				Egypt Saudi Arabia								IATA to provide fur		
Flight Level Band:												Implement if possib Priority Routes	le	
Potential City Pairs: DAAG, DTTA, GMMN, HECA, HLLT, to OBB OERK, OMAA, OMDB, OTBD (Central an Eastern Arabian Peninsula to Egypt, Libya an Maghreb area)			Central and											
Conclusions/Remarks Saves 73 miles and 3900 Kg of CO2									•		Last updated	ARN 2012	FF/5 February	

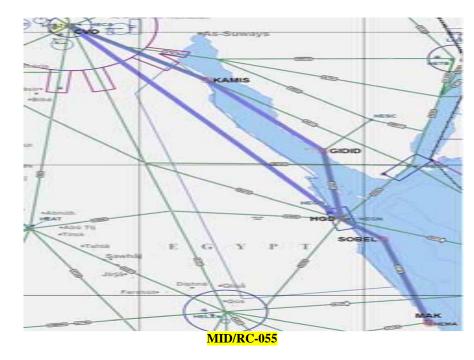


4C-11	
-------	--

MID/RC-053 Ex RC-	ATS Route I	Name:		Entry-Exit:		Inter-R	egional eference			Users		Originator Proposal	of	IATA		
513 KC	New Route			BALTIM-SHM	BALTIM-SHM		ererence			Priority		Date of Prope	osal	ARN TF/2		
	Route Description New Route BALTIM to SHM			States Concerned		ected lemen- n date	I	mplementation §	itatus	ANI	<b>?</b> Status	Action Ta	ken /	Required	Deadline each Act	
	E											Possible Night	rules	by IAC		
Flight Level Ba	nd: Upper											Also to be pro	vided	to RMA		
Potential City P												Penetrates mil	itary a	irspace.		
Arabian Peninsu	Arabian Peninsula to Europe											No change				
Conclusions/Re	Conclusions/Remarks Saves 24 miles / Flt										Last updated		ARN 2012	TF/5 Febr	oruary	



MID/RC-055	ATS Route New Route	Name:		Entry-Exit: HEMA-CVO		Inter-Ro Cross R if any	egional eference			Users Priority		Originator Proposal Date of Propos	of al	IATA ARN TF/2	
	Route Descrip MAK-CV(			States Concerned	Impl	Expected Implemen- I tation date		mplementation Status		ANP Status		Action Taken / Required		Required	Deadline for each Action
CVO HGD GIBAL	HGD			Egypt Saudi Arabia								L315 to be dis Arabia for To be followed	direct	d with Saudi tion of route	
Flight Level Ba	and: Upper		I									Both States ag		to study the ding final	
	Potential City Pairs: Northwestern Red Sea to HECA and Europe											agreement			
									-						
Conclusions/Re	emarks	Saves	9 miles							•		Last updated		ARN T 2012	F/5 February



#### ARN TF/5-REPORT APPENDIX 4C

MID/RC-056	ATS Route	Name:		Entry-Exit:		Inter-Re Cross R				Users		Originator Proposal	of	IATA	
WID/RC-050	New Route			HEMA-SHM	if any		ererence			Priority		Date of Prop	osal	ARN TF/2	
]	Route Description HEMA-SHM			States Concerned	Impl	Expected Implemen- tation date		mplementatio	on Status	AN	ANP Status		Action Taken / Required		Deadline for each Action
				Egypt								IATA to prov	ide fur	ther details	
Flight Level Ba	Flight Level Band: Upper													await further	
	Potential City Pairs: HESH, Eastern Mediterranean, Europe to Weste		e to Western									discussic	ns froi	п Едург.	
								_							
Conclusions/Re	Conclusions/Remarks Saves 17 miles									1		Last updated	l	ARN ⁷ 2012	F/5 February



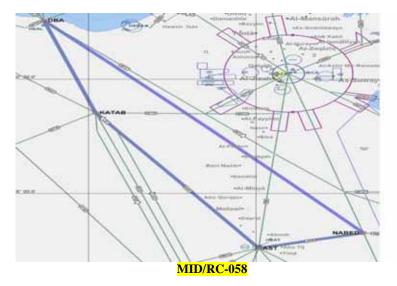
4C-15	
-------	--

MID/RC-057	ATS Route	Name:		Entry-Exit:	(DU	Inter-Re	egional eference			Users		Originator of Proposal	ΙΑΤΑ	
WID/RC-057	New Route			KHATAB-SEMRU		if any				Priority		Date of Proposal	ARN TF/2	
	Route Description KATAB-SEMRU			States Concerned	Expected Implemen- tation date		I	mplementation Sta	tus	ANP Status		Action Taken / Required		Deadline for each Action
				Egypt								IATA to provide f	urther details	
Flight Level Ba	nd: Upper											Ongoing tourist fli	<mark>ghts</mark>	
Potential City Pairs: Arabian Peninsula to North Africa														
Conclusions/Re	Conclusions/Remarks Saves 11 Miles								]		Last updated	ARN 7 2012	FF/5 February	



4C-16

MID/RC-058	ATS Route N	Name:		Entry-Exit:		Inter-R	egional eference			Users		Originator Proposal	of	IATA		
MID/RC-050	New Route			NADEB-DBA		if any				Priority		Date of Prope	osal	ARN TF/2		
]	Route Description NABED-DBA			States Concerned	Expected Implemen- tation date		I	mplementation	Status	ANP Status		Action Taken / Required		-	adline for ch Action	
				Egypt								IATA to provi	de fur	ther details		
Flight Level Ba	Flight Level Band: Upper											Not feasible				
Potential City Pairs: Arabian Peninsula to Europe								-		Implement if p Priority Route		e				
Conclusions/Remarks Saves 47 Miles											Last updated		ARN 2012	TF/5	February	

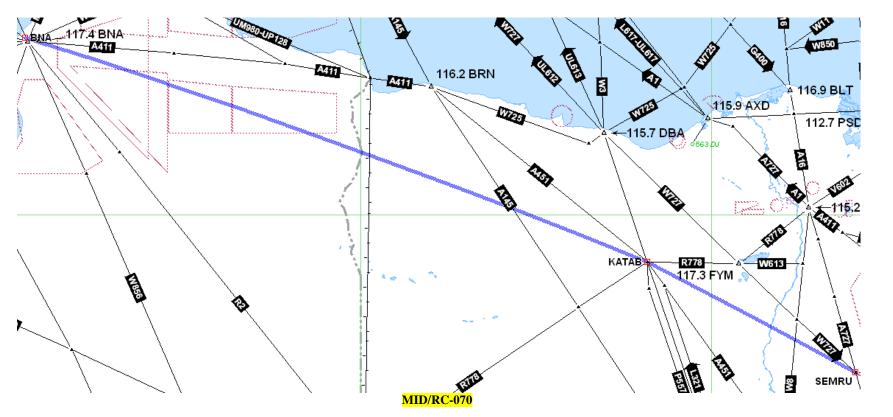


4C-17	
-------	--

MID/RC-059	ATS Route N	Name:		Entry-Exit:		Inter-R	egional eference			Users		Originator of Proposal	IATA	
WIID/RC-039	New Route			PASOS-NWB		if any				Priority		Date of Proposal	ARN TF/2	
	Route Description			States Concerned	Expected Implemen- tation date		I	mplementation Sta	tus	ANP Status		Action Taken / Required		Deadline for each Action
			Egypt								IATA to provide f	uther details		
Flight Level Ba	nd: Upper											Implement if possi	ble	
	Potential City Pairs: Arabian Peninsula to Egypt											Priority Routes		
Conclusions/Re	Conclusions/Remarks Saves 7 Miles											Last updated	ARN 7 2012	F/5 February



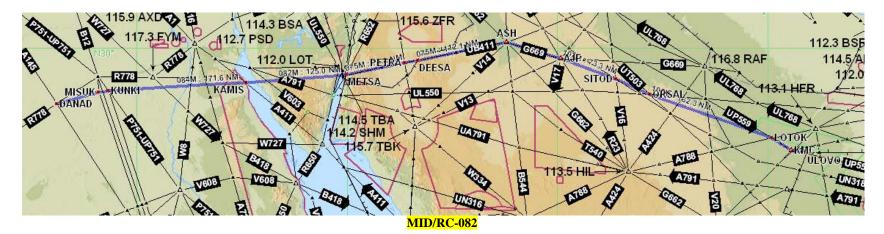
MID/RC-070	ATS Route	Name:		Entry-Exit: BNA-KATAB	_	Inter-R	egional Reference			Users	High	Originator of Proposal	IATA	
MID/RC-070	New Route			SEMRU		if any				Priority	Ingn	Date of Proposal	ARN TF/1	
	Route Description		States Concerned	Impl	Expected Implemen- I tation date		mplementation Statu	s	ANP Status		Action Taken/Required		Deadline for each Action	
KATAB (N29 2	BNA (N32 07.5 E020 15.2) – KATAB (N29 25.0 E029 05.1) – SEMRU (N28 02.0 E032 03.1)					New ATS	S route.				Differed for the futu Implement if possib			
Flight Level Ba	nd: FL290 – I	FL410										Priority Routes		
Potential City I	Potential City Pairs: CMN/ALG/TUN/TIP-DOH		N/TIP-DOH											
Conclusions/Re	Conclusions/Remarks This AWY would save considerable track miles Libya FIR to Egypt FIR					niles BNA	– KATAB	– SEMRU				Last updated	ARN 1 2012	F/5 February



	ATS Route N	Name:	Entry-Exit: DAYFA – DAI		-Regional			Users	· · · ·	Originator of Proposal	IATA iFLEX	Proposal
MID/RC-081	New Route U	Q596	<ul> <li>– IMRAD then</li> <li>A145 Eastbourn</li> <li>Only</li> </ul>					Priority	High	Date of Proposal	17 May 2011	
	Route Descrip	tion	States Concerned	Expected Implemen tation date		Implementation Status	S	ANI	P Status	Action Taken/	Required	Deadline for each Action
SEB											be discussed	
HORUJ			Libya							with Lib		
DAYFA			Egypt							- Needs to with Egypt	be discussed	TBD
DANAD			Egypt								be discussed	
IMRAD			Saudi Arabia							with Jeddah FIR if A		
ALMAL								Not in	n the ANP	bidirectional East of	LXR	
Flight Level Ba	ind:									Implement if possib	le	
Potential City Tripoli FIR, Cai		FIR, Algiers FIR, FIR								Priority Routes		
Conclusions/Re	emarks	Proposals agreed	to by some State	during the i	LEX workst	nop Dubai		<u>I</u>		Last updated	ARN T 2012	F/5 February



MID/RC-082	ATS Route N		Entry-Exit: DANAD - ME		Inter-Regional Cross Reference			Users	High	Originator of Proposal	IATA iFLEX	Proposal
	New Route U	Q597 Eastbound	– ASH – ULO		f any			Priority	6	Date of Proposal	17 May 2011	
]	Route Descript	ion	States Concerned	Expected Implemen- tation date		Implementation Status		ANP Status		Action Taken/Required		Deadline for each Action
METSA 29 27 0 ASH	OVO 27 48 30N 045 54 20E Saudi A							Not in	the ANP	- connectin proposed route MII UP559. Implement if possib Priority Routes	D/RC-081 via	TBD
Flight Level Ba	nd:											
Potential City Tripoli FIR, Cai			R,									
Conclusions/Re	emarks	Proposals agree	ed to by some State	during th	ne iFLEX worksl	10p Dubai				Last updated	ARN T 2012	F/5 February



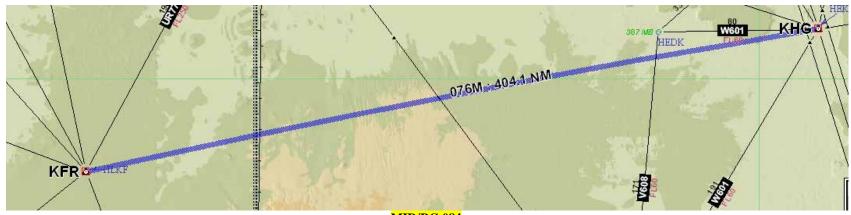
4C-23
-------

MID/RC-083	ATS Route Name:		Entry-Exit: DITAR – NAB		Inter-Regi Cross Refe				Users	High	Originator of Proposal	IATA iFLEX	C Proposal
	New Route UQ598 Westbound		– PASAM – HI ANTER - KUT	if any					Priority		Date of Proposal	17 May 2011	
Route Description			States Concerned	Expected Implemen- In tation date		mplementation Status		ANP Status		Action Taken/Required		Deadline for each Action	
DITAR 26 59 0	3N 025 00 00E											be discussed	
AST		Libya									with Egypt if A145 bidirectional East of		
NABED 27 18 (	01 032 17 06E	<b>F</b>									Implement if possib		TBD
PASAM 27 30 4	45N 034 55 42E	Egypt									Priority Routes		
HIL		Saudi									r Hority Routes		
Via A791		Arabia											
KUTEM													
Flight Level Ba	nd:												
Potential City I	Pairs:												
									1				
Conclusions/Re	Conclusions/Remarks								1		Last updated	ARN 7 2012	TF/5 February



4C-24

MID/RC-084	ATS Route Name:		Entry-Exit:		Inter-Regional Cross Reference if any				Users	High	Originator Proposal	of	IATA iFLEX	Proposal
MID/RC-004	New Route UQ599; Bidirectional		KFR - KHG						Priority	8	Date of Pro	oposal	17 May 2011	
	Route Description			Imple	xpected nplemen- I ation date		mplementation Stat	15	ANP Status		Action Taken/Required		Deadline for each Action	
KFR KHG		Libya Egypt									with Libya ] with Egypt	Needs to I	be discussed be discussed	TBD
Flight Level Ba	nd:										Implement	-	e	
Potential City I	Pairs:										Priority Ro	utes		
									-					
Conclusions/Re	emarks	•								Last updat	ed	ARN T 2012	F/5 February	



**MID/RC-084** 

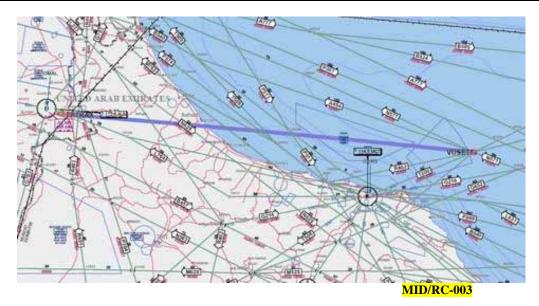
4C-25
-------

MID/RC-001 (Option 1)	ATS Route N New AWY be		Entry-Exit: SALWA-COPI	DI.	Inter-R	egional eference		Users	High		ginator of posal	IATA	
(Option 1) MID/RC-051	SALWA-COF A415	PI	DOH - KIA	21	if any	ererence		Priority	<b>URGENT</b>	Date	e of Proposal	ARN TF/1	
	Route Description			Expected Implemen- tation date		Implementation	Implementation Status AN		• Status		Action Taken /	Required	Deadline for each Action
SALWA (N25 I COPPI (N27 50 This route is pro- northbound to ca from Doha inter "A791/G663", r N26 27.1 E049 to transit for No destinations <b>Flight Level Ba</b> <b>Potential City I</b> DOH to Western DOH to BEY, E DOH to North-4 OMAA to GMN	.6 E047 44.0) oposed as a one vater for departur section point on maybe "TANDA 18.2" to allow tr rth African and: FL200 – Fl Pairs: n Europe/USA DAM, AMM Africa	vay e affic	Qatar Bahrain Saudi Arabia			New ATS route.				- - - - <u>Still</u> 001	Bahrain has no Qatar has no ob however will ha restriction of 15 UTC subject to with Saudi Arabia net the proposal fur advise by 31 Oc Still under cons Saudi Arabia Pending Saudi A response Secret make Amendmu Re submitted by with indication priority need. Saudi Arabia to timed route opti timed out route Whatever is rela- ald be combined on	investigate a on. Same as RC	As soon as practical
Conclusions/Re	Conclusions/Remarks Saving 88 miles, 10 daily flts, 34650 Kg of CO2 Daily Last updated ARN TP								F/5 February				

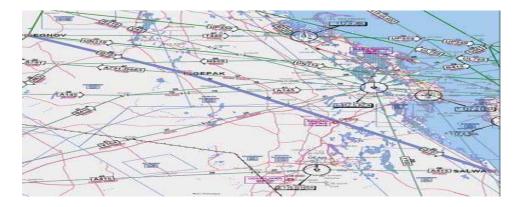
#### ARN TF/5-REPORT APPENDIX 4C



MID/RC-003	ATS Route Name:		Entry-Exit:		Inter-Re	egional eference			Users	High	Originator of Proposal	IATA	
	New AWY – VUSET to ITRAX		Muscat FIR	VUSET - TIKAA		cicicice		Pri	Priority	8	Date of Proposal	ARN TF/1	
Route Description			States Concerned	Imple	Expected Implemen- In tation date		mplementation Statu	s	ANP Status		Action Taken/Required		Deadline for each Action
VUSET – "N23 55.7 E059 08.2 ITRAX – N24 12.8 E055 47.8			Oman			New ATS	route.				Not acceptable due t traffic crossings and Danger Areas climb	goes through	TBD
Flight Level Ba	<b>nd:</b> FL290 – FL410								Not in	the ANP	descending traffic. T		
	Potential City Pairs: SGN, PEK, HKG, PVG, DEL, AMD, KHI, KIX, DAC, KTM - Doha								-		Differed for the future Similar to RC-013		
					-						No change		
Conclusions/Re	onclusions/Remarks										Last updated	ARN TF 2012	7/5 – February

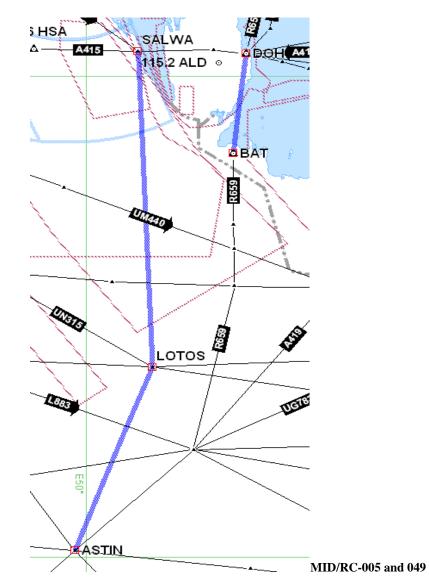


MID/RC-004	ATS Route Nam	ne:	Entry-Exit:	***		egional Reference		Users	High	Originator of Proposal	IATA	
	<del>Q707-<mark>L681</mark></del>		EGNOV – SALWA		if any		]	Priority	Ingn	Date of Proposal	ARN TF/1	
	Route Description	1	States Concerned		ected lemen- n date	I	mplementation Status	ANF	<b>?</b> Status	Action Taken/	Required	Deadline for each Action
	EGNOV (N27 03.0 E047 47.2) – SALWA (N25 15.6 E050.30.8)		Qatar Bahrain Saudi Arabia			Suggested Weekend To chang one-way EGNOV North Aft two way from poi	hours to be extended. d from 1430 – 0300UTC s H24 e current AWY Q707 from to two way between points – SALWA rica traffic – If Q707 is made a AWY, then traffic can route nt "GEPAK (N26 33.0 E048 AWY A791/G663			<ul> <li>Bahrain has no 6</li> <li>Qatar can exter 15:00 to 03:00 provided Saudi concurs.</li> <li>Saudi Arabia w proposal and re Secretariat by 3 2008.</li> </ul>	id hours from UTC Arabia ill study the vert to the	<del>31 Oct. 2008</del>
Flight Level Ba Potential City I	and: GND - UNL Pairs:									Still under considere Arabia	ation by Saudi	
Doha – Western Europe/USA – Doha Doha – BEY, DAM, AMM – Doha Doha – North Africa dest Doha									MID Office to comm priority need to Sau Implemented as a tir	di Arabia med-out route		
Conclusions/Re	emarks U		tion necessary d	ue rap	idly build	ling conges	tion in the Bahrain			Keep as is in the rou Last updated		F/5 February



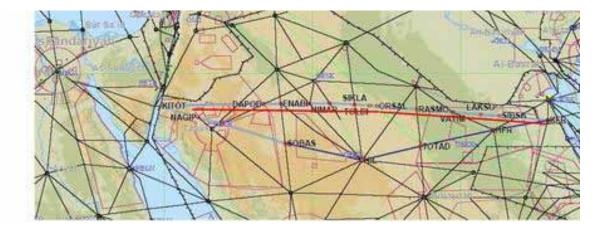
MID/RC-005 Op 2	ATS Route Name: New AWY between		Entry-Exit: SALWA-LOTU	IS-	Inter-R			Users		Originator of Proposal	IATA	
MID/RC-049	SALWA-LOTUS-AS <mark>SALWA KIPOM AS</mark> DOH BAT		ASTIN DOH-BAT	DOH-BAT		eference		Priority	High	Date of Proposal	ARN TF/1	
R	Route Description				ected emen- n date	I	mplementation Status	ANI	P Status	Action Taken/	Required	Deadline for each Action
way. Alternatively, IA' Salwa – (intersec – Y100 – LOTUS PURDA (N21 08 join with A419 SALWA (N25 15 LOTUS (N22 00) ASTIN (N20 04.) <b>Route D</b> A direct segment	3.1 E051 03.5) – 5.6 E050.30.8) 1.0 E050 39.2) 2 E049 53.3) Description t on an airway that d for by a dog leg		Bahrain Saudi Arabia Bahrain, Qatar, United Arab Emirates			New ATS	S route.			<ul> <li>Proposal replace following agree Doha to Bundu V997 to R659.</li> <li>Bahrain will iss for activation o AIRAC date.</li> <li>MID Regional circulate Amen Proposal to cha Regional route.</li> <li>Amendment to circulated after updates from S</li> </ul>	d option: than via ue NOTAM n the next Office to dment nge V997 to be -re- collection of	Immediate <del>Sept. 2008</del> June. 2009
Flight Level Band: FL180 – FL410									- An alternate R	VAV1 route		
Potential City Pa South Africa - Do	<b>'airs</b> : Doha – Eastern/ oha							_		was proposed w UAE response. 1.	vaiting for	

				<ul> <li>Provided R659 impletween DOH and RC049</li> <li>No change</li> <li>MID RC-00 RC-049, UAE requidue military issue to this route</li> <li>Doha will be addred during the next mereference removing route. Keep as is unis present for discut</li> <li>Expected implet September 2011 a out route</li> <li>Ref RC 005</li> </ul>	BAT and 5 / MID sested that to remove essed setting g this ntil Qatar sistions ementation
Conclusions/Remarks	Replacement proposal implementation.	l (Doha-Bundu-U997-R659).	Last updated	ARN TF/5 February 2012	

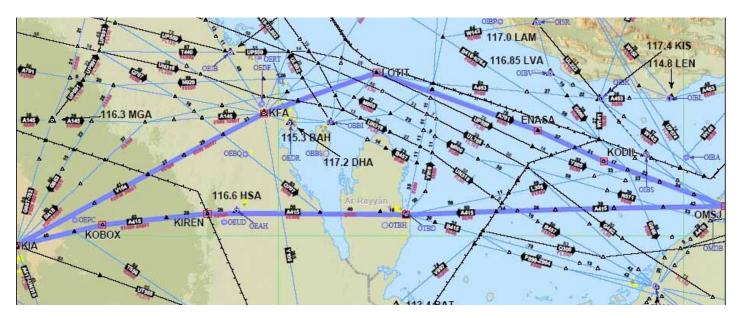


4C-33
-------

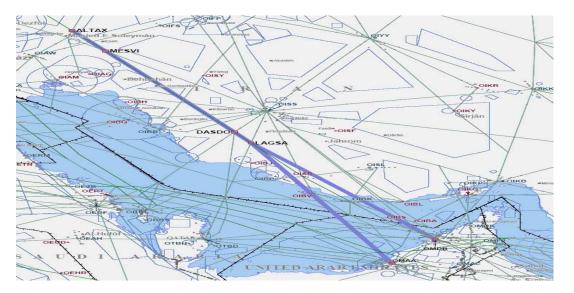
MID/RC- 008- <mark>011</mark>	ATS Route N	lame:	Entry-Exit: Parallel AWY		nter-Regional Cross Reference		Users	High	Originator of Proposal	IATA	
000-011	New Parallel	AWY to UL 550	UL550					Ingn	Date of Proposal	ARN TF/1	
]	Route Descrip	tion	States Concerned	Expecte Implem tation d	nen-	Implementation Status	ANI	P Status	Action Taken/	Required	Deadline for each Action
New Parallel AV	WY to UL 550		Egypt Saudi Arabia <del>Iraq</del> Kuwait		New A	TS route.			- Egypt will continue to study how to address issue of east bound traffic for reduced traffic (Egypt Air and		
Flight Level Ba	nd: 6000ft TO	FL 250							Kuwait Airway	vs).	Update will be provided
Potential City Pairs: Cairo-Kuwait								<ul> <li>The Segment in is used bidirect already.</li> </ul>		October 2009 March 2010	
									<ul> <li>Egypt will revi feasibility on co the ACC sector process underw</li> </ul>	ompleting of ization	
									<ul> <li>Egypt restudy to provide an u ARN TF</li> </ul>		
								<ul> <li>No change</li> <li>Can be deleted</li> <li>ATS Route A7</li> <li>implemented as</li> <li>directional.</li> </ul>	91 is		
Conclusions/Remarks Egypt highlighted similar proposal has been studied before and not found accept due to military restrictions and uncoordinated flights over the red sea area. The similar routing as MID/RC-011									Last updated	ARN 7 2012	F/5 February



MID/RC-010					Inter-Regional Cross Reference				Users	High	Originator of Proposal IATA			
	<del>V164</del> N687				if any				Priority	Ingn	Date of	e of Proposal ARN TF/1		
	Route Description				ected emen- n date	I	mplementation Statu	IS	ANI	<b>?</b> Status	Ac	ction Taken/R	lequired	Deadline for each Action
V164-N687 King Khaled (KIA). King Fahd (KFA) change from uni- direction eastbound to bi-direction.			Bahrain Saudi Arabia								FL	ahrain has no c 250 and below A and KFA.		
Potential City I	Flight Level Band: Potential City Pairs: For traffic from airports in Gulf region to Riyadh and beyond								-		of per	thrain will stue traffic volum rmitted to des 250.	e that can be	
Guif region to Riyadh and beyond					-						- Dir - Sar - Tir	ot feasible at th ffered for the Judi Arabia ago med route o change	future.	
Conclusions/Re	Conclusions/Remarks			1							Last up	<u> </u>	<mark>ARN TI</mark> 2012	7/5 – February



MID/RC-014	ATS Route Name: New Route		UAE to Iran and		Inter-Regional Cross Reference if any				Users Priority	High	Originator of Proposal	IATA	
											Date of Proposal ARN TF/1		
]	Route Description		States Concerned	Imple	Expected Implemen- I tation date		mplementation Statu	s	ANP Status		Action Taken/I	Required	Deadline for each Action
New, bi-directional route segments			Iran UAE								<ul> <li>Under consider and UAE.</li> </ul>	ation by Iran	TBD
Flight Level Band: Upper Airspace													
	Pairs: UAE to Iran and	d beyond									States have no plan	to implement.	
(unlimited)				╡ └──					-		- Differed for the	future.	
					_				-		<ul> <li>Discussion goir</li> </ul>		
											<ul> <li>UAE requested the route due to</li> </ul>		
											complexity that		
											created. Iran sh	are UAE in	
											this comment to route	remove the	
Conclusions/Re	marks									Last updated	ARN TF 2012	7/5 – February	



MID/RC-015	ID/RC-015 ATS Route Name: New airways between Sharjah		Entry-Exit:		Inter-Re Cross Re				Users	High	Originator of Proposal	IATA	
	and Tehran	n Sharjah	LOPEG- DEBE	70	if any	ererence				Tiigii	Date of Proposal ARN TF/1		
]	Route Description		States Concerned	Expected Implemen- I tation date		mplementation S	tatus	ANI	P Status	Action Taken/	Required	Deadline for each Action	
created half way and PAPAR i.e. point. The old SIDs the DEBES will be a difference that a traffic will proce instead of PAPA LOPEG-XXXX	A new waypoint XXXXX to be created half way between KUMUN and PAPAR i.e. 37 NMs from either point. The old SIDs through LOPEG and DEBES will be re-instated with the difference that alter either point, traffic will proceed to XXXXX instead of PAPAR, distance LOPEG-XXXXX 23 NMs and DEBES-XXXXX 40 NMs										<ul> <li>Already under , by Iran and UA</li> <li>States have no plan</li> <li>Differed for the futu</li> <li>UAE have no plan t and requested t route</li> </ul>	E. to implement. re. o implement_	TBD
Flight Level Ba	nd:												
Potential City Pairs: Sharjah-Tehran													
					-								
Conclusions/Re	emarks			<u> </u>						Last updated	ARN TF 2012	7/5 – February	



4C-39
-------

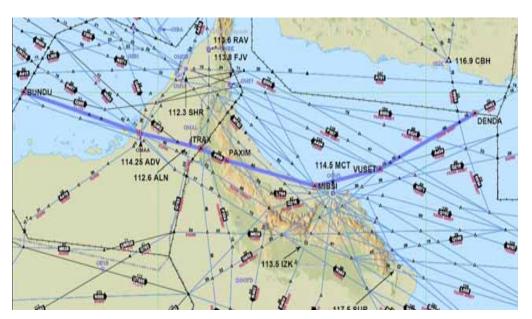
MID/RC-017	ATS Route Name:		Entry-Exit: Route from Jo	~ ~ ~				Users		Originator of Proposal		IATA	
New Route			or Syria to BE DAM-DAKWI KAD	1 via	via Cross Reference if any			Priority	High	Date of Propos	al	ARN TF/1	
	Route Description		States Concerned	Expector Implem tation d	men-	Iı	mplementation Status	ANI	? Status	Action Ta	ken/Re	equired	Deadline for each Action
Route from Jord via DAM-DAK	lan or Syria to BEY WE-KAD		Syria Beirut		N	New ATS	route.			- Syria will and provid	e upda	te after	TBD
Flight Level Ba	and:									- ICAO MII			
Potential City I	Pairs:									follow-up			30 Sept. 08
										No updates			June 2009
Conclusions/Re	Conclusions/Remarks									Last updated		ARN TI 2012	F/5– February



MID/RC-018	MID/RC-018 ATS Route Name: New Route				Cross Reference			Users Priority	High	Originator of Proposal IATA		
						]		Priority	8	Date of Proposal	ARN TF/1	
	Route Description		Expec Imple tation	emen- I		mplementation Status	5	ANP Status		Action Taken/Required		Deadline for each Action
Route from Jordan to CAI via DATOK <del>TBA-</del> W976		Jordan Egypt			New ATS	S route.				<ul> <li>Egypt will require to study and initiation in the study and initiatinterval and initiation in the study and initiatinterval and i</li></ul>	tiate proposal	TBD
Flight Level Ba	nd:									to Jordan to esta 5 to 7 NM Sout		
Potential City I	Pairs:									in order to facil routing to DAT		
			_	-				-		- State and Military issues		
										Pending discussion between Egypt and Jordan		
										Can be deleted prove – METSA be used a alternative route		
Conclusions/Re	Conclusions/Remarks									Last updated	<mark>ARN T</mark> 2012	F/5 February



MID/RC-019	ATS Route N R462	Jame:	Entry-Exit: DENDA-MIBS		Inter-Regional Cross Reference if any			Users Priority High		Originator of Proposal Date of Proposal	IATA ARN TF/1	
	Route Description			Expect Impler tation	men-	Implementation Status	8	ANF	? Status	Action Taken/I	Required	Deadline for each Action
Request permission to use this AWY for traffic with destination DOHA <del>DENBA</del> DENDA R462 MIBSI P899 BUNDU										<ul> <li>UAE has no ob Oman agrees.</li> <li>ICAO will send Oman.</li> </ul>		
Potential City I	P899 BUNDU         Flight Level Band: FL290 to FL410         Potential City Pairs: SGN, PEK, HKG, PVG, DEL, AMD, KHI, KIX, DAC, KTM-Doha							-		Not feasible due to c (safety reasons) Differed for the futu	U	
										UAE has no issues i agrees, but state exit point from Doha must be t MEKMA	ed that the UAE FIR to	
Conclusions/Re	emarks	Proposal to be sen	d to Oman for re	esponse						Last updated	ARN TF 2012	8/5 – February



4C-43

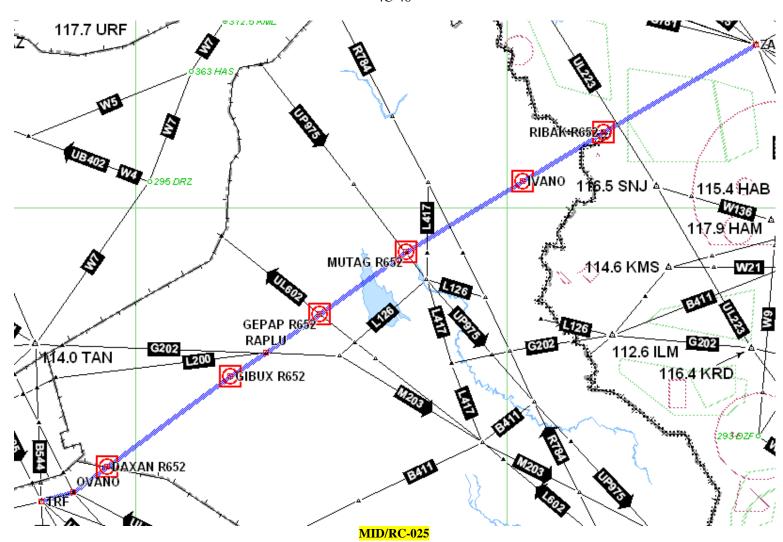
4C-44

MID/RC-020	MID/RC-020 ATS Route Name: Replacement of IATA Proposal:		Entry-Exit: TELEM-VAXI	Μ	Inter-R Cross R	egional Reference		Users	High	Originator of Proposal	IATA	
	(3) and (9).	IATATIOposais	and PRA-TELEM		if any			Priority	8	Date of Proposal	ARN TF/1	
	Route Description	n	States Concerned	Imp	ected lemen- on date	I	mplementation Status	ANI	P Status	Action Taken/	Required	Deadline for each Action
SODEB to/from hours availabilit	MINAR with 24 y;		Oman Pakistan							- SODEB to/from with 24 hours a		
thence MINAR Pratapgarh (PRA	to Ahmedabad or A)		Mumbai							- MINAR to Ahi Pratapgarh (PR	A).	<del>Update</del> <del>October</del>
Flight Level Ba	ind:									<ul> <li>To be relayed t APAC Regional</li> </ul>		<del>2009.</del> March 2010
Potential City I	Pairs:									Bangkok.		March 2010
										Under consider unidirectional of		Route
										<del>Also being coo</del> <del>APAC</del>	rdinated with	<del>expected</del> implementati on date
									<ul> <li>Route was not a India.</li> </ul>	supported by	Jun2010	
									- Differed for the	<mark>e future.</mark>		
Conclusions/Re	onclusions/Remarks Proposed by Pakis been removed from			TA O	riginal pro	oposals (3)	and (9) which have			Last updated	ARN TF/	<mark>4 May 2011</mark>



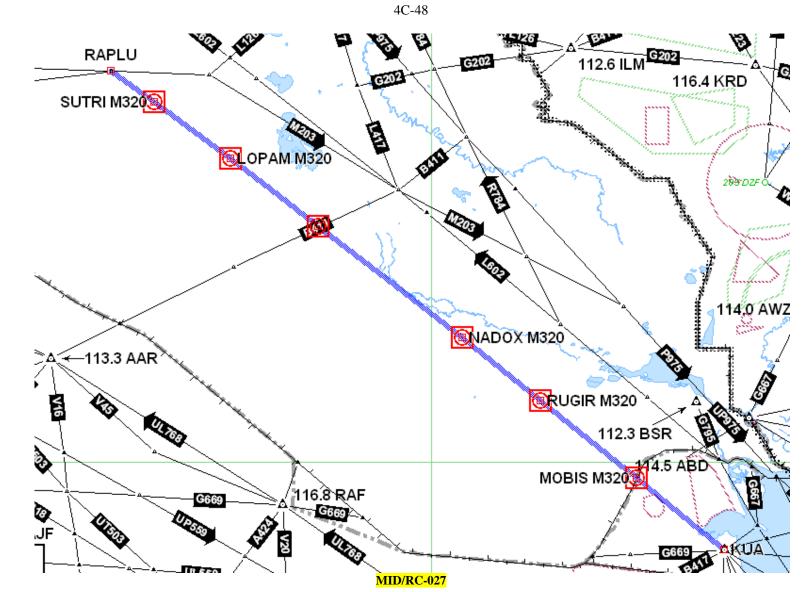
4C-45
-------

MID/RC-025	ATS Route Name: R652	Entry-Exit:					Users	URGENT	Originator of Proposal	Iraq	
WID/RC-025		METSA- ZAJ		if any			Priority	UKGENT	Date of Proposal RDGE/11 (O		ct 2009)
]	Route Description	States Concerned	Impl	ected lemen- n date	Implementation Stat	us	ANP Status		Action Taken /	Deadline for each Action	
QATRANEH ( PARAM (3123. GURAIT (GRY TURAIF (TRF, OVANO (3148. DAXAN (32051 GIBUX (33071: RAPLU (33230) GEPAP (33490) MUTAG (34300) IVANO (35172) RIBAK (354924) ZANJAN (ZAJ Flight Level Ba	Route Description           METSA (2927.1N 03459.0E)           QATRANEH (QTR)           PARAM (3123.3N 3706.7E)           GURAIT (GRY)           TURAIF (TRF)           OVANO (3148.0N 03909.8E)           DAXAN (320512N 0393719E)           GIBUX (33001SN 0411625E)           RAPLU (332300N 0414530E)           GEPAP (334906N 0422 51E)           MUTAG (343003N 0433834E)           IVANO (351724N 0451235E)           RIBAK (354926N 0461808E)           ZANJAN (ZAJ)           Flight Level Band: FL200-FL410           Potential City Pairs:				<ol> <li>New Route in the E (FIR) Connecting v Zanjan (ZAJ).</li> <li>To Coordinate with Arabia to connect A from OVANO to D acceptable.</li> <li>Coordinate with Ira connect RIBAK to acceptable</li> <li>New Route in Bagh (FIR).</li> </ol>	vith Saudi Airway AXAN if n to ZAJ if	Implemente Arabia co	ATS.1 Table. d in Saudi ntinuation of ghdad FIR and	Points highlighted in new. <u>ATS route R6</u> <u>proximity wit</u> <del>UR785 that</del> <del>UR785 that</del> <del>UR785 that</del> <del>To be referred</del> <del>TF/3 meeting</del> <del>discussions</del> - Not supported Saudi Arabia - Refer the ATS MID/RMA studies and an passing freque - ATS route R6: proximity with UR785 and F1 that would conflict. - Saudi Arabia a not approve for of Route in In removal waiting back - Proposal was Jordan to use departure R Amman into Ira; - further discuss required betw Iraq and Sau finalize the pro	by Jordan 52 is in close h ATS route would cause to the ARN for further by Jordan and S route to the for further halysis of the ney. 52 is in close h ATS route tallysis of the ney. 52 is in close h ATS route tallysis of the ney. 52 is in close h ATS route tallysis of the ney. 53 is in close h ATS route tallysis of the ney. 54 is in close h ATS route tallysis of the ney. 54 is in close h ATS route tallysis of the ney. 55 is in close h ATS route tallysis of the ney. 56 is in close h ATS route tallysis of the ney. 57 is in close h ATS route tallysis of the h Cose h ATS route tallysis of the h Cose h ATS route tallysis tally a tally tally a tally a tally tally a tally tally a tally tally a tally a tally a tally tally a tall	TBD March 2010
Conclusions/Re	marks								Last updated	ARN T 2012	F/5 February



4C-47
-------

MID/RC-027	ATS Route Name: M320	Entry-Exit:		Regional Reference		Users	URGENT	Originator of Proposal	Iraq	
		KUA-RAPLU	if any			Priority		Date of Proposal	RDGE/11 (Oct 2009)	
]	Route Description	Concerned	Expected Implemen- tation date	1	mplementation Status	ANF	<b>?</b> Status	Action Taken / Required		Deadline for each Action
KUA MOBIS 295109 RUGIR 303219 NADOX 31050 ELODI 320256 LOPAM 32375 SUTRI 3307011 RAPLU 332300 Flight Level Ba	N 0460618E 5N 0451851E N 0435126E 7N 0425806E N 0421128E	Kuwait Iraq		from 2. Poir new 3. Coo of co	sting RNAV designator M320 n Kuwait proposed). Its highlighted in yellow are rdination with Kuwait required ontinuation of route within their pace.		ATS.1 Table wait FIR	<del>3) To be dit</del> <del>further ir</del> <del>TF/4 me</del>	t present. rther studies. <del>cussed</del> the ARN	March 2010
Potential City I	Potential City Pairs:									
Conclusions/Re	emarks							Last updated	ARN TF/	4 May 2011



MID/RC-028	ATS Route Name: J222	Entry-Exit:		legional Reference		Users	URGENT	Originator of Proposal	Iraq	
WID/RC-028	A 15 Route Maine, 5222	BASEM-KMS	if any	xererence		Priority	UKGEI	Date of Proposal RDGE/1		ct 2009)
	Route Description	Concerned	Expected Implemen- tation date	]	Implementation Status	ANI	<b>?</b> Status	Action Taken /	Action Taken / Required Dea each	
BASEM 33331 ALSOX 333700 GEPAP 334900 SOKAD 34105 KMS KERMA	DN 0392000N 5N 0422851E 1N 0453226E	Syria Iraq Iran		2. Co rec rot	ints highlighted in yellow are <i>w</i> . ordination with Syria and Iran uired for the continuation of tte within their airspace. w route in the Baghdad (FIR)			Points highlighted in new. - Not supported - ATS route J22 proximity wit	TBD	
Flight Level Ba Potential City J	nd: FL200-FL410 Pairs:					Not available in ATS.1 Table. Implemented in Syria Change of Route Designator Required To be referred to the TF/3 meeting for the discussions		to reconsider rS route with nge the route d to the ARN g for further		
Conclusions/Re	emarks								review the will inform ARN TF/	3 March 2010

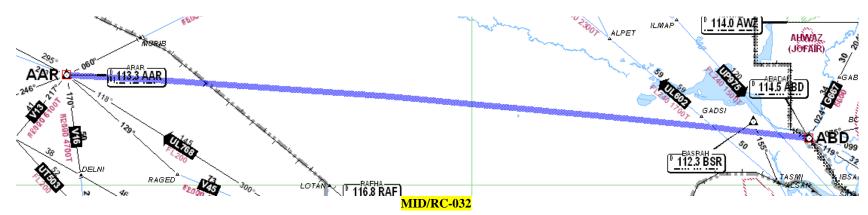


MID/RC-029	ATS Route Name: W8	Entry-Exit:		Cross Reference		Users	URGENT	Originator of Proposal	Iraq	
111D/RC-029	ATS Route Maile. Wo	GITNU-HAB	if any	erer ence	Pri			Date of Proposal	of Proposal RDGE/11 (Oct	
]	Route Description	States Concerned	Expected Implemen- tation date	I	mplementation Status	ANI	? Status	Action Taken /	Required	Deadline for each Action
TUBEN         3517           UMESA         3517           OTALO         3517           IVANO         3517	24N 0411553E 24N 0425434E 41N 0434307E 00N 0441900E 24N 0451235E 24N 0460921E	Syria Iraq Iran		<ul> <li>RNA P rec</li> <li>2. Point new.</li> <li>3. Coor requi</li> </ul>	ge route designator to regional V route designator ( <b>L</b> , <b>M</b> , <b>N or</b> <b>juested</b> ). s highlighted in yellow are dination with Syria and Iran red for the continuation of within their airspace.			Points highlighted in new. <u>Syria to disc</u> <del>with Military</del> <u>To be referred</u> <del>TF/3 meeting</del>	cuss proposal	TBD
SNJ Flight Level Ba Potential City I	nd: FL200-FL410 Pairs:				route in the Baghdad (FIR)			discussions - Syria requeste time to exami proposal for tl establishment route.	ne the ne	
Conclusions/Re	marks							Last updated	ARN TF/	3 March 2010



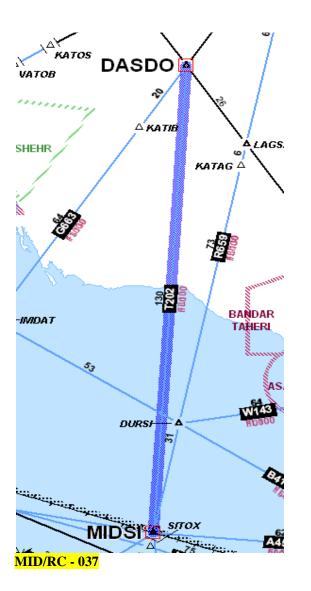
MID/RC-032 A	ATS Route Name	· C.665	Entry-Exit:	Inter-R Cross F	egional Reference			Users	URGENT	Originator of Proposal	Iran	
		. 0005	ABD/AAR	if any	lei ei ei ei ee			Priority		Date of Proposal	RDGE/11 (O	ct 2009)
Rou	oute Description		States Concerned	Expected Implemen- tation date	men- Implementation Status ANP Status Action Taken / Required		Required	Deadline for each Action				
ABADAN (ABD) ARAR (AAR)			Iran Iraq Saudi Arabia	No implementa tion date yet.	1) 2) 3)	Iraq to establis boundary point at . Baghdad FIR bound Iran and Iraq agree east/west routes v implemented implementation of and military approva Coordination Betw and Saudi Arabia Re	feddah & ary. d that all yould be after RVSM al. een Iraq	Panjgu New Rout	n ATS.1 Table r-Abadan e in Baghdad	Points highlighted new. To be referred to th meeting for further of MID RMA advised that the proposals su Iraq require assessm to ensure the passing are within the specif	the ARN TF/3 liscussions the meeting bmitted by ent by RMA g frequencies	TBD
Flight Level Band	I: FL240-FL460	·						F	IR	estimate of expected volume would be re-	traffic	
Potential City Pair	rs:									conduct the assessm frequencies. Iran Propsoed to i route but Iraq was r discussion	ent of passing mplement the	
Conclusions/Rema	arks To f	further improve	he ATS network w	vithin Gulf Are	ea.					Last updated	ARN T 2012	F/5 February





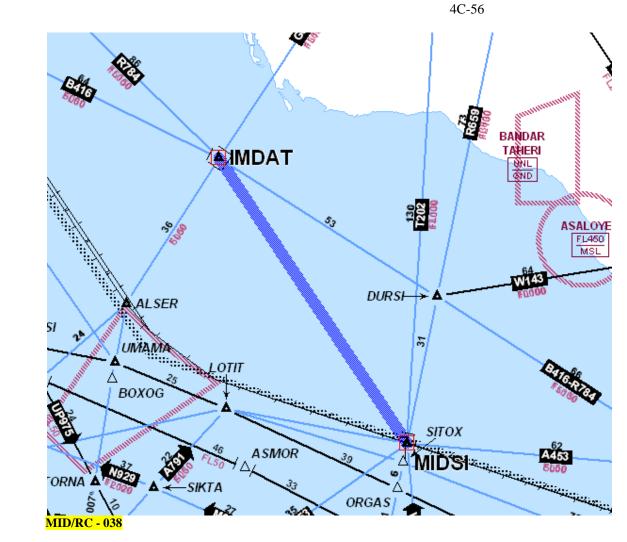
4C-53
-------

MID/RC-037	ATS Route Name:	Entry-Exit:	Inter-R Cross B	egional eference		Users	High	Originator of Proposal	Iran	
	New Route	MIDSI - DASDO	if any		I	Priority		Date of Proposal	15 March 201	0
	Route Description	States I	Expected mplemen- ation date	Implementation Status	5	ANP	Status	Action Taken/I	Action Taken/Required	
MIDSI 2641421 DASDO 285118		Bahrain Iran		MIDSI - DASDO				Bahrain informed the meeting that they had discussed (MIDSI- DASDO) with Iran. The high volume of traffic at MIDSI has		Published by Iran as T202
Flight Level Ba	and: FL 130 - UNL									
Potential City I	Pairs:					Iran is re RNAV Rou for the route	the ANP. questing an te Designator to be included e ANP	exceeded the passing limits. Bahrain prop boundary point to er directional routes. The to be the subject of the discussions between Iran. Another proposal pu Bahrain and submitt Discussion complete Iran to Request Rout and a proposal for an be circulated once da received by ICAO	eate uni- he proposal is he proposal is he ateral Bahrain and t in by ed to Iran Bahrain and e designators nendment to ata is	
Conclusions/Re	emarks				·			Last updated	ARN T 2012	F/5 February

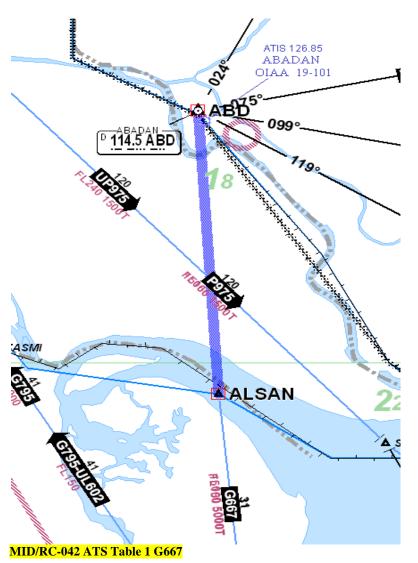


4C-55
-------

MID/RC-038	ATS Route Name: New Route	Entry-Exit: IMDAT - MIDSI	Inter-R Cross R if any	egional eference			Users Priority	High	Originator of Proposal Date of Proposal	Iran 15 March 201	1 <mark>0</mark>
]	Route Description	States Concerned	Expected Implemen- tation date	I	Implementation Status ANP Status Action Taken/Requ		Required	Deadline for each Action			
IMDAT 274100 MIDSI 2641421		Bahrain Iran			IMDAT - MIDSI Not implemented				Bahrain requested additional information regarding the connecton of (MIDSI – IMDAT) before considering the proposal.		(TBD)
Flight Level Ba	nd:						Not in	the ANP.			
Potential City I	Pairs:						RNAV Rou for the route	equesting an the Designator to be included the ANP	Another proposal put in by Bahrain and submitted to Iran		
Conclusions/Re	emarks								Last updated	ARN T 2012	F/5 February

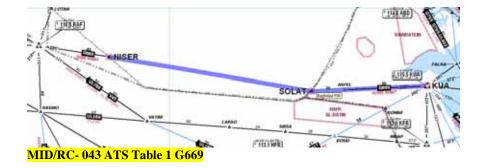


MID/RC-042 ATS Table 1	ATS Route Name:	Entry-Exit: Abadan-ALSA	Inter-R	egional Reference	Users	High	Originator of Proposal		
G667	G667	KUA	if any		Priorit	, ingi	Date of Proposal		
	Route Description	States Concerned	Expected Implemen- tation date	Implementation S	tatus A	NP Status	Action Taken/	Action Taken/Required	
PUTMA 3748.( NOSHAHR (N TEHRAN (TRI SAVEH (SAV) MIS AHWAZ (AWZ ABADAN ALSAN 295707 FALKA KUWAIT (KU, WAFRA (KFR, MAGALA (MC KING KHALI WADI AL DAV NEJRAN (NEJ SANA'A (SAA) PARIM 123142 (DJIBOUTI) I Flight Level Ba Potential City I	SR) N) 7N 0481456E A) ) GA) D (KIA) VASIR (WDR) ) 2.7N 0432712E DTI md:	Iran Iraq Kuwait		Abadan – Kuwait (		le in ATS.1 Table	Kuwait has objectio the segment. Propos segment ALSAN to well. Rational Pro ALSAN to release p and TASMI           — Not supported present           — Not supported tresent           — To be referred TF/3 meeting f discussions           - Not supported present.           - Not supported tresent.           - Not supported present.           - Not supported present.           - Not supported present.           - Not supported present.           - Image: Not supported present.           - Kuwait request time to e proposal.           Iraq requested to be suspended u radar coverrage RVSM has been	es closure of Kuwait as ximity of oints SIDAD -by Kuwait at rry out further to the ARN or further by Kuwait at ted additional xamine the hat Airway ntil adequate exists and	TBD March 2010
							implemented in (FIR). No change.	the Baghdad	
Conclusions/Re	emarks						Last updated	ARN TF/	<mark>4 May 201</mark> 1



MID/RC-043 ATS Table 1	ATS Route ]	Name: G669	Entry-Exit:		Regional Reference			Users	URGENT	Originator of Proposal		
G669	110 110 10000		NISER-SOLAT	if any				Priority		Date of Proposal		
R	Route Descrip	tion	States Concerned	Expected Implement tation date		Implementation Statu	IS	ANP Status		Action Taken /	Deadline for each Action	
SOLAT 2909421 *Note 3 (OK) KUWAIT (KUA SESRA 290803N NANPI 290457N BUSHEHR (BU	JOU (AJF) FHA (RAF) ER 2930.5N 04418.4E LAT 290942N 0463810E ote 3 (OK) WAIT (KUA) SRA 290803N 0485453E NPI 290457N 0493157E SHEHR (BUZ) FOB 2851.4N 05116.6E IRAZ (SYZ		Kuwait Iraq Saudi Arabia		Segment	Rafha – SOLAT - K nted	uwait not	Available in	n ATS.1 Table	Kuwait     advised     not       this     time     due       restrictions.	to military by Kuwait at try out further d to the ARN for further ted additional	TBD March 2010
Flight Level Bar Potential City P:										time to examine the proposal for the establishment of ATS route G669. Saudi Arabia has no objection to open the Route G669) as proposed by Iraq as the segment in Jeddah FIR is already implemented. No change		
Conclusions/Ren	marks	To further improve	the ATS network v	vithin Gulf A	rea.					Last updated	ARN TF/	4 May 2011

1

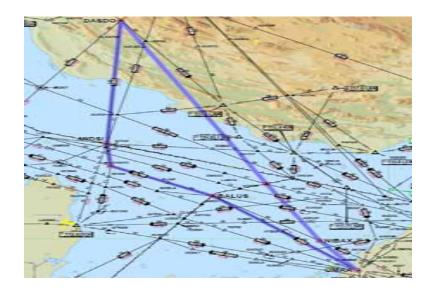


4C-61
-------

MID/RC-048	ATS Route	Name:		Entry-Exit:		Inter-R	egional Reference			Users		Originator of Proposal	IATA	ł		
WIID/RC-048	New Route			MUT in Turke BAN in Syria	ey to	if any	lefer ence			Priority		Date of Proposal	ARN	TF/2		
	Route Descrip	tion		States Concerned		ected lemen- n date	1	Implementation Stat	us	ANI	? Status	Action Taken /	Requir	red		adline for h Action
				Cyprus, Syria, Turkey								IATA to provide fu				
Flight Level Ba	and:											Not From IATA bu	<mark>it fro Eu</mark>	irope		
Potential City OMDB, OSDI, LTAC, LTBA Greece, Turkey,	OTBD to LB (Arabian Peni	SF, LG insula a	AV, LROP,													
										_						
Conclusions/Re	emarks	Saves	10NM per fli	ight								Last updated		ARN T 2012	CF/5	February



MID/RC-050	ATS Route N New Route	Name:		Entry-Exit: ADV / DASDC	)	Inter-Re Cross Re if any	0			Users Priority		Originator of Proposal Date of Proposal	IATA ARN TF/2	
A northbound a	<b>Route Descript</b> irway that will DARAX or MII	avoid a	dog leg via	States Concerned	Impl	ected lemen- n date	Iı	mplementation	ı Status	ANI	• Status	Action Taken		Deadline for each Action
				Bahrain Iran UAE								IATA to provide fu UAE stated clearl		
Flight Level Ba	nd: Upper											implement this		
Potential City I OMAA to Iran,		h Ameri	ca			F				-				
Conclusions/Re	Conclusions/Remarks Saving 39 miles, 20 flts/day, 48 T				of CC	02 daily				-		Last updated	ARN 1 2012	F/5 February

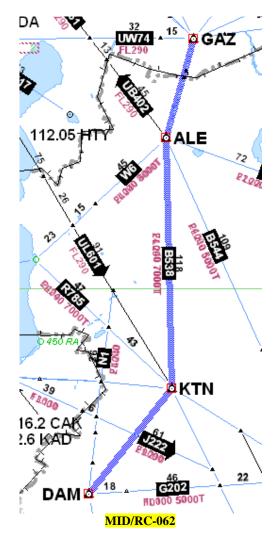


4C-63
-------

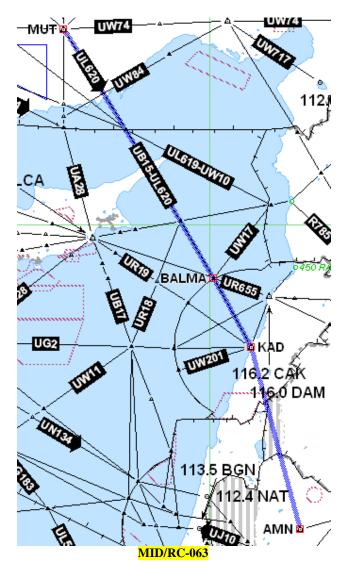
MID/RC-054	ATS Route I	Name:		Entry-Exit:		Inter-R	egional eference			Users		Originator Proposal	of	IATA		
WIID/RC-034	New Route			CVO-ANTAR		if any	ererence			Priority		Date of Prop	osal	ARN TF/2		
	<b>Route Descrip</b> Cairo TO ANT			States Concerned		ected lemen- n date	I	mplementation Sta	atus	ANI	<b>?</b> Status	Action Ta	aken / ]	Required		adline for ch Action
				Egypt								Not much Tra	ffic on	this route		
Flight Level Ba	nd: Upper											Military issues				
Potential City I	Pairs:											Differed for th	ne futu	re		
HECA and Arab	oian Peninsula	to Europ	be									No change				
														ARN	TF/5	February
Conclusions/Re	Conclusions/Remarks Saves 13 minutes											Last updated	l	2012	17/3	reordary



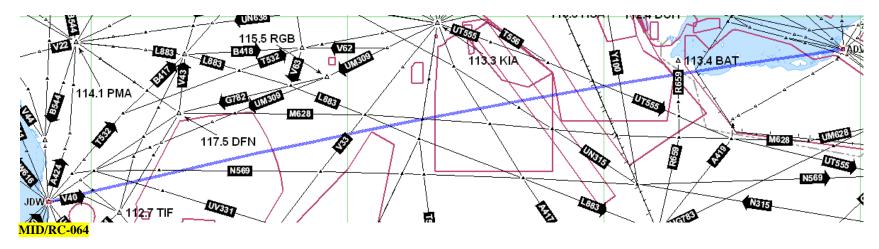
MID/RC-062	ATS Route Nan	ne:	Entry-Exit: GAZIANTEP		Inter-Regi Cross Refe			Users	High	Originator of Proposal	IATA	
(ex B538)	New Route		DAMASCUS		if any			Priority	ring.n	Date of Proposal	MIDANPIRO	J/10
]	Route Descriptior	1	States Concerned	Expect Impler tation	men-	I	nplementation Status	ANF	? Status	Action Taken/	Required	Deadline for each Action
(GAZIANTEP) ALEPPO KARIATAIN DAMASCUS			Syria		(I A (I K	<mark>B544)</mark> ALEPPO B538)	TEP – ALEPPO Established as – KARIATAIN Established as AIN – DAMASCUS not d			No updates		
Flight Level Ba	nd:											
Potential City I	Pairs:											
					-							
Conclusions/Re	marks Se	egment GAZIANT	TEP-ALEPPO imp	plemente	ed (B544)			÷		Last updated	ARN TF/	4 May 2011



MID/RC-063	ATS Route Name:		Entry-Exit:	Entry-Exit:		egional eference		Users	High	Originator of Proposal	IATA	
(ex B545)	New Route		BALMA-AMM	IAN	if any	ererence		Priority	Ingn	Date of Proposal	MIDANPIRO	5/10
:	Route Description		States Concerned		ected emen- n date	Iı	nplementation Status	ANI	? Status	Action Taken/	Required	Deadline for each Action
(MUT) BALMA 3428.9 KHALDEH AMMAN	N 035 3.0E		Amman Beirut Ankara				BALMA – KAHLDE ted as ( <b>UB15/UL620)</b> – AMMAN not implemented			No update		
Flight Level Ba	nd:											
Potential City I	Pairs:											
					ĺ							
Conclusions/Re	Conclusions/Remarks									Last updated	ARN TF/	4 May 2011

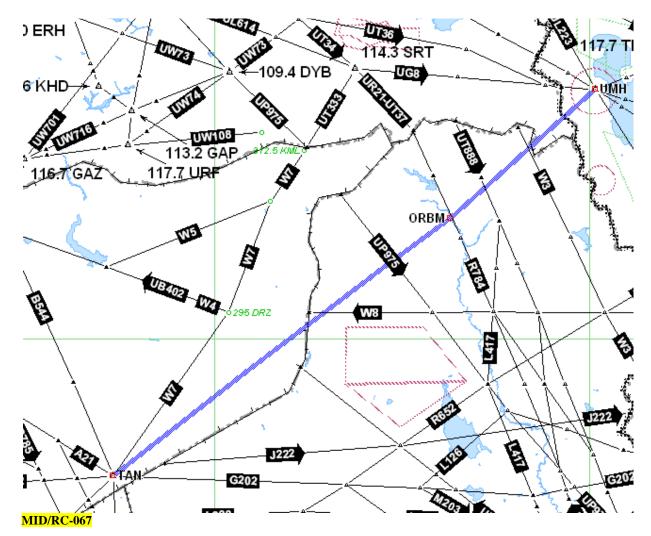


MID/RC-064			Entry-Exit:		Inter-Regional Cross Reference			Users	High	Originator of Proposal	IATA	
(ex G660)	New Route		JDW-ADV		if any			Priority	Figh	Date of Proposal	MIDANPIR Required	<del>3</del> /10
]	Route Descrip	tion	States Concerned	Expect Impler tation	men-	Implementation Statu	IS	ANI	? Status	Action Taken/I	Required	Deadline for each Action
KING ABDULA <mark>ABU DHABI *</mark>		<u>//)</u>	Saudi Arabia Bahrain UAE							No change to status		
Flight Level Ba	nd:											
Potential City I	Pairs:											
								-				
Conclusions/Remarks Military restrictions					I					Last updated	ARN TF/	4 May 2011



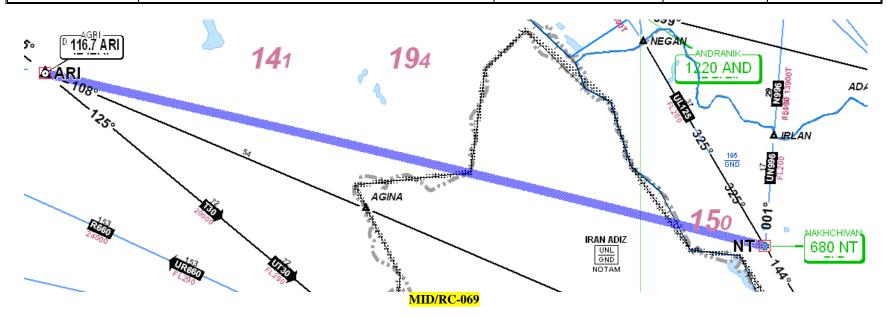
4C-69
-------

MID/RC-067	ATS Route Name:		Entry-Exit:	Entry-Exit:		Inter-Regional Cross Reference			Users	High	Originator of Proposal	IATA	
(ex G671)			TANF-UMH		if any	nce			Priority	Ingn	Date of Proposal	MIDANPIRO	G/10
]	Route Description		States Concerned		ected emen- n date	In	nplementation Statu	s	ANI	P Status	Action Taken/	Required	Deadline for each Action
TANF MOSUL UMH			Syria Iraq Iran								No update		
Flight Level Ba	nd:												
Potential City I	Pairs:												
									-				
Conclusions/Re	marks									Last updated	ARN TF	4 May 2011	



4C-/1	4C-71	
-------	-------	--

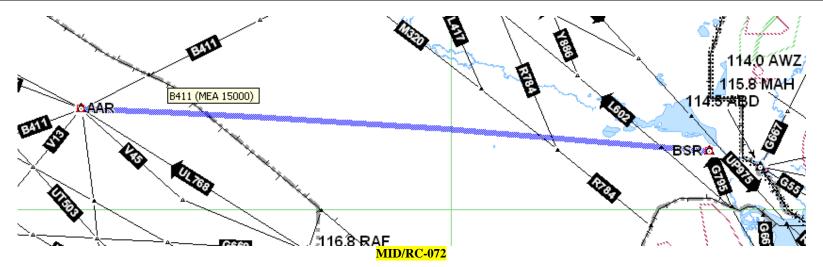
MID/RC-069	ATS Route Name:		Entry-Exit:	try-Exit: Inter I (Agri) Cross					Users	High	Originator of Proposal	Turkey (2002)	
	New Route		NT (Nakhchiva		if any				Priority	mgn	Date of Proposal	MIDANPIRO	G/10
	Route Description		States Concerned		cted emen- 1 date	Imj	plementation Stat	15	ANI	P Status	Action Taken/I	Required	Deadline for each Action
ARI (Agri) AAAAA (TUR/ BBBBB (IRN/A NT (Nakhchivan	ZE BDRY)		Turkia Iran Yerevan (AZE)								No update		
Flight Level Ba	nd:												
Potential City I	Pairs:								-				
Conclusions/Re	emarks	1	1	1	L				1		Last updated	ARN TF	4 May 2011



MID/RC-071	ATS Route Name:	Entry-Exit:		nter-Regional cross Reference		Users	High	Originator of Proposal	IATA	
MID/RC-071	New route	DELMA-A145		any		Priority	mgn	Date of Proposal	Date of Proposal ARN TF/1	
	Route Description	States Concerned	Expecte Implem tation d	en- I	Implementation Status		P Status	Action Taken/	Required	Deadline for each Action
route to point D 18NMs south of and crosses: CAI-JED FIR B 33 NMs south of V54 at BBBBB, TBK, W334 at G south-east of TF FFFFF on A424 UA791(HIL) an A788 at EEEEE of HIL from FF A145 ad crosses G662 at GGGG east of HIL V20 NMs south of NMs south of NMs south of SERPU UT50 NMs south-east W23 at LLLLL, SIBLI from MC continues norma	13 NMs south of CCCCC, 31 NMs 8K from DDDDD to 18 NMs south of d crosses: 31 NMs south-west FFFto MGA on : G, 47 NMs south- at HHHHH, 24 ALBU B417 at IIIII, vest of RARLO 0 NMs south-west 03 at KKKK, 9 of SERPU, and 36 NMs south of A, the route dly on A145.	Egypt Saudi Arabia						<ul> <li>Egypt and Sauc consider the pr future.</li> <li>Parallel to A791/A1</li> <li>No updates</li> </ul>	oposal for	
Conclusions/Re	emarks	1				1		Last updated	ARN TF/	4, May 2011

$+C^{-}/J$
------------

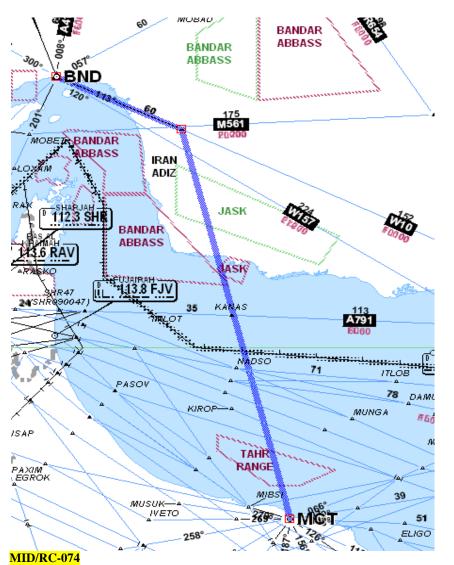
MID/RC-072	ATS Route Name:	ARRAR – C		Inter-Regional Cross Reference				Users	High	Originator of Proposal	IATA	
(ex B401)	New route	ARRAR – BASRAH (BSF	R)	if any				Priority	Ingn	Date of Proposal	ARN TF/1	
]	Route Description	States Concerned		ected emen- n date	I	nplementation Statu	IS	ANP Status		Action Taken/Required		Deadline for each Action
ARAR (AAR)		Saudi Arabia								- Not feasible at p	present.	
BASRAH (BSR	)	Iraq								No updates		
Flight Level Ba	nd: Upper Airspace											
Potential City I	Pairs:			Ī								
				-								
Conclusions/Re	emarks									Last updated	ARN TF/	4 May 2011



MID/RC-073	ATS Route Name:	<b>Entry-Exit:</b> MUT –		Inter-Regional Cross Reference if any				Users	High	Originator of Proposal	IATA	
(ex B410)	New route	DAMASCUS						Priority	Ingn	Date of Proposal	ARN TF/1	
	Route Description	States Concerned		cted emen- n date	I	Implementation Status		ANP Status		Action Taken/Required		Deadline for each Action
MUT CHEKA (CAK * Note 3 (OS) DAMASCUS (1	, 	Turkey Syria			Not imple	emented				No change		
Flight Level Ba	and: Upper Airspace											
Potential City I	Pairs:							-				
								-				
Conclusions/Re	emarks									Last updated	ARN TF/	4 May 2011

53 ŝ MUT 32 15 38 39 54 UW74 FL290 🔆 416.7 GAZ 38 UNA 114.5 AL 0 112.05 HTY Nisi Δ ULG10 Го. 118 2538 24,080 700 B 112.8 LCA M978-R78 1-R19 ß 27 9 - CAL 38 29 83 0 450 RJ J222 R000 N CAK 10 and 10 117.7 K⁻ Reso 39 FB000 Δ A 112.6 MAD 101 UG2 FL250 101 G2 \$000 25 25 J222 3 46 G202 FD000 5000T 18 DAMO 21 8 74 20 MID/RC-073

MID/RC-074	ATS Route Name:	Entry-Exit:		Inter-Region Cross Refere				Users	High	Originator of Proposal	IATA	
(ex R658)	New route	MUSCAT - BANDAR ABI		if any	ererence			Priority	Ingn	Date of Proposal	ARN TF/1	
	Route Description	States Concerned	Imple	Expected Implemen- tation date		Implementation Status		ANP	'Status	Action Taken/I	Deadline for each Action	
<del>SEEB</del> Muscat ( MELMI 2647.0 BANDAR ABB	N 05723.0E	Iran Oman			Not imple	mented.				Differed for the futu	re	
Flight Level Ba	nd: Upper Airspace											
Potential City I	Pairs:											
				-								
Conclusions/Re	emarks									Last updated	ARN TF/	4 May 2011



MID/RC-075	ATS Route Name:		Entry-Exit:		Inter-Regional Cross Reference if any				Users	High	Originator of Proposal	IATA	
	New route		ORTAP - BRN	1					Priority	riigii	Date of Proposal	ARN TF/2	
	Route Description		States Concerned	Imp	ected lemen- on date	Implementation Status			ANI	<b>?</b> Status	Action Taken/Required		Deadline for each Action
ORTAP BRN			Egypt Lybia			Not implemented.					Egypt has no objection to establish the route as Uni- directional Under study		
			Malta										
Flight Level Ba	and: Upper Airspace												
Potential City	Pairs:												
Conclusions/R	emarks	1	1	1		<u> </u>			1		Last updated	ARN TF/	4 May 2011

MID/RC-076	ATS Route Name:	Entry-Exit:		Inter-Re Cross Re				Users	High	Originator of Proposal	IATA	
	New route	AMIBO – DBA		if any	ererence			Priority	Ingn	Date of Proposal	ARN TF/2	
]	Route Description	States Concerned	Expec Imple tation	emen-	Implementation Status		s	ANP Status		Action Taken/Required		Deadline for each Action
AMIBO		Egypt			Not imple	emented.				No updates		
DBA		Lybia										
		Malta		_				In MID A	NP awaiting			
Flight Level Ba	nd: Upper Airspace							impler	mentation			
Potential City I	Pairs:											
				-				-				
Conclusions/Re	emarks									Last updated	ARN TF/	4 May 2011

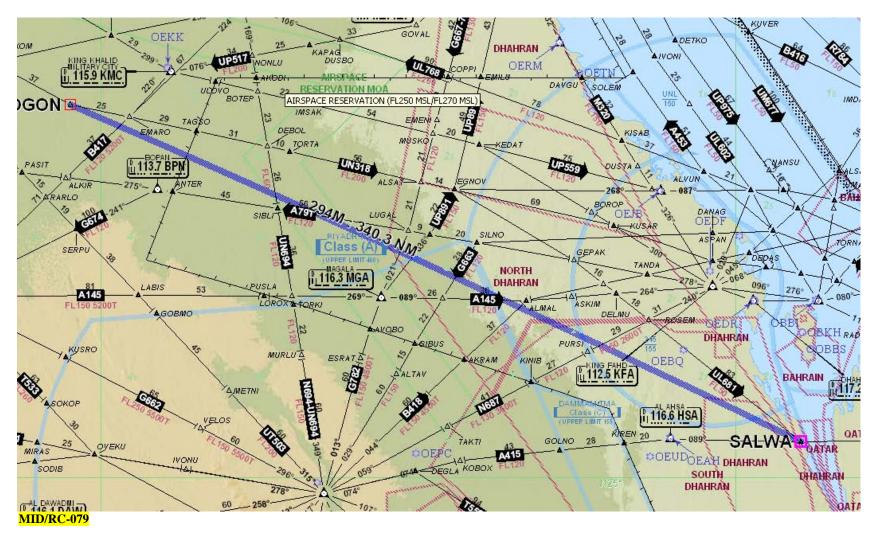
			Entry-Exit:		Ister D						Originator of Proposal	IATA	
MID/RC-077	ATS Route Name New route	:	BINKO - RAS LOSUL	NO -	) - Inter-Regiona Cross Referen if any Expected Implemen- ation date				Users Priority	High	Date of Proposal	ARN TF/2	
	Route Description		States Concerned	Impl			mplementation Statu	s	ANI	? Status	Action Taken/	Required	Deadline for each Action
BINKO			Egypt			Not implemented.					Egypt has no object		
RASNO			Lybia								establish the ro directional	ute as Uni-	
LOSUL			Malta								No change		
Flight Level Ba	nd: Upper Airspace												
Potential City I	Pairs:												
Conclusions/Re	emarks			1		1			I		Last updated	ARN TF	/4 May 2011

MID/RC-078	ATS Route Name:	Entry-Exit:		Inter-Regional Cross Reference if any				Users Priority	High	Originator of Proposal	ANP	
MID/RC-070	B412	DAM - ASH							mgn	Date of Proposal	17/May/2011	
	Route Description	States Concerned		ected emen- n date	Implementation Status			ANP Status		Action Taken/Required		Deadline for each Action
DAMASCUS (I	DAM)	Syria			-	Segment DAM – AS				Differed for the future		R
* Note 4(OS, O. [AMMAN]	J)	Jordan				F not achievable agreed to be moved TS Route Catalogue				Remove		
AL SHIGAR (A	SH)	Saudi Arabia						Removed from the ANP				
Flight Level Ba	nd:							Removed				
Potential City I	Pairs:											
								1				
Conclusions/Re	emarks							<u> </u>		Last updated	ARN TF/	4 May 2011

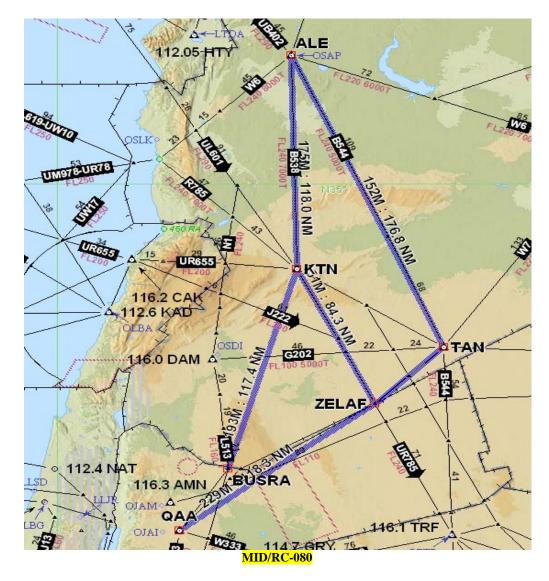


4C-81
-------

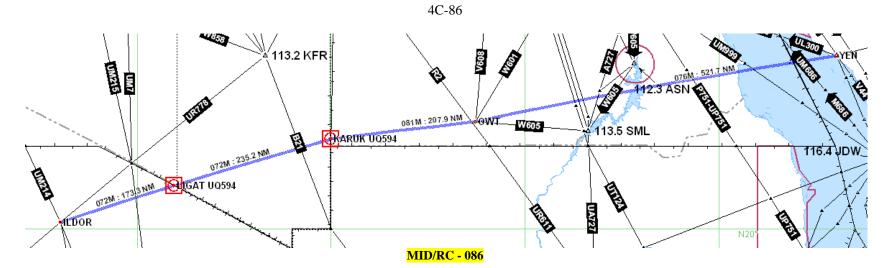
MID/RC-079	ATS Route N	Name:		Entry-Exit: SALWA -		Inter-Regional Cross Reference				Users	High	Originator of Proposal	Qatar Airway	s
MID/RC-075	New Route			MOGON		if any				Priority	Ingn	Date of Proposal	17-May-2011	
	Route Description			States Concerned	Impl	ected lemen- n date	I	mplementation	Status	ANI	P Status	Action Taken/I	Required	Deadline for each Action
	SALWA 2515.6N 05030.8E MOGON 2738.8N 04445.9E			Bahrain Saudi Arabia								traffic fro	for arrival om the West	
Flight Level Ba	nd:											<ul> <li>which would also a traffic to use this pro</li> </ul>		
Potential City I	Potential City Pairs:											segment		
Conclusions/Re	onclusions/Remarks Saves 11NM											Last updated ARN TF/		4 May 2011



MID/RC-080	ATS Route N	lame:		Entry-Exit:		Inter-Re Cross R				Users	High	Originator of Proposal	ICAO EUR/N	JAT
WIID/RC-000	New Route	Route BUSRA - I		BUSRA - KTN			ererence			Priority	Ingn	Date of Proposal	17 May 2011	
]	Route Description			States Concerned	Impl	if any Expected Implemen- tation date		mplementation Stat	us	ANP Status		Action Taken/Required		Deadline for each Action
	BUSRA 322000N 0363700E KARIATAIN (KTN)			Syria								State letter to be sen input.		
Flight Level Ba	nd:									Not	in ANP	Awaiting final appro implementation	oval for	
Potential City I	Pairs: HEGN -	UUDD												
Conclusions/Re	Conclusions/Remarks Shortens the dista			nce by 85NM.						•		Last updated	<mark>ARN T</mark> 2012	F/5 February



MID/RC-086	ATS Route Name:		Entry-Exit:		Inter-R	egional eference			Users	High	Originator of Proposal	IATA iFLEX	Proposal
WIID/KC-080	New Route UQ594; Bidirectional		ROB – OWT - YEN	if any		ererence			Priority	rigii	Date of Proposal	17 May 2011	
	Route Description		States Concerned	Imp	ected lemen- on date	I	mplementation S	tatus	ANI	? Status	Action Taken/	Required	Deadline for each Action
	0 1										with Libya; - Needs to with Egypt;	sing at	TBD
Flight Level Ba	Flight Level Band:												
Potential City	Potential City Pairs:												
Conclusions/Re	emarks										Last updated	ARN TF/	4 May 2011

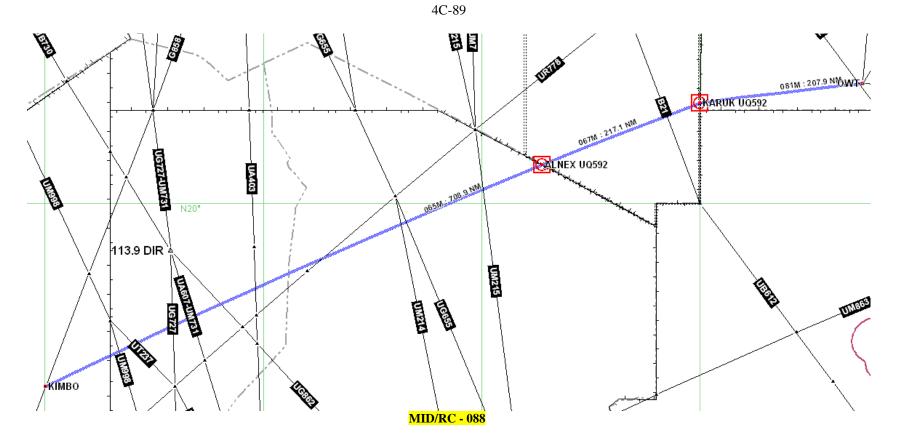


4C-87	
-------	--

MID/RC-087	ATS Route Name:		Entry-Exit:		Inter-Regional Cross Reference				Users	High	Originator of Proposal	IATA iFLEX	Proposal
	New Route UQ593;	Eastbound	TASBA – YEN	N	if any				Priority	8	Date of Proposal	17 May 2011	
	Route Description		States Concerned	Impl	ected lemen- n date	I	mplementation	Status	ANF	• Status	Action Taken/	Required	Deadline for each Action
TASBA 24 30 5	TASBA 24 30 59N 044 30 28E										- Connect TASBA via B148 to	DMA	
PMA YEN	PMA Saudi											PMA	TBD
Flight Level Ba	nd:												
Potential City I	Pairs:	1											
									-				
Conclusions/Re	marks										Last updated	ARN TF/	4 May 2011



MID/RC-088	ATS Route Name:		Entry-Exit:		Inter-Re	egional eference			Users	High	Originator of Proposal	IATA iFLEX	Proposal
MID/RC-000	New Route UQ592; Bidirectional		URUBI – ALN - KARUK	IEX	if any				Priority	mgn	Date of Proposal	17 May 2011	
	Route Description		States Concerned	Impl	xpected 1plemen- 1 tion date		nplementation Status		ANP Status		Action Taken/Required		Deadline for each Action
	0N 01 0100E 7.80N 0212303.94E 2.11N 0250 00E	Libya Egypt									with Libya; - Needs to with Egypt;	sing at	TBD
Flight Level Ba	nd:										Similar to MID/RC	- 086	
Potential City	Potential City Pairs:								-				
Conclusions/Re	emarks							•		Last updated	ARN TF/	4 May 2011	



MID/RC-089	ATS Route Name:		Entry-Exit: SALWA –		ter-Regional ross Reference			Users	II:-h	Originator of Proposal	IATA iFLEX	Proposal
MID/RC-089	New Route UQ591;	Eastbound	OTAMA – TASBA – ULABI - GIPAB		any			Priority	High	Date of Proposal	17 May 2011	
]	Route Description			Expected Implementation da	en- l	mplementation Status	s	ANI	? Status	Action Taken/	Required	Deadline for each Action
SAI WA 251539	SALWA 251538N 0503048E Bahrain									- Timed R	oute	
OTAMA 2351 4		Bahrain										
RESAL 240649		Saudi										TBD
TASBA 24 30 5	9N 044 30 28E	Arabia										
ULABI 2240221 JDW GIBAP 3536591												
Flight Level Ba	nd:	1						-				
Potential City F	airs:							]				
Conclusions/Re	marks	1			1			1		Last updated	ARN TF/	<mark>4 May 2011</mark>

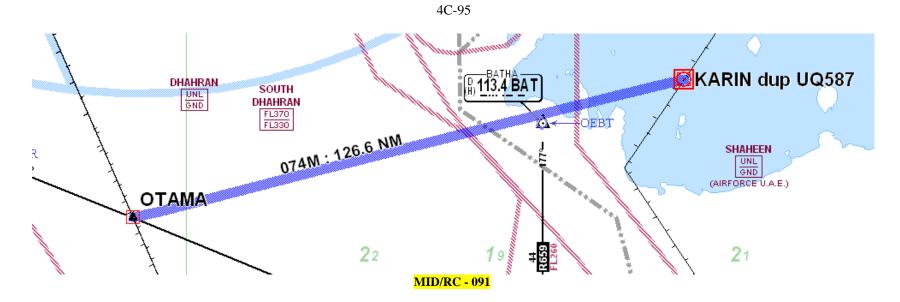
#### ARN TF/5-REPORT APPENDIX 4C

B544 57 557 Go. Ś 1 112.6 KE Ý V63 NGBT LEID ... 116.6 HSA UM321 112.4 D III Ne. IIISIS A415 UN638 116.1 DAW 115.5 RGB B418 SALWA 12.9 YENER 1556 ŝ 278M 142.4 NM 115.1 BDB UL300 V22 TASBA UM309 2 2713 3.15 AM L883 20-4M 113.4 BA RESAL ST 3 T532 114.1 PMA UM440 9-NM G782 UM309 L883 HLAB DIN 22 117.4 M628 AN L883 M628 **LINES** 1532 S. 117.5 DFN UNSIS. NOW YAD N569 L883 8M : 59.6 UV331 **EAL** (11)2.7 TIF GIBAP VAI MID/RC - 089

MID/ <mark>RC-090</mark>	ATS Route Name:		Entry-Exit:	, T	Inter-Reg Cross Re				Users	High	Originator of Proposal	IATA iFLEX	Proposal
	New Route UQ588;	Eastbound	JDW - UMRAN OTAMA	N	if any				Priority	e	Date of Proposal	17 May 2011	
	Route Description		States Concerned		cted emen- n date	Iı	mplementation Statu	s	ANP	Status	Action Taken/	Required	Deadline for each Action
	DW										- Timed R	oute	
SETLI 221608 UMRAN 04119	JDW MISAM 215415N 0400153E SETLI 221608N 0411924E UMRAN 0411924N 0452023E OTAMA 2351 47N 0494707E												TBD
Flight Level Ba	nd:												
Potential City	Pairs:												
					-								
Conclusions/Re	marks							•		Last updated	ARN TF/	4 May 2011	

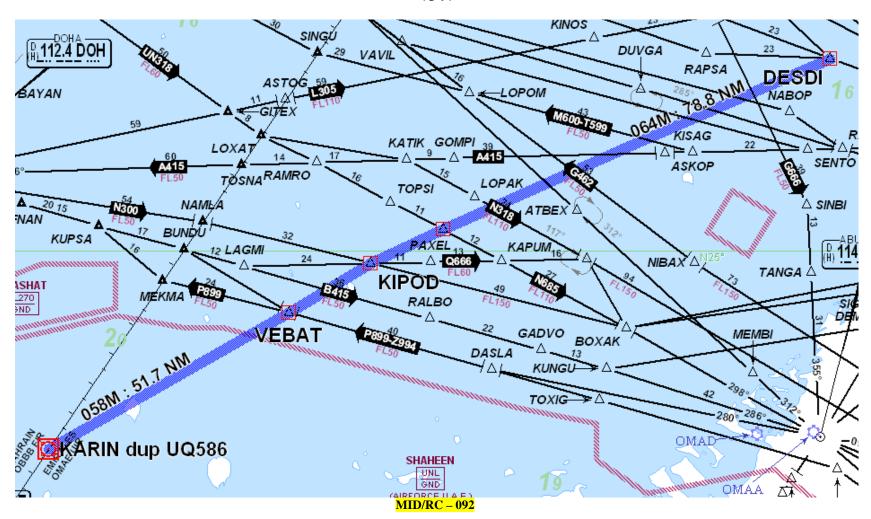
V22 113 3 KIA UL300 V V62 L883 B418 L883 BATT No. ΟΤΑΜΑ T532 M628 012M : 229 9 NM 078M : 247-2 NM UMAA 114.1 PMA G782 UM30 1683 M628 BAIL Ø 117.5 DEN UNSIS JDW VID N569 L883 RAI UV331 × 11/27 TIF E. asi 300 **MID/RC - 090** 

MID/RC-091	<b>ATS Route Name:</b> New Route UQ587;		Entry-Exit:		Inter-Reg Cross Ref				Users	High	Originator of Proposal	IATA iFLEX	Proposal
MID/RC 091	Bidirectional		OTAMA – KA	TAMA – KARIN		if any			Priority	mgn	Date of Proposal	17 May 2011	
	Route Description		States Concerned		ected lemen- n date	I	mplementatio	on Status	ANI	<b>?</b> Status	Action Taken/	Required	Deadline for each Action
	Saudi										- Note Poi duplicate 5LNC	nt KARIN is	
	OTAMA 2351 47N 0494707E KARIN 2422.7N 05201.6E Bahrain												TBD
Flight Level Ba	ind:												
Potential City	Potential City Pairs:												
Conclusions/R	emarks	•							•		Last updated	ARN TF	4 May 2011

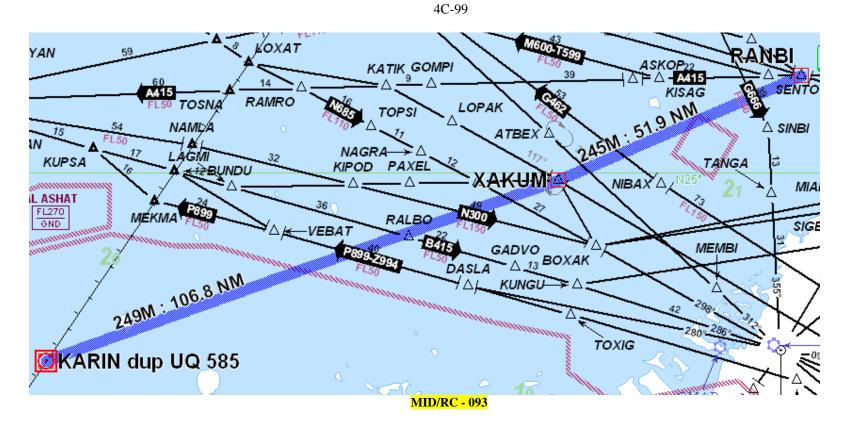


MID/RC-092	ATS Route Name:		Entry-Exit:		Inter-Reg Cross Re				Users	High	Originator of Proposal	IATA iFLEX	Proposal
WID/RC-072	New Route UQ586;	Eastbound	KARIN - DESI	JI	if any				Priority	mgn	Date of Proposal	17 May 2011	
	Route Description				ected lemen- n date	I	mplementation	Status	ANF	Status	Action Taken/	Required	Deadline for each Action
KARIN 2422 71	KARIN 2422.7N 05201.6E										- Note Poi duplicate 5LNC	nt KARIN is	
	KARIN 2422.7N 05201.6E           VEBAT 244830N 0525100E         Bahrain												TBD
NAGRA 25040	VEBA1 244830N 0525100E         Damain           KIPOD 245744N 0530756E         UAE           NAGRA 250407N 0532246E         DESDI 253603N 0544230E												
Flight Level Ba	nd:												
Potential City I	Pairs:												
					-								
Conclusions/Re	emarks								•		Last updated	ARN TF/	4 May 2011

ARN TF/5-REPORT APPENDIX 4C

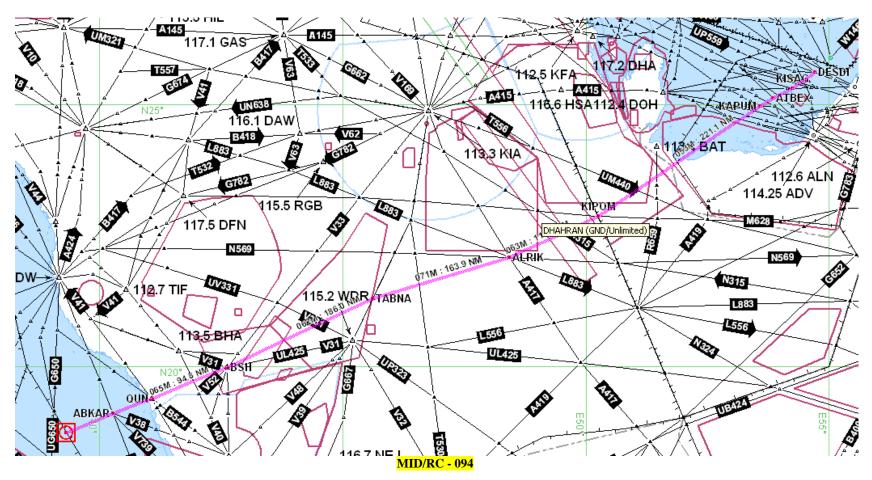


MID/RC-093	ATS Route Name:		Entry-Exit:		Inter-Regional Cross Reference				Users	High	Originator of Proposal	IATA iFLEX	Proposal
	New Route UQ585;	Westbound	RANBI - KARIN		if any				Priority	mgn	Date of Proposal	17 May 2011	
	Route Description			Impl	pected plemen- I on date		Implementation Status		ANP Status		Action Taken/	Required	Deadline for each Action
XAKUM 24583	RANBI 251908N 0544500E XAKUM 245833N 0535222E KARIN 2422.7N 05201.6E UAE										- Note Poi duplicate 5LNC	nt KARIN is	TBD
Flight Level Ba					-								
Potential City I	Potential City Pairs:				-								
Conclusions/Re	nclusions/Remarks										Last updated	ARN TF/	<mark>4 May 2011</mark>

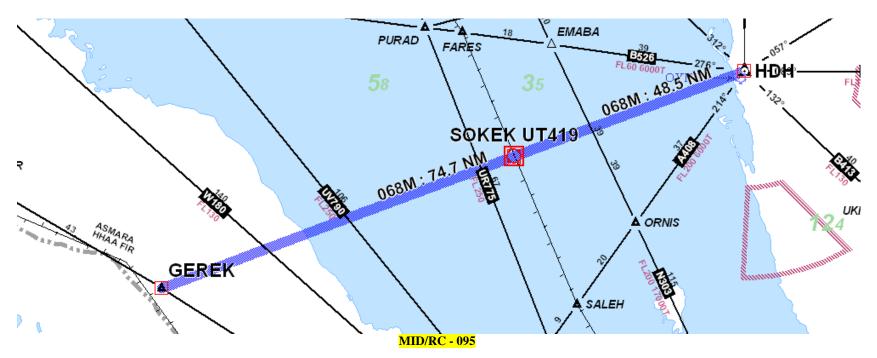


MID/RC-094	ATS Route Name:		Entry-Exit:		Inter-Regional Cross Reference			Users	High	Originator of Proposal		IATA iFLEX	Proposal	
WID/RC-094	New Route proposed Eastbound		TOKAR - DESDI		if any				Priority	Figli	Date of Propos	sal	17 May 2011	
Route Description			States Concerned	Impl	ected lemen- n date	I	mplementation Stat	18	ANF	• Status	Action Ta	ken/Re	equired	Deadline for each Action
TOKAR 180624 OTEMA 184200 ABKAR 190511 QUN BSH TABNA 211842 ALRIK 2206311 KIPOM 225316 KAPUM 245813 KISAG 2518341 DESDI 2536031	N 0391900E N 0401612E .3N 0453652.6E N 0482535E N 0501518E SN 0533450E N 0541408E	Saudi Arabia Bahrain UAE									initially agreed - it wa after - is to	as dele wards	Eastbound ted ; and cussed	TBD
Flight Level Band:				ł										
Potential City Pairs:														
					-			1						
Conclusions/Re									Last updated		ARN TF/	4 May 2011		

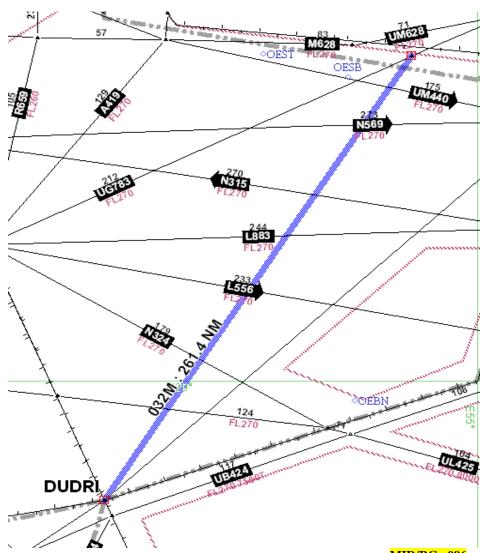
ARN TF/5-REPORT APPENDIX 4C



MID/RC-095	ATS Route Name: New Route UT419; Bidirectional		GEREK _ HDT _		Inter-Regional Cross Reference if any				Users	High	Originator of Proposal	IATA iFLEX	Proposal
								Priority	- ngn	Date of Proposal	17 May 2011		
Route Description			States Concerned	Imple	xpected nplemen- tion date		mplementation Statu	s	ANP Status		Action Taken/Required		Deadline for each Action
GEREK 140318 SOKEK 142932 HDH	N 0410000 E .45N 0421211.63E	Yemen									- Needs to coordinated with Ye		TBD
Flight Level Ba	Flight Level Band:												
Potential City Pairs:													
									-				
Conclusions/Re	•						·		Last updated	ARN TE	4 May 2011		



MID/RC-096	ATS Route Name: New Route UQ578; Bidirectional		Entry-Exit:		Inter-Re	Regional Reference			Users Priority	High	Originator of Proposal	IATA iFLEX	Proposal
MID/RC-090			DUDRI - TAN	SU							Date of Proposal	17 May 2011	
Route Description			States Concerned	Imple	xpected nplemen- tion date		mplementation Status		ANP Status		Action Taken/Required		Deadline for each Action
DUDRI 190000	DUDRI 190000N 0520000E Bahrain										- Level Re FL300/320	striction	
TANSU 224136	TANSU 224136N 0542828E UAE												TBD
Flight Level Ba	Flight Level Band:								-				
Potential City Pairs:								_					
Conclusions/Re	÷						•		Last updated	ARN TF/	4 May 2011		



<mark>MID/RC - 096</mark>

#### ARN TF/5-REPORT Appendix 4C

4C-106

MID/RC-097	<b>ATS Route Name:</b> New Route A/UA974; Northbound		Entry-Exit:		Inter-Regional Cross Reference				Users	High	Originator of Proposal	SCM Libya EUR	from IATA
			KANAR AMII	BO if any					Priority	Ũ	Date of Proposal		
Route Description		States Concerned	Expected Implemen- tation date		mplementatio	1 Status	ANI	P Status	Action Taken/Required		Deadline for each Action		
KANAR 3227.0N 02654.0E Egypt										Egypt Objected to A however proposed set			
		<mark>Libya</mark>									AMIBO	-gillent DBA	
AMIBO 3457.0	N 02136.0E	<mark>Malta</mark>								D ANP in AFI			
Flight Level Ba	und:								<u></u>	ANP			
Potential City l	Pairs:	-											
Conclusions/Re	Conclusions/Remarks								•		Last updated	ARN TF/	4 May 2011

#### ARN TF/5-REPORT APPENDIX 4C

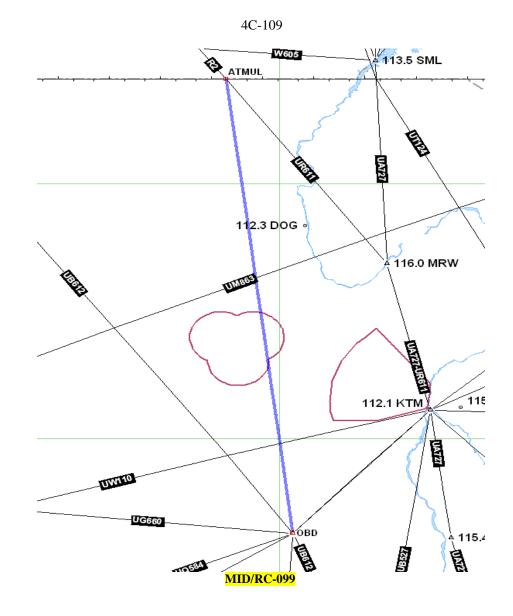
4C-107

MID/RC-098	ATS Route Name: CVO-W8-AST-W3- W601-OWT-R2-AT ASKOL	KHG-	Entry-Exit: CVO - ASKOI	_	Inter-Re Cross Re if any				Users Priority	High	Originator of Proposal Date of Proposal	IATA	
Route Description			States Concerned	Expected Implemen- tation date		I	mplementation S	atus	ANF	P Status	Action Taken/Required		Deadline for each Action
CVO AST KHG OWT ATMUL ASKOL		Egypt Sudan								D ANP not in T ANP	Egypt agreed in prin re-designation of do route W8 and W601 route designator and agreement after cons management Further coordination segments falling in J	mestic ATS to an RNAV will confirm sultation with	TBD
Flight Level Ba Potential City					-				-		FIR would be requir ICAO Nairobi Offic	ed with	
Conclusions/Re	emarks								-		Last updated	ARN T 2012	F/5 February

#### ARN TF/5-REPORT Appendix 4C

4C-108

MID/RC-099	ATS Route Name: New Route ATMUL-OBD		Entry-Exit:		Inter-Regional Cross Reference			Users	High	Originator of Proposal	IATA	
MID/RC-099			ATMUL-OBD		if any			Priority	6	Date of Proposal		
Route Description			States Concerned	Expect Imple tation	emen-	Implementation Stat	15	ANF	? Status	Action Taken/Required		Deadline for each Action
ATMUL OBD		Egypt <mark>Sudan</mark>								ATS Route Segment ATMUL to OBD in Khartoum FIR Further coordination	the	TBD
Flight Level Ba Potential City I	Flight Level Band:								D ANP not in <mark>I ANP</mark>	segments falling in H FIR would be requir	Chartoum ed with	
								-		ICAO Nairobi Offic	e	
Conclusions/Re	Conclusions/Remarks									Last updated	<mark>ARN 1</mark> 2012	F/5 February



#### ARN TF/5-REPORT Appendix 4C

4C-110

MID/RC	ATS Route Name:		Entry-Exit:		Inter-Regional Cross Reference				Users	High	Originator of Proposal		
WIID/ KC					if any			Priority	Tiigii	Date of Proposal			
Route Description		States Concerned		cted emen- n date	I	mplementation S	atus	ANI	<b>?</b> Status	Action Taken/	Required	Deadline for each Action	
Flight Level Ba	nd:												
Potential City F	Pairs:												
					_								
Conclusions/Re	Conclusions/Remarks										Last updated		<u> </u>

-----

#### ARN TF/5 Report on Agenda Item 5

#### REPORT ON AGENDA ITEM 5: REVIEW/UPDATE OF REGIONAL ACTIVITIES CARRIED OUT BY CANSO

5.1 The meeting recognized that the present traffic volume and the expected significant growth in traffic volume place urgent need for more capacity and efficiency improvement in ATM system, if these challenges are ignored or mistreated they will develop to be one of the major factors to limit aviation growth in the Region.

5.2 CANSO delivered a presentation to the meeting as at **Appendix 5A** to the report on Agenda item 5 detailing the objectives, progress and initial result, Validation of identified challenges, Proposed MIDRAR initiatives and MIDRAR Initiatives versus Challenges.

5.3 From the early stages of the project CANSO indicated that it has been agreed to conduct MIDRAR in three main phases:

Phase	Description
Phase 1 (Review)	In Phase 1 the project will establish a high level road map for the Middle East (ME) airspace capacity enhancement.
	This phase will include a preliminary identification of potential areas of capacity improvements for the ME region based on analysis of current and previous regional or national studies, national plans and expert judgment. This will be validated and further developed where possible through direct engagement with the ANSPs.
	Agreed challenges will be prioritized and potential opportunities will be proposed.
	Establishing a high level road map for the ME airspace improvement.
Phase 2 (Development and Implementation)	In Phase 2, the project will support the gradual implementation of the opportunities identified in Phase 1.
	The process will include a more detailed and evidence-based analysis of each challenge and, if appropriate, the development of an implementation strategy.
Phase 3 (Continuous Improvement)	Phase 3 will provide act as a platform for future improvements.

5.4 The meeting agreed with the challenges indentified by MIDRAR to be an appropriate high level description of the current situation. Furthermore, it was mutually agreed that MIDRAR is the appropriate regional activity among other regional activities to address these challenges

#### ARN TF/5 Report on Agenda Item 5

5.5 The next step will be to discuss and present the challenges and develop initiatives with the wider stakeholder community. The discussions are intended to validate the work to date to ensure that all aspects of the airspace are taken into consideration.

5.6 The meeting encouraged MID states to support and participate actively and nominate focal point to MIDRAR.

-----

ARN TF/5 REPORT Appendix 5A

## **MIDRAR**

Results of initial analysis 10.01.12 AC, AB



TRANSFORMING GLOBAL ATM PERFORMANCE

### Agenda

#### **✓Introductions**

Presentation of progress and initial results
 Validation of identified challenges
 Proposed MIDRAR initiatives



TRANSFORMING

ATM PERFORMANCE

## Middle East Regional Airspace Review (MIDRAR)

Middle East Regional Airspace Review (MIDRAR) project was formed by CANSO as a joint initiative to develop appositive solutions to airspace capacity constrains in the Middle East.



### **Geographical Scope**

- MIDRAR will consider a geographical area beyond the current CANSO membership and will include the Bahrain, Cairo, Amman, Muscat, Jeddah, Damascus, UAE and Kuwait FIRs.
- If the information is available, it will also seek to include Tehran and Baghdad





### **Objectives**

- Solve capacity challenges and improve efficiency in the Middle East airspace region's ATM through a regional approach
- Create a credible baseline for the region
- Conduct gap analysis
- Create and manage a credible programme for remedial action
- Drive improvement of ATM through moving towards optimally designed airspace
- Build consensus and buy-in



### Agenda

Introductions
 Presentation of progress and initial results

Validation of identified challengesProposed MIDRAR initiatives



TRANSFORMING GLOBAL ATM PERFORMANCE

## **Progress against Work Plan**

Work package	Status
WP1 Collection of existing information	<ul> <li>Required data collected (plans, studies, links)</li> <li>Web-based storage created at IATA web-site</li> <li>Further data collection as required</li> </ul>
WP2 Validate challenges and seek additional input	<ul> <li>First challenges presented during MEAUSE conference Nov. 11</li> <li>Further analysis and validation on going</li> </ul>
WP3 Prioritise challenges and identify regional opportunities/solutions	<ul> <li>First draft of final report created</li> </ul>
WP4 Buy-in Strategy	<ul> <li>Presentations i.e. ARN TF-4</li> </ul>
WP5 MEC3 Approval	• open



# Data collection results (excerpt of questionnaire results)

Question: Confirm if the list below are the underlying reasons for the challenges you are facing in your FIR

Reasons list	Ans	wer	Comment
	Yes	No	comment
a) increase in local/domestic flight	57%	43%	Military restrictions affect capacity and optimisation
b) increase in inbound out bound traffic	71%	2 <b>9</b> %	Military restrictions affect capacity and optimisation
c) overflying traffic	57%	29%	Military restrictions affect capacity and optimisation
d) cooperation and coordination with adjacent FIR	86%	0%	<ul><li>not all FIRs</li><li>extensive protocols</li></ul>
e) military restrictions	100%	0%	<ul> <li>improvements can be seen but more needs to be done on a regional basis</li> <li>long hours of reserved areas</li> </ul>
f) shortage in staff	86%	14%	recognised and acting upon
g) technical issues with own ATM system	0%	100%	
h) coordination with adjacent FIR and different standards in different FIRs	71%	14%	non harmonised operations in adjacent FIR e.g. RNP5 vs RNAV1&5

# Data collection results (excerpt of questionnaire results)

Question: Which type/number of CNS/ATM infrastructure in your FIR is a contribution factor in creating difficulties and chronic hotspot?

CNS/ATM infrastructure	Ansv	ver	Comment
	Yes	No	comment
a) surveillance system	57%	29%	<ul><li>only Empty Quarter</li><li>more and better systems required</li></ul>
b) shortage of navigation AIDs	2 <b>9</b> %	57%	
c) weak communication system	43%	43%	<ul><li>only Empty Quarter</li><li>advanced systems needed</li></ul>
d) Interface problems with adjacent centres	43%	43%	<ul><li>AMHS, OLDI and AMAN</li><li>missing/not sufficient Communication links</li></ul>
e) fixed/static sectorization	43%	43%	recognised and acting upon
f) old procedures	43%	43%	only Empty Quarter
g) old technology	29%	57%	as regional challenge

Responses received by: KSA, Egypt, Iran, UAE, Bahrain, Qatar and Jordan



### Agenda

Introductions
 Presentation of progress and initial results
 Validation of challenges
 Proposed MIDRAR initiatives



TRANSFORMING

ATM PERFORMANCE

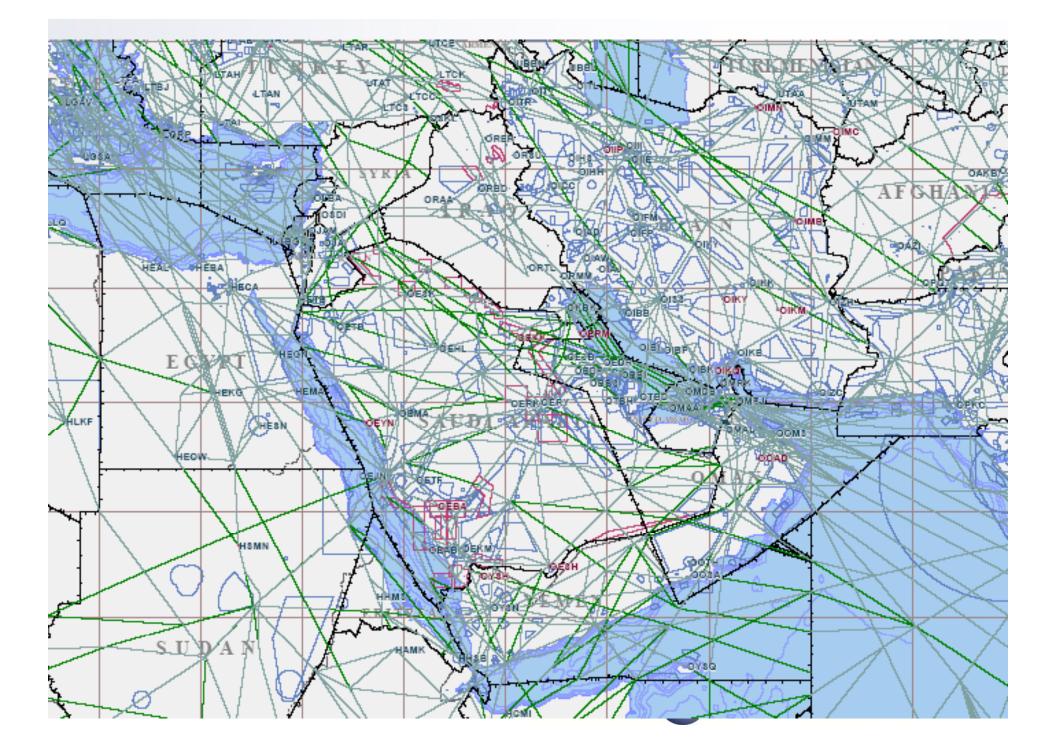
#### **Basic rules for Challenges**

Challenges
must have operational impact
must have a regional effect
must be specific enough to be resolvable



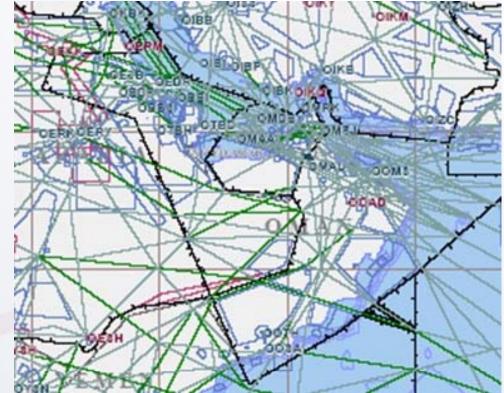
TRANSFORMING

PERFORMANCE



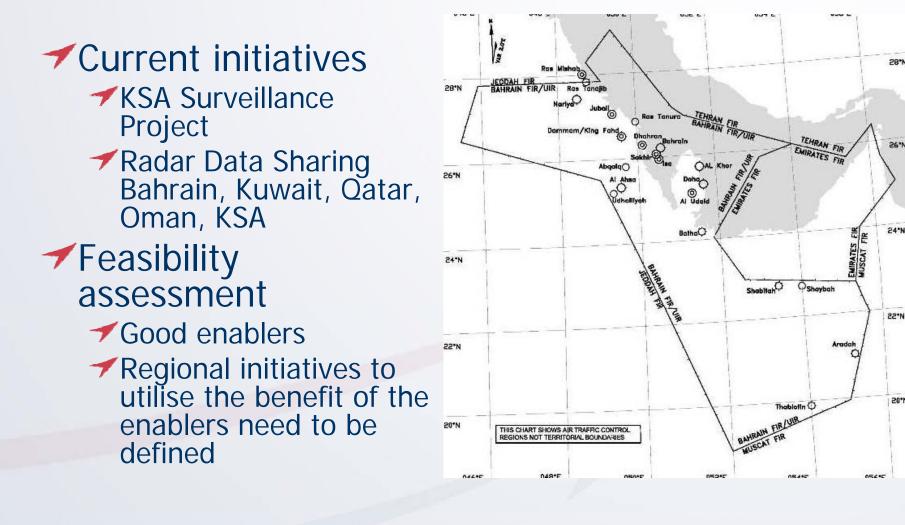
#### Bahrain "Hotspot"

Current initiatives Route Efficiency Proposal Feasibility assessment *r*Remedial measure only ✓It can only be resolved by regional measures





### **Empty Quarter Utilisation**





# **Oman interface to Bay of Bengal**

Current initiatives Flow control UAE/Oman FIR Reduction of separation standards in Mumbai FIR ✓FLAS in Mumbai FIR Airspace restructuring in Oman FIR Feasibility assessment All ideas are either non-desirable, outside the region or national approaches Better results could be achieved by embedding the Oman Airspace restructuring/capacity building as part of a regional airspace initiative



### **Increased access to Restricted Areas**

- Current initiatives
  - No specific regional projects
  - Discussions on national level on going to achieve local improvements
- Feasibility assessment
  - Needs targeted and coordinated regional/national activities
  - Resolution must be supported on a political level
  - MIDRAR has to demonstrate the benefits for all airspace users



#### **FIR boundary interfaces**

Current initiatives
 National projects (On going - Egypt, Qatar, finished - Oman, KSA, Bahrain)
 ACAC study (update)
 Feasibility assessment
 Impact on wider MENA region is not considered
 Needs targeted and coordinated regional/national activities



RFORMANCE

#### **Access to North-Eastern FIRs**

Current initiatives
National projects (i.e. Iran)
Feasibility assessment
Needs targeted and coordinated regional/national activities
Resolution must be supported on a political level
MIDRAR has to demonstrate the benefits for all airspace users and states



### Agenda

Introductions
 Presentation of progress and initial results
 Validation of challenges
 Proposed MIDRAR initiatives



# Initiatives (1) – short term

# Capacity initiative "South of Qatar Peninsular"

- Review airspace to the south of Qatar peninsular with regard to n-s traffic to/from Europe (Oman, Bahrain and UAE FIR)
  - Assess potential of new routes
  - Consider present CNS/ATM environment
  - Consider future CNS/ATM environment
  - Define and implement new structure
- Monitor/manage implementation of projects/changes



### Initiatives (2) – mid term

#### **Utilisation of "Western Gulf"**

- Review airspace of the Arabian peninsular and the adjacent Mediterranean coast (Oman, Bahrain, UAE plus Jeddah, Amman and Cairo FIR)
  - Assess existing route efficiency and potential for new routes
  - Consider present and future CNS/ATM environment
  - Address Civ/Mil coordination/FUA where appropriate
  - Define and progressively implement changes
- Update MIDRAR Roadmap (i.e. projects/initiatives)
- Monitor/manage implementation of projects/changes



## Initiatives (3) – longer term

#### **Access to North-Eastern FIRs**

- Identify and provide regional input into national/local initiatives
- Review airspace including the Arabian peninsular and the adjacent Mediterranean coast
  - Assess existing route efficiency and potential for new routes utilising these FIRs
  - Consider present and future CNS/ATM environment and results of initiatives 1, 2
  - Address Civ/Mil coordination/FUA where appropriate
  - Define changes, develop and maintain implementation plan
- Update MIDRAR Roadmap (i.e. projects/initiatives)
- Monitor/manage implementation of projects/changes



## Initiatives (4) – mid term

#### **FIRs Harmonisation**

- Provision of regional expertise to support intra regional harmonisation
  - Provide the regional perspective to national projects
  - Support the implementation of best practice including data sharing, common use of equipment, LoA negotiations etc.
- Centrally coordinate and monitor the implementation
- Assess the influence external activities (as provided by Initiative 5)
- Assess the influence of internal environment changes e.g. airport expansion and development or airline strategies



# Initiative (5)

### Strategic MIDRAR

- Monitor external activities and changing global environment (e.g. traffic forecasts)
- Provide information on changes in external plans etc. to Initiative 4
- Coordinate regional input into external activities
- New aircraft systems/types/operations (e.g. UAV)
- Military changes in operation



### **MIDRAR Initiatives vs Challenges**

	Bahrain "Hotspot"	Empty Quarter utilisation	Oman Interface to Bay of Bengal	Increased access to Restricted Areas	FIR Boundary interfaces	Access/ Capacity of Syria-Iraq- Iran airspace	Synchr. with External Influences
Capacity initiative "South of Qatar Peninsular"	✓	✓	(√)	(√)			
Utilisation of "Western Gulf" airspace	~	✓	~	(✓)	(✓)		
Access to Damascus, Baghdad and Tehran FIR				(√)	(✓)	√	
FIR Boundary Harmonisation	(✓)	(✓)	(✓)		$\checkmark$	(✓)	
Strategic MIDRAR					(√)		✓
MEAUSE				$\checkmark$			



### QUESTIONS



TRANSFORMING GLOBAL ATM PERFORMANCE

#### 6-1

#### ARN TF/5 Report on Agenda Item 6

#### **REPORT ON AGENDA ITEM 6: REVIEW AND UPDATE THE DEFICIENCIES IN THE ATS ROUTES NETWORK**

6.1 The meeting noted that the majority of the deficiencies are related to the elimination of portions/segments of ATS Routes that are of variance to the ANP ATS route Table 1 and the promulgation of contingency plans by MID States.

6.2 The meeting recalled the MIDANPIRG/12 Conclusion 12/75 and the DGCA-MID/1 Conclusion 1/2 – related to the elimination of Air Navigation deficiencies in the MID Region which require that MID States accord high priority to eliminate deficiencies with emphasis to those with priority (**U**) by allocating the necessary resources.

6.3 The follow-up on the updating of the list of deficiencies, which is considered as a living document, is an on-going process within the MIDANPIRG framework and the Secretariat is to reflect these identified/reported air navigation deficiencies in the MID Region. The meeting reviewed and updated the list of deficiencies as at **Appendix 6A** to the Report on Agenda Item 6.

-----

#### ARN TF/5 Appendix 6A to the Report on Agenda Item 6

#### Deficiencies in the ATM/SAR Field

#### BAHRAIN

Item No	Identif	fication	I	Deficiencies			Co	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	LIM/MID/RAN Concl. 3/7Cooperation between States in SAR	Bahrain with neighboring States	Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Work ongoing to sign agreements	S	<ul> <li>A. States to commence negotiations with neighbors to establish SAR agreements</li> <li>B. Implement operational SAR agreements</li> <li>C. Implement entry agreements for SAR aircraft of other States</li> </ul>	Bahrain	<del>Dec, 2011</del> Jun, 2012	А
2	<del>Annex 11</del> <del>Para. 2.30</del>	-	<del>Development of contingency plan <mark>Development of contingency</mark> <del>plan</del></del>	<del>Nov, 2006</del>	Under development : signed with Saudi Arabia, Qatar, Kuwait, Iran and Oman.	θ	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	<del>Bahrain</del>	<del>Dec, 2011</del>	A
					Pending : Agreement yet to be signed with UAE Under development : signed with Saudi Arabia, Qatar, Kuwait, Iran Oman and UAE.					

#### Deficiencies in the ATM/SAR Field

#### EGYPT

Item No	Identification		I	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	LIM/MID/RAN Concl. 3/7Cooperation between States in SAR	Most of MID States	Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Egypt has promulgated regulations and started development of SAR agreement with Cyprus and other States	S	<ul> <li>A. States to commence negotiations with neighbors to establish SAR agreements</li> <li>B. Implement operational SAR agreements</li> <li>C. Implement entry agreements for SAR aircraft of other States</li> </ul>	Egypt with neighboring States	<del>Dec, 2011</del> Dec, 2012	A		
2	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	-	Η	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Egypt ICAO	Dec, 2011 Dec - 2012	А		
3	MID ANP Table ATS 1	-	ATS Route L/UL315 not implemented	<del>Mar, 2007</del>	The segments CAIRO- HURGHADA- GIBAL are not implemented (Alternative A727)	<del>2</del>	-	Egypt	<del>Dec, 2011</del>	₿		

#### IRAN

Item No	Identif	ication	1	Deficiencies			C	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	LIM/MID/RAN Concl. 3/7Cooperation between States in SAR	Most of MID States	Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Work ongoing to sign agreements	S	<ul> <li>A. States to commence negotiations with neighbors to establish SAR agreements</li> <li>B. Implement operational SAR agreements</li> <li>C. Implement entry agreements for SAR aircraft of other States</li> </ul>	Iran with neighboring States	<del>Dec, 2011</del> Dec, 2012	А
2	Annex 11 Para. 2.30	-	Development of contingency plans	Nov, 2006	Ongoing	H O H	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Iran	<del>Dec, 2011</del> Jun, 2012	А
3	Annex 11 para. 2.27	-	Implementation of ATS Safety Management	Nov, 2006	Ongoing	H O	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Iran	<del>Dec, 2011</del> Jun, 2012	U
4	MID ANP Table ATS-1 Plan of ATS routes	Iran / UAE	ATS routes A418/UP574 not implemented KUMUN – PAPAR	Dec, 2006	KUMUN-PAPAR segment not implemented	S	States to continue negotiations with one another. Iran has no plan to implement the route segment	Iran and UAE	<del>Dec, 2011</del> Dec, 2012	В

Item No	Identif	fication	I	Deficiencies			Co	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination	for	Description	Executing Body	Date of Completion	Priority for Action
5	MID ANP Table ATS	-	ATS route UP574 was extended beyond Iran FIR during the Unilateral Change of the Iran FIR	<del>Jun, 2011</del>	The segment5 ULDUS (380000N 0510100E) to DODAG (390956N 0510137E) was extended by Iran through NOTAM without prior coordination. The segment ULDUS (380000N 0510100E) to DODAG (390956N 0510137E) was extended by Iran through NOTAM without prior coordination.	θ	Iran is required to revert back to the Original Exit point on ATS route UP574 until coordination with ICAO and concerned States is completed.	Iran	<del>Dec, 2011</del>	Ų
6	MID ANP Table ATS 1 extension of ATS route through the Unilateral Air Space Change of the Iran FIR	-	ATS route R794 was extended beyond Iran FIR during the Unilateral Change of the Iran FIR	<del>Jun, 2011</del>	The segment ULDUS (380000N 0510100E) to EGMIS (390153N 0503704E) was extended by Iran through NOTAM without prior coordination.	θ	Iran is required to revert back to the Original Exit point on ATS route UP574 until coordination with ICAO and concerned States is completed.         Iran is required to revert back to the Original Exit point on ATS route R794 until coordination with ICAO and concerned States is completed.	Iran	<del>Dec, 2011</del>	Ų

Item No	Identif	ication	I	Deficiencies			C	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
7	MID ANP Table ATS	-	ATS route UN319 was extended beyond Iran FIR during the Unilateral Change of the Iran FIR	<del>Jun, 2011</del>	The segment5 ULDUS (380000N 0510100E) to OTUNA (385037N 0500309E) was extended by Iran through NOTAM without prior coordination. The segment ULDUS (380000N 0510100E) to OTUNA (385037N 0500309E) was extended by Iran through NOTAM without prior coordination.	Φ	Iran is required to revert back to the Original Exit point on ATS route UP574 until coordination with ICAO and concerned States is completed. Iran is required to revert back to the Original Exit point on ATS route UN319 until coordination with ICAO and concerned States is completed.	Iran	<del>Dec, 2011</del>	ų

Item No	Identif	ïcation	I	Deficiencies			C	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
8	MID ANP Table ATS - 1 extension of ATS route through the Unilateral Air Space Change of the Iran FIR	-	ATS route UP567 was extended beyond Iran FIR during the Unilateral Change of the Iran FIR	<del>Jun, 2011</del>	The segment5 ULDUS (380000N 0510100E) to PAVUR (384506N 0494854E) was extended by Iran through NOTAM without prior coordination. The segment ULDUS (380000N 0510100E) to PAVUR (384506N 0494854E) was extended by Iran through NOTAM without prior coordination.	Ð	Iran is required to revert back to the Original Exit point on ATS route UP574 until coordination with ICAO and concerned States is completed. Iran is required to revert back to the Original Exit point on ATS route UP567 until coordination with ICAO and concerned States is completed.	Iran	<del>Dec, 2011</del>	Ų

Item No	Identif	ication	I	Deficiencies			Co	orrective Action		
110	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
9	MID-ANP Table ATS-1 establishment of ATS route through the Unilateral Air Space Change of the Iran FIR	-	ATS route UN39 was established beyond Iran FIR during the Unilateral Change of the Iran FIR. This designator is not from the MID ATS Route designator list.	Jun, 2011	The segment ULDUS (380000N 0510100E) to EGMIS (390153N 0503704E) was established by Iran through NOTAM without prior coordination.	θ	Iran is required to revert back to the Original Exit point on ATS route UP574 until coordination with ICAO and concerned States is completed. Iran is required to revert back to the Original Exit point on ATS route UN39 until coordination with ICAO and concerned States is completed.	Iran	Dec, 2011	ų

Item No	Identif	ïcation	I	Deficiencies			C	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
<del>10</del>	MID ANP Table ATS - 1 establishment of ATS route through the Unilateral Air Space Change of the Iran FIR	-	ATS route UN23 was established beyond Iran FIR during the Unilateral Change of the Iran FIR	<del>Jun, 2011</del>	The segment ULDUS (380000N 0510100E) to ORMUN(385733N 0502357E) was extended by Iran through NOTAM without prior coordination.	θ	Iran is required to revert back to the Original Exit point on ATS route UN23 until coordination with ICAO and concerned States is completed.	Iran	<del>Dec, 2011</del>	Ų
++	MID ANP Table ATS 1 establisment of ATS route through the Unilateral Air Space Change of the Iran FIR	-	ATS route G177 was ESTABLISHED beyond Iran FIR during the Unilateral Change of the Iran FIR	J <del>un, 2011</del>	The segment ULDUS (380000N 0510100E) to OTUNA (385037N 0500309E) was extended by Iran through NOTAM without prior coordination. The designator does not from part of the MID ATS Route designator list.	θ	Iran is required to delete and revert back to the Original FIR boundary point until coordination with ICAO and concerned States is completed.	Iran	<del>Dec, 2011</del>	ų

Item No	Identif	ïcation	E	Deficiencies			Co	orrective Action		-
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination	for	Description	Executing Body	Date of Completion	Priority for Action
12	MID ANP Table ATS - 1 extension of ATS route through the Unilateral Air Space Change of the Iran FIR	-	ATS route UN60 was extended beyond Iran FIR during the Unilateral Change of the Iran FIR	<del>Jun, 2011</del>	The segment LALDA (380000N 0510100E) to PAVUR (381615N 0494511E) was established by Iran through NOTAM without prior coordination. The designator is not from the MID ATS Route designator list.	θ	Iran is required to revert back to the Original Exit point on ATS route UN60 until coordination with ICAO and concerned States is completed.	Iran	<del>Dec, 2011</del>	Ŧ
<del>13</del>	MID ANP Table ATS 1 extension of ATS route through the Unilateral Air Space Change of the Iran FIR	-	ATS route A357 was established beyond Iran FIR during the Unilateral Change of the Iran FIR	<del>Jun, 2011</del>	The segment LALDA (381615N 0494511E) to PAVUR (384506N 0494511E) was extended by Iran through NOTAM without prior eoordination. The designator is not from the MID ATS Route designator list.	θ	Iran is required to delete and revert back to the Original FIR boundary until coordination with ICAO and concerned States is completed	Iran	<del>Dec, 2011</del>	Ų

Item No	Identif	ication	I	Deficiencies			C	orrective Action		
110	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination	for	Description	Executing Body	Date of Completion	Priority for Action
14	MID ANP Table ATS1 extension of ATS route through the Unilateral Air Space Change of the Iran FIR MID ANP Table ATS1 extension of ATS route through the Unilateral Air Space Change of the Iran FIR	-	ATS route UN25 was established beyond Iran FIR during the Unilateral Change of the Iran FIR	<del>Jun, 2011</del>	The segment LALDA (381615N 0494511E) to PUXOT(384125N 0493553E) was extended by Iran through NOTAM without prior coordination. The designator is not from the MID ATS Route designator list.	θ	Iran is required to revert back to the Original Exit point on ATS route UN25 until coordination with ICAO and concerned States is completed.	Iran	<del>Dec, 2011</del>	ų
<del>15</del>	MID ANP extension of FIR through the Unilateral Change of the Iran FIR	Change of the FIR Boundary	FIR was extended beyond the normal Iran FIR boundary during the Unilateral Change from those shown in the ANP Chart ATS 1	<del>Jun, 2011</del>	The Iran FIR boundary was extended by Iran through NOTAM without prior coordination from those of the FIRs comprising the MID region in the Basic ANP as shown in Chart ATS 1	θ	Iran is required to revert back to the Original FIR Boundary until coordination with ICAO and concerned States is completed	Iran	<del>Dec, 2011</del>	Ų

Item No	Identif	ication	D	Deficiencies			Co	Corrective Action				
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action		
16	MID ANP Table ATS - 1 Plan of ATS Routes	Iran / Iraq	ATS route L126 MIGMI ILM not implemeted ATS route L126 MIGMI - ILM not implemeted	Dec, 2011	MIGMI ILM not implemeted MIGMI - ILM not implemeted	S	States to continue negotiations with one another.	Iran / Iraq	Dec, 2012	В		
17	MID ANP Table ATS - 1 Plan of ATS Routes	Iran	ATS routes M316 not implemented KATUS – GOKSO	Dec, 2011	KATUS – GOKSO segment not implemented	0	Need to establish the ATS Route	Iran	Dec, 2012	В		

# IRAQ

Item No	Identif	fication	I	Deficiencies			C	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	LIM/MID/RAN Concl. 3/7Cooperation between States in SAR	Iraq with neighboring States	Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Work ongoing to sign agreements	S	<ul> <li>A. States to commence negotiations with neighbors to establish SAR agreements</li> <li>B. Implement operational SAR agreements</li> <li>C. Implement entry agreements for SAR aircraft of other States</li> </ul>	Iraq with neighboring States	Dec, 2011	А
2	MID ANP Table ATS-1 Plan of ATS Routes	-	ATS route G667 not implemented	Sep, 2006	Iraq has no plan to open the route	S	-	Iraq Iran Kuwait	Dec, 2011	В
3	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	-	S	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Iraq ICAO	Dec, 2011	А
4	Annex 11 para. 2.27	-	Implementation of ATS Safety Management	Nov, 2006	-	Н	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Iraq	Dec, 2011	U

Item No	Identif	ïcation	I	Deficiencies			Co	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
5	MID ANP Table ATS 1 Plan of ATS routes	Iraq and Syria	ATS route UP975 not implemented in the Baghdad and Damascus FIRs	<del>Dec, 2003</del>	Coordination between Iraq and Syria. Notam issued opening route in Baghdad FIR	<del>2</del>	States to negotiate with one another and coordinate opening of the route	<del>Iraq/Syria</del>	<del>Dec, 2011</del>	₿
6	MID ANP Table ATS-1 Plan of ATS routes	Iraq and Syria	ATS route UL602 not implemented in the Baghdad and Damascus FIRs	Dec, 2003	Coordination between Iraq and Syria. Notam issued opening route in Baghdad FIR	S	States to negotiate with one another and coordinate opening of the route	Iraq/Syria	Dec, 2011	В
7	MID ANP Table ATS-1 Plan of ATS routes	-	ATS route G795 Rafha- Basrah segment not implemented	May, 2008	Coordination between Iraq and Saudi Arabia.	S	States to negotiate coordination issues between the two FIRs, update LoA and coordinate opening of the route	Iraq and Saudi Arabia	Dec, 2011	В
8	MID ANP Table ATS-1 Plan of ATS routes	-	ATS route A424 LOTAN - LOVEK segment (Baghdad FIR) not implemented	May, 2008	Communication problems between concerned FIRs	0	No plan to open the route.	Iraq	Dec, 2011	В
9	MID ANP Table ATS-1 Plan of ATS routes	Iraq	ATS Route G669 segment Rafha SOLAT not implemented	May, 2008	Airspace restrictions	S	Airspace restrictions to be addressed	Iraq	Dec, 2012	В
10	Annex 11 Para 3.3.4.1	Iraq	Non-provision of required data to the MIDRMA ON Regular basis and in a timely manner	Nov, 2011	Non-provision of required data to the MIDRMA Ongoing	0	Need to provide the MIDRMA with required data on regular basis in order to enable it to discharge its functions and responsibilities	Iraq MIDRMA	Apr, 2012	A
11	MID ANP Table ATS - 1 Plan of ATS routes	Iraq/Iran	ATS routes L126 not implemented MIGMI – ILM	Dec, 2011	MIGMI – ILM segment not implemented	S	States to continue negotiations with one another.	Iraq/Iran	Dec, 2012	В

Item No	Identif	fication	Г	Deficiencies			C	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
12	MID ANP Table ATS-1 Plan of ATS routes	Iraq	ATS routes M320 implemented with variance to Table ATS 1, Causing a Safety concern due duplication.	Dec, 2011	RUGIR to RAPLU implemented at variance with the Plan. affecting safety due duplication.	S	Iraq to negotiate with Kuwait for the extention of the route into Baghdad FIR as depicted in Iraq AIP and proposed for an amendment to the MID ANP.	Iraq	Dec, 2012	В
13	MID ANP Table ATS-1 Plan of ATS routes	Iraq	ATS routes R652 GIBUX - IVANO implemented at variance with the ANP Causing a safety concern due duplication	Dec, 2011	GIBUX - IVANO implemented at variance with the Plan. Affecting safety	S	To delete Segment from the AIP or use a temporary route designator.	Iraq	Dec, 2012	В

## JORDAN

Item No	Identif	ïcation	I	Deficiencies			Co	orrective Action		
110	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
+	MID ANP Table ATS-1Plan of ATS routes	Jordan, Syria	ATS route G662 not implemented — Negotiations with military ongoing, in advanced stage	<del>Dec, 1997</del>	Not implemented Damascus to Guriat	S	States to continue coordination to achieve implementation	<del>Jordan, Syria</del>	<del>Dec, 2011</del>	₿
2	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	National Contingency plan developed	H S H	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Jordan	Dec, 2011	А
3	Annex 11 para. 2.27	-	Implementation of ATS Safety Management	Nov, 2006	Work in progres SMS developed and details will be forwarded to ICAO	F H H	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Jordan	<del>Dec, 2011</del> Jun, 2012	U
4	MID ANP Table ATS-1	-	ATS Route UP559 not implemented	Mar, 2007	The segments TURAIF-TONTU- DAMASCUS- DAKWE- KHALDEH- KUKLA- LARNACA are not implemented.	S	-The segments TURAIF- TONTU-DAMASCUS- DAKWE-KHALDEH-KUKLA- LARNACA are not implemented	Jordan-Lebanon and Syria	<del>Dec, 2011</del> Dec, 2012	В
					Jordan Has no plans to implement					

Item No	Identif	ication	1	Deficiencies		0	corrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination	Description	Executing Body	Date of Completion	Priority for Action
5	LIM/MID/RAN Concl. 3/7Cooperation between States in SAR	Jordan with neighboring States	Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Work ongoing to sign agreements	<ul> <li>A. States to commence negotiations with neighbors to establish SAR agreements</li> <li>B. Implement operational SAR agreements</li> <li>C. Implement entry agreements for SAR aircraft of other States</li> </ul>	Jordan	Jun, 2012	A

## KUWAIT

Item No	Identif	fication	I	Deficiencies			Co	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	LIM/MID/RAN Concl. 3/7Cooperation between States in SAR	Kuwait with neighboring States	Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Work ongoing to sign agreements	S	<ul> <li>A. States to commence negotiations with neighbors to establish SAR agreements</li> <li>B. Implement operational SAR agreements</li> <li>C. Implement entry agreements for SAR aircraft of other States</li> </ul>	Kuwait with neighboring States	<del>Dec, 2011</del> Dec, 2012	А
2	Annex 11 para. 2.27	-	Implementation of ATS Safety Management	Nov, 2006	Implementation of SMS is expected to start in April 2007	Н	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Kuwait	<del>Dec, 2011</del> Dec, 2012	U
3	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	Continegency Plan was signed with Bahrain and Iran. Work is progressing for the coordination with other neighboring States Continegency Plan was signed with Bahrain and Saudi Arabia. Contingency Plan with Iraq and Iran is still awaited to be signed	H S S	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Kuwait	<del>Dec, 2011</del> Dec, 2012	A

Item No	Identif	ication	D	eficiencies			Co	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
4	MID ANP Table ATS 1 Plan of ATS routes	-	ATS route G669 segment Rafha SOLAT not implemented	<del>May, 2008</del>	Airspace restrictions	8	- Airspace restrictions to be addressed - Kuwait has no plan to activate the route segment. - Iraq ready to implement segment Rafha - SOLAT	Kuwait	<del>Dec, 2011</del>	₿

## LEBANON

Item No	Identif	fication	I	Deficiencies			Co	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	LIM/MID/RAN Concl. 3/7Cooperation between States in SAR	Lebanon with neighboring States	Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Work ongoing to sign agreements. Agreement signed with Cyprus.	S	<ul> <li>A. States to commence negotiations with neighbors to establish SAR agreements</li> <li>B. Implement operational SAR agreements</li> <li>C. Implement entry agreements for SAR aircraft of other States</li> </ul>	Lebanon with neighboring States	<del>Dec, 2011</del> Dec, 2012	А
2	MID ANP Table ATS 1Plan of ATS routes	Lebanon Syria	ATS route G202 not implemented	<del>Dec, 1997</del>	Not implemented DAKWE – Damascus Economic impact– alternative routes available but longer– Not affecting safety	<u>\$</u>	ICAO to follow up. Lebanon intends to discuss realignment with Syria	Lebanon Syria	<del>Dec, 2011</del>	₿
3	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	A plan has been developed and will be forwarded to the MID Regional Office	H Ə S	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Lebanon ICAO	<del>Dec, 2011</del> Jun, 2012	А
4	Annex 11 para. 2.27	-	Implementation of ATS Safety Management	Nov, 2006	-	Н	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Lebanon	<del>Dec, 2011</del> Jun, 2012	U

Item No	Identif	ïcation	E	Deficiencies			Co	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination	-	Description	Executing Body	Date of Completion	Priority for Action
5	MID ANP Table ATS-1	-	ATS Route UP559 not implemented	Mar, 2007	The segments TURAIF-TONTU- DAMASCUS- DAKWE- KHALDEH- KUKLA- LARNACA are not implemented	S	-	Jordan-Lebanon and Syria	<del>Dec, 2011</del> Jun, 2012	В

### OMAN

Item No	Identif	lication	I	Deficiencies			Co	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	LIM/MID/RAN Concl. 3/7Cooperation between States in SAR	Oman with neighboring States	Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Work ongoing to sign agreements	S	<ul> <li>A. States to commence negotiations with neighbors to establish SAR agreements</li> <li>B. Implement operational SAR agreements</li> <li>C. Implement entry agreements for SAR aircraft of other States</li> </ul>	Oman with neighboring States	<del>Jun, 2012</del> Dec, 2012	A
2	Annex 11 Para. 2.30	-	Development of contingency plans	Nov, 2006	Under development : signed with Bahrain, Iran AND Yemen pending : Agreement yet to be signed with UAE, Pakistan and India Under development : Agreement yet to be signed with , Pakistan and India	H O S	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Oman	<del>Dec, 2011</del> Feb, 2012	A

# QATAR

Item No	Identif	ication	1	Deficiencies			C	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	LIM/MID/RAN Concl. 3/7Cooperation between States in SAR	Qatar and Bahrain with neighboring States	Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Lack of SAR agreements can be detrimental to safety of persons in distress where searches overlap national boundaries. Draft Model SAR agreements adopted at MIDANPIRG/5. No significant progress achieved- ICAO to assist	S	<ul> <li>A. States to commence negotiations with neighbors to establish SAR agreements</li> <li>B. Implement operational SAR agreements</li> <li>C. Implement entry agreements for SAR aircraft of other States</li> </ul>	Qatar and Bahrain	Dec, 2011	A
2	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	Work in progress; agreement signed with Bahrain	S	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Qatar Bahrain ICAO	Dec, 2011	А
3	MID ANP Table ATS - 1	-	ATS Route L/UL443 not implemented	Nov, 2012	The segment KUPSA AMBEK LAGVA LOPOK TAMRI are not implemented	S	need to establish the route	Qatar	Dec, 2012	В

# SAUDI ARABIA

Item No	Identif	fication	I	Deficiencies			C	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	LIM/MID/RAN Concl. 3/7Cooperation between States in SAR	Saudi Arabia with neighboring States	Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Work ongoing to sign agreements. Ready to sign agreement as per drafted (model) agreement presented at ATM/SAR/AIS SG/10 SAR National Board established	S	<ul> <li>A. States to commence negotiations with neighbors to establish SAR agreements</li> <li>B. Implement operational SAR agreements</li> <li>C. Implement entry agreements for SAR aircraft of other States</li> </ul>	Saudi Arabia with neighboring States	<del>Dec, 2011</del> Dec, 2012	A
2	MID ANP Table ATS 1Plan of ATS routes	<del>Qatar Saudi</del> <del>Arabia</del>	ATS route A415 implemented with variance to Table ATS 1	<del>Dec, 1997</del>	Doha to King Khalid implemented at variance with the Plan . slightly longer Military restrictions Economic impact- Not affecting safety. Negotiations with military ongoing	S	-	<del>Saudi Arabia</del> <del>Qatar</del>	<del>Dec, 2011</del>	₽

Item No	Identif	ication	Г	Deficiencies			Co	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
3	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	A draft contingency plan not fully compliant with the agreed template has been developed. Further work being done in coordination with adjacent States.	H O S	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Saudi Arabia	<del>Dec, 2011</del> Dec, 2012	А
4	Annex 11 para. 2.27	-	Implementation of ATS Safety Management	Nov, 2006	QMS Department established. SMS development plan adopted in November 2007	Н	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Saudi Arabia	<del>Dec, 2011</del> Dec, 2013	U

### **SYRIA**

Item No	Identif	ication	I	Deficiencies			Co	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination	for	Description	Executing Body	Date of Completion	Priority for Action
1	LIM/MID/RAN Concl. 3/7Cooperation between States in SAR	Syria with neighboring States	Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Work ongoing to sign agreements. Agreement with Turkey and Cyprus completed. Agreement with Iraq, Jordan and Lebanon pending	S	<ul> <li>A. States to commence negotiations with neighbors to establish SAR agreements</li> <li>B. Implement operational SAR agreements</li> <li>C. Implement entry agreements for SAR aircraft of other States</li> </ul>	Syria with neighboring States	Dec, 2011	А
2	MID ANP Table ATS-1Plan of ATS routes	Lebanon Syria	ATS route G202 not implemented	Dec, 1997	Not implemented DAKWE - Damascus Economic impact- alternative routes available but longer- Not affecting safety	S	ICAO to follow-up Syria has no plan to implement the route	Lebanon Syria	Dec, 2011	В
3	MID ANP Table ATS-1 Plan of ATS routes	Iraq Syria	ATS route UL602 not implemented in the Baghdad and Damascus FIRs	Dec, 2003	Coordination between Iraq and Syria	S	States to negotiate with one another and coordinate opening of the routes	Iraq and Syria	Dec, 2011	В
4	MID ANP Table ATS 1 Plan of ATS routes	<del>Iraq Syria</del>	ATS route-UP975 not implemented in the Baghdad and Damascus FIRs	<del>Dec, 2003</del>	Coordination between Iraq and Syria	<del>\$</del>	States to negotiate with one another and coordinate opening of the routes	Iraq and Syria	<del>Dec, 2011</del>	₿

Item No	Identif	ïcation	I	Deficiencies			Co	orrective Action		
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
5	Annex 11 Para. 2.30	-	Development of contingency plans	Nov, 2006	Draft available	H O	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Syria	Dec, 2011	A
6	Annex 11 para. 2.27	-	Implementation of ATS Safety Management	Nov, 2006	Committee established	Н	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Syria	Dec, 2011	U
7	MID ANP Table ATS-1	-	ATS Route UP559 not implemented	Mar, 2007	The segments TURAIF-TONTU- DAMASCUS- DAKWE- KHALDEH- KUKLA- LARNACA are not implemented	S	Syria has no plan to implement the route.	Jordan-Lebanon and Syria	Dec, 2011	В

#### UAE

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination	for	Description	Executing Body	Date of Completion	Priority for Action
1	LIM/MID/RAN Concl. 3/7Cooperation between States in SAR	UAE with neighboring States	Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Work ongoing. The agreement with Bahrain and Oman to be updated and the one with iran has to be developed/coordinat ed.	S	<ul> <li>A. States to commence negotiations with neighbors to establish SAR agreements</li> <li>B. Implement operational SAR agreements</li> <li>C. Implement entry agreements for SAR aircraft of other States</li> </ul>	UAE with neighboring States	Dec, 2012	А
2	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	Plan completed and Agreements signed with Bahrain and Oman. Others pending	0	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services signed with Oman, pending signature with Bahrain, Iran and Qatar	UAE	<del>Dec, 2011</del> Dec, 2012	A
3	MID ANP Table ATS-1 Plan of ATS routes	Iran / UAE	ATS routes A418/UP574 not implemented KUMUN – PAPAR	Dec, 2006	KUMUN-PAPAR segment not implemented	S	States to continue negotiations with one another The UAE considers options for a resolution to be exhausted	Iran and UAE	<del>Dec, 2011</del> Dec, 2012	В

## YEMEN

Item No	Identification		Deficiencies			Corrective Action				
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	LIM/MID/RAN Concl. 3/7Cooperation between States in SAR	Yemen with neighboring States	Lack of Search and Rescue Agreements between neighboring States	Nov, 1994	Ongoing	S	<ul> <li>A. States to commence negotiations with neighbors to establish SAR agreements</li> <li>B. Implement operational SAR agreements</li> <li>C. Implement entry agreements for SAR aircraft of other States</li> </ul>	Yemen with neighboring States	Dec, 2011	А
2	Annex 11 para. 2.27	-	Implementation of ATS Safety Management	Nov, 2006	-	Н	Need to establish a safety programme in order to achieve an acceptable level of safety in the provision of ATS	Yemen	Dec, 2011	U
3	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	Ongoing	H O	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Yemen	Dec, 2011	А
4	Annex 11 Para. 3.3.4.1	-	Non-provision of required data to the MID RMA on regular basis and in a timely manner	Oct, 2010	-	0	Need to provide the MID RMA with required data on regular basis, in order to enable it to discharge its functions and responsibilities Completion date not given	Yemen, MID RMA, ICAO	<del>Dec, 2011</del> Apr, 2012	А

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.

_____

#### 7-1

#### ARN TF/5 Report on Agenda Item 7

#### **REPORT ON AGENDA ITEM 7: FUTURE WORK PROGRAMME**

7.1 The meeting agreed that, in accordance with the MIDANPIRG Procedural Handbook, and based on Terms of Reference (TOR) and Action Plan of the Task Force, the ARN TF/5 meeting could be tentatively scheduled for the first quarter of 2013. The actual dates however, would depend on MID Regional Office workload/activities and would thus be confirmed in due course. The duration would be three (3) working days. The venue would be Cairo, unless a State indicates an interest in hosting the meeting.

7.2 The meeting agreed to the updated Provisional Agenda for the ARN TF/6 meeting, as at **Appendix 7A** to the Report on Agenda Item 7.

-----

### ARN TF/5 Appendix 7A to the Report on Agenda Item 7

#### SIXTH MEETING OF THE ATS ROUTES NETWORK TASK FORCE

#### (ARN TF/6)

#### **PROVISIONAL AGENDA**

- Agenda Item 1: Adoption of the Provisional Agenda
- Agenda Item 2: Follow-up on MIDANPIRG and other meetings Conclusions and Decisions relevant to ATS Route Network
- Agenda Item 3: Review ATS Routes Network
- Agenda Item 4: Amendments to the ATS Routes Network Catalogue
- Agenda Item 5: Review/update the deficiencies in the ATS Routes Network
- Agenda Item 6: Future Work Programme
- Agenda Item 7: Any other business

-----

## ARN TF/5 Report on Agenda Item 8

# **REPORT ON AGENDA ITEM 8: ANY OTHER BUSINESS**

8.1 Nothing has been discussed under this Agenda Item.

-----

## ARN TF/5 Attachment A to the Report

# LIST OF PARTICIPANTS

NAME	TITLE & ADDRESS
STATES	
BAHRAIN	
Mr. Salah Mohamed Alhumood	Head, Aeronautical Information & Airspace Planning Civil Aviation Affairs Bahrain International Airport P.O. Box 586 KINGDOM OF BAHRAIN Fax: (973) 17 329 966 Tel: (973) 17 321 180 Mobile: (973) 3640 0424 Email: shumood@caa.gov.bh
Mr. Saleem Mohamed Hassan	Chief Air Traffic Management Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: (973) 17 329 966 Tel: (973) 17 321 117 Mobile: (973) 39 608 860 Email: saleemmh@caa.gov.bh
Mr. Ahmed Mohamed Ali	Air Traffic Control Supervisor Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: (973) 17 321 029 Tel: (973) 17 321 081 Mobile: (973) 39 522 696 Email: a.ali@caa.gov.bh
EGYPT	
Mr. Ahmed Mahmoud Mohamed Hussien	Air Traffic Controller National Air Navigation Services Company Cairo International Airport Cairo Airport Road Cairo - EGYPT Fax: (202) 2267 8885 Tel: (202) 2350 5445 Mobile: (20122) 4456 411 Email: eyad99@hotmail.com

NAME	TITLE & ADDRESS
Mr. Salah Eldin Abo Alhamd Atito	Admin Director for Cairo ACC National Air Navigation Services Company Cairo International Airport Cairo Airport Road Cairo - EGYPT Fax: (202) 2267 8885 Tel: (202) 2350 5445 Mobile: (20106) 558 7600 Email: salahatito@hotmail.com
ISLAMIC REPUBLIC OF IRAN	
Mr. Ahmad Kaveh Firouz	Expert in Charge of ACC Training Dept Iran Airports Company Mehrabad International Airport P.O. Box 13445 Tehran - ISLAMIC REPUBLIC OF IRAN Fax: (9821) 4454 4114 Tel: (9821) 6602 4120 Mobile: (98912) 323 0447 Email: ahmadkavehfirouz@gmail.com
Mr. Javad Pashaei	Deputy Director of ATS Iran Airports Company Mehrabad International Airport P.O. Box 13445 Tehran - ISLAMIC REPUBLIC OF IRAN Fax: (9821) 4454 4102 Tel: (9821) 4454 4103 Mobile: (98912) 502 3733 Email: ja_pashaei@yahoo.com
JORDAN	
Mr. Khalaf Al-Showbki	Chief Amman TACC Civil Aviation Regulatory Commission P.O.Box 7547 Amman - JORDAN Fax: (962-6) 4451 619 Tel: (962-6) 4451 672 Mobile: (962-77) 790 4724 Email: kshowbki@yahoo.co.nz
Mr. Khalil Mohamed Ali Younis	Chief of Operations Civil Aviation Regulatory Commission P.O. Box 7547 Amman - JORDAN Fax: (962-6) 489 1653 Tel: (962-6) 647 9120 Mobile: (962-77) 771 5125 Email: pans_ops@carc.gov.jo

NAME	TITLE & ADDRESS
Mr. Nayef Irshaid Al Marshoud	Director of ATM Civil Aviation Regulatory Commission P.O. Box 7547 Amman - JORDAN Fax: (962-6) 489 1266 Tel: (962-6) 489 7729 Mobile: (962-7) 77789470 Email: datm@carc.gov.jo
Mr. Majed Khaled Al Malkawi	Chief of ATC Royal Jordanian Air Force MARKA Amman, JORDAN Fax: (962-2) 487 4121 Tel: (962-2) 750 5257 Mobile: (962-7) 9520 2658 Email: majed26721@.hotmail.com
Mr. Suleiman Al Khalafat	Navigator Chief of Navigation Branch Royal Jordanian Air Force Amman - JORDAN Fax: (962-6) 487 4121 Mobile: (962-7) 799 827 364 Email: opsnavig@rjaf.mil.jo
Mr. Azmi Al Abbadi	Tactical Controller Royal Jordanian Air Force Marka Amman - JORDAN Fax: (962-6) 489 4902 Mobile: (962-7) 9905 5997 Email: alhareth1999@yahoo.com
OMAN	
Mr. Sabri Al Busaidy	Chief of Standard and Airspace Civil Aviation Affairs Muscat International Airport P.O. Box 1 CPO Seeb Muscat - SULTANATE OF OMAN Fax: (968-2) 4519 939 Tel: (968-2) 4519 501 Mobile: (968) 9935 9415 Email: sabri@caa.gov.om

NAME	TITLE & ADDRESS		
Mr. Said Ben Sulaiman El Kayoumi	Air Traffic Control Officer & Examiner Civil Aviation Affairs Muscat International Airport P.O.Box 1 - Code 111 Muscat - SULTANATE OF OMAN Fax: (968-2) 519939 Tel: (968) 95202851 Mobile: (968) 95202851 Email: sskiyumi@hotmail.com		
SAUDI ARABIA			
Mr. Abdulrahman Rajab Alnemari	Senior Operation Specialist General Authority of Civil Aviation (GACA) P.O.Box 12089 Riyadh, 11473 KINGDOM OF SAUDI ARABIA Fax: (966-1) 2211194 Tel: (966-1) 2211122/26 Mobile: (966-50) 5498214 Email: aalnemari@yahoo.com		
Mr. Khalid B. Al Barakati	Air Traffic Controller (ATC) General Authority of Civil Aviation (GACA) Operation and Planning P.O.Box 15441 Jeddah 21444 KINGDOM OF SAUDI ARABIA Fax: (966-2) 671 7717 Ext 1807 Tel: (966-2) 640 5000 Ext 1808 Mobile: (966-50) 337 3395 Email: Khalid_b_n@hotmail.com		
Mr. Mohammed Mubairik Al-Ghanmi	A.T.C. Operation Manager General Authority of Civil Aviation (GACA) P.O.Box 6326 Jeddah 21442 KINGDOM OF SAUDI ARABIA Fax: (966-2) 6855768 Tel: (966-2) 685 5017 Mobile: (966-50) 4605501 Email: atcghanmi@hotmail.com		
Mr. Abdul Aziz Zarra	International Relationship Coordinator Specialist General Authority of Civil Aviation (GACA) P.O.Box 929 Jeddah 21442 KINGDOM OF SAUDI ARABIA Fax: (966-2) 640 1477 Tel: (966-2)640 5000 Mobile: (966) 504 60 9006 Email: azarra@gaca.gov.sa		

NAME	TITLE & ADDRESS
UNITED ARAB EMIRATES	
Mr. Talal Hussain Al Hammadi	Head Airspace Coordinator General Civil Aviation Authority P.O.Box 666 Abu Dhabi UNITED ARAB EMIRATES Fax: (971-2) 599 6883 Tel: (971-2) 599 6890 Mobile: (971-50) 818 0783 Email: thammadi@szc.gcaa.ae
ORGANIZATIONS/INDUSTRIES	
CANSO	
Mr. Mahmoud Husni Hamed Ghaben	Chief of ATM Training Civil Aviation Regularty Commission P.O.Box 7547 Amman 11110 - JORDAN Fax: (962-6) 489 1266 Tel: (962-6) 489 2282 Ext 3242 Mobile: (962) 77 9810 429 Email: atmtrg@carc.gov.jo
IACA	
Mr. Manfred Strierath	Co-Chairman Committee on ATM and Flight Operations, IACA ATC Coordination Air Berlin Flughafen, Halle 8 40474 Düsseldorf GERMANY Fax: (49-211) 9418 979 Tel: (49-211) 9418 896 Mobile: (49-178) 9418 896 Email: manfred.strierath@airberlin.com
ΙΑΤΑ	
Mr. Achim Baumann	Director SO&I IATA, MENA King Abdallah II Street P.O.Box 940587 Amman 11194, JORDAN Fax: (962-6) 593 9912 Tel: (962-6) 580 4256 Mobile: (962-79) 704 5556 Email: baumanna@iata.org

NAME	TITLE & ADDRESS
Mr. Peter J. Raw	Manager ATM & Flight Planning Solutions Etihad Airways New Airport Road P.O. Box 35566 Abu Dhabi-United Arab Emirates Fax: (971-2) 575 8225 Tel: (971-2) 511 2258 Mobile: (971-50) 811 8348 Email: praw@etihad.ae
MID RMA	
Mr. Fareed Abdullah Al Alawi	Head, Air Traffic Operation Civil Aviation Affairs P.O. Box 586 KINGDOM OF BAHRAIN Fax: (973) 17 329 966 Tel: (973) 17 321 158 Mobile: (973) 39 651 596 Email: falalawi@caa.gov.bh
Mr. Fathi Ibrahim Al-Thawadi	MIDRMA Officer (MIDRMA) P.O. Box 50468 KINGDOM OF BAHRAIN Fax: (973) 19 329 956 Tel: (973) 17 329 054 Mobile: (973) 39 676 614 Email: midrma@midrma.com

- END -