INTERNATIONAL CIVIL AVIATION ORGANIZATION

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

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

ARN TF/6

(Cairo, Egypt, 22 – 24 April 2013)

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

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PART I – HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The sixth meeting of Air Traffic Services Route Network Task force (ARN TF/6) was held at the Meeting Room of the ICAO Middle East Regional Office in Cairo, Egypt, from 22 to 24 April 2013.

2. OPENING

2.1 The Meeting was opened by Mr. Mohamed R. M. Khonji, ICAO Regional Director, Middle East Office, Cairo, who welcomed the participants to Cairo and wished them a successful and fruitful meeting. He highlighted that the continuing growth of traffic in the MID Region places increased demand on airspace capacity and emphasizes the need for the optimum utilization of the available airspace and airports. In this regard, the ARN Task Force responsibility amongst other activities is to ensure the accommodation of the traffic growth in a safe, expeditious and orderly manner. Accordingly, the ARN TF/6 meeting will review and update the Table 1 (ATS routes) of the MID Region Basic Air Navigation Plan; in addition to the ATS Route Catalogue which includes 77 route proposals.

2.2 Mr. Khonji re-iterated that Continuous Climb Operation (CCO), Continuous Descent Operation (CDO), PBN implementation and Civil/Military Cooperation are ICAO priorities for the near future. In this regard, he encouraged all the MID Region States to bring along their military people to such meetings; and to enhance the coordination process with their military authorities in order to apply the Flexible Use of Airspace concept, which will contribute in the implementation of many postponed ATS Routes due military restrictions. Mr. Khonji recommended that further coordination is to be conducted between the Military authorities of neighbouring States which will allow a seamless path through the several airspaces within the Region and will assist in many issues for the airspace users, air navigation service providers, and the regulator which will also have a good impact on the environment.

2.3 Mr. Khonji outlined that the meeting will also discuss the agenda items as per the invitation letter, particular attention will be given to the need for improvement of the ATS route network and the follow up on the Contingency Planning in the MID Region. He also applauded the States and International Organisations that have produced working papers and presentations for this meeting. He encouraged the MID States to actively participate in the meetings by sharing their development experiences through the presentation of working and/ or information papers.

2.4 In closing, Mr. Khonji emphasized that an extensive exchange of views, in a constructive spirit, should strengthen the safe and timely implementation of the ATS routes in the MID Region. In this regard, the continued commitment and collaboration from all concerned, will improve the ATS route structure of the region.

3. ATTENDANCE

3.1 The meeting was attended by a total of Thirty Six (36) participants, including experts from ten (10) States (Bahrain, Egypt, Iran, Iraq, Jordan, Oman, Qatar, Saudi Arabia, Sudan and United Arab Emirates) and (4) four International Organizations/Industries (CANSO, Eurocontrol, 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, ATM Director, Civil Aviation Regulatory Commission (CARC), Jordan. Mr. Elie El Khoury, Regional Officer ATM/SAR was the Secretary of 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 Agenda
Agenda Item 2:	Follow-up on MIDANPIRG Conclusions and Decisions relevant to ATS Route Network
Agenda Item 3:	Review ATS Route Network
Agenda Item 4:	Contingency Planning
Agenda Item 5:	Future Work Programme
Agenda Item 6:	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

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

8. LIST OF CONCLUSIONS AND DECISIONS

DRAFT CONCLUSION 6/1:	*PROPOSAL FOR AMENDMENT TO THE MID BASIC ANP ATS-1 TABLE*
DRAFT CONCLUSION 6/2:	*PRIORITIZATION OF THE ATS ROUTES THAT ARE NOT ECONOMICALLY STRUCTURED WITHIN THE MID REGION*
DRAFT CONCLUSION 6/3:	*SPECIAL BAGHDAD FIR COORDINATION MEETING*
DRAFT CONCLUSION 6/4:	*MID REGIONAL CONTINGENCY PLAN*

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.

ARN TF/6
Report on Agenda Item 2

REPORT ON AGENDA ITEM 2: FOLLOW-UP ON MIDANPIRG CONCLUSIONS AND DECISIONS RELEVANT TO ATS ROUTE NETWORK

2.1 The meeting noted the status of relevant MIDANPIRG/13 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/6
Appendix 2A to the Report on Agenda Item 2

MIDANPIRG Conclusions and Decisions pertinent to the work of the ARN Task Force for consideration by the ARN TF/6 meeting

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 13/3: 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) 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) States and Users; provide feedback to the ARN TF/6 meeting	Implement the Conclusion	ICAO States Users	State Letter	Sep. 2012	On going AN 6/5.8 - 12/164 dated 12 June 2012
CONCLUSION 13/4: MIDRAR PROJECT That States, be invited to support the MIDRAR Project and assign Focal Points to provide necessary information to the MIDRAR Team	Implement the Conclusion	ICAO States	State Letter	30 Aug. 2012	On going AN 6/5.8.3 – 12/167 dated 12 June 2012
CONCLUSION 13/5: IMPLEMENTATION OF REDUCED RADAR LONGITUDINAL SEPARATION IN THE MID REGION That, a) States, that have not yet done so; i) be urged to implement the 20 NM radar longitudinal separation;	Implement the Conclusion	ICAO States	State Letter	30 Aug. 2012	Ongoing AN 6/3 – 12/165 dated 12 June 2012 Feedback

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
ii) be encouraged to further reduce the radar longitudinal separation within the MID Region to 10 NM, where appropriate; and iii) be invited to agree with their neighbouring FIRs/States on the date of implementation and updating of the LoAs; b) the ATM Regional PFFs be updated to include the reduced radar longitudinal separation as an ATM objective for the MID Region.					received from States
CONCLUSION 13/9: MID REGIONAL CONTINGENCY PLAN That, States and users be urged to review the MID Regional Contingency Plan and the revised version of the CRAME-03 at **Appendices 4.2E and 4.2F** to the Report on Agenda Item 4.2, respectively; and provide updates and comments to the ICAO MID Regional Office before **1 September 2012**.	Implement the Conclusion	States ICAO	State Letter	Sep. 2012	Ongoing AN 6/1.2.1 – 12/166 dated 12 June 2012 CRAME III contact list Updated
CONCLUSION 13/10: POST RVSM IMPLEMENTATION IN THE BAGHDAD FIR That, a) Iraq be urged to implement the actions agreed by the BFPRI-SCM in an expeditious manner to solve the ATC coordination, communication and surveillance issues between Baghdad ACC and the neighbouring ACCs; b) States and all stakeholders be invited to support Iraq in the process of normalization of the Baghdad FIR; and c) in case of low progress of implementation of the necessary actions by Iraq before **15 October 2012**, the RVSM operations be suspended in the Baghdad FIR.	Implement the Conclusion	ICAO States/Stakeholders Iraq	State Letter Provide support Implement the Action Plan	15 Jun. 2012 15 Oct. 2012 15 Oct. 2012	Ongoing AN 6/5.10.15B-12/172 dated 13 June 2012 Iraq letter dated 23 Sep. 2012 AN 6/5.10.15D-12/318 dated 23 Oct. 2012 Iraq Letter dated 11 Feb 2013 Updated Action Plan 22 April 2013

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 13/33: STATE ACTION PLANS FOR CO_2 EMISSION That, States, that have not yet done so, be urged to: a) send the contact details of their CO_2 emission focal point to the ICAO MID Regional Office; and b) submit their action plan for CO_2 emission to ICAO before 30 June 2012.	Implement the Conclusion	States	Action Plan	30 Jun. 2012	Ongoing
DECISION 13/34: ESTABLISHMENT OF THE AIR TRAFFIC MANAGEMENT MEASUREMENT TASK FORCE (ATMM TF) That, the ATMM TF be established with Terms of Reference (TOR) as at **Appendix4.5J** to the Report on Agenda Item 4.5.	Convene the ATMM TF/1 meeting	MIDANPIRG/13	ATMM TF established	Apr. 2012	Completed First meeting (8-9 September 2013)
CONCLUSION 13/35: ESTIMATING ENVIRONMENT BENEFITS That, in order to allow the Air Traffic Management Measurement Task Force **(**ATMM TF) and the CNS/ATM/IC SG to follow-up the implementation of the ATM operational improvements and estimate the fuel savings accrued from the corresponding improvements on regional basis a) States be urged to: i) use IFSET or a more advanced model/measurement capability available to estimate environment benefits accrued from operational improvements; ii) send the IFSET reports/the accrued environmental benefits to ICAO MID Regional office on a bi-annual basis. b) IATA to: i) encourage users to support the programme; and ii) consolidate users' inputs and report the accrued environmental benefits to ICAO MID Regional office on a bi-annual basis.	Implement the Conclusion	ICAO States/Users ATMM TF and CNS/ATM/IC SG	State Letter Feedback (IFSET reports) Reports of meetings	Dec. 2012 2013	AN 6/15 – 13/028 dated 20 Jan 2013 First meeting (8-9 September 2013)

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 13/47: MID REGIONAL PBN IMPLEMENTATION STRATEGY AND PLAN That, the MID Regional PBN Implementation Strategy and Plan be updated as at **Appendix4.5T** to the Report on Agenda Item 4.5.	Implement the Strategy	MIDANPIRG/13	Strategy	Apr. 2012	Completed
DECISION 13/48: ESTABLISHMENT OF MID PBN SUPPORT TEAM (MPST) That, MPST be established with TOR as at **Appendix 4.5U** to the Report on Agenda Item 4.5**.**	Implement Decision	MIDANPIRG/13	MPST established	Apr. 2012	Completed
CONCLUSION 13/49: MID PBN SUPPORT TEAM (MPST) That, a) ICAO MID Regional Office provide the leadership for MPST; b) UAE be the champion for the MPST; c) IATA fully commit and support the MPST; and d) States assign members to MPST and allocate necessary resources	Implement the Conclusion	ICAO States UAE IATA	State Letter MPST Visit	Sep. 2012	Coordination done via email with IATA and details on MPST was sent to Egypt and Jordan
CONCLUSION 13/50: PBN IMPLEMENTATION PROGRESS REPORT That, for future reporting on the status of PBN implementation, States be urged to: a) use the excel sheet as at **Appendix 4.5X** to the Report on Agenda Item 4.5, and PBN Implementation Progress Report Template as at **Appendix 4.5Y** to the Report on Agenda Item 4.5; and b) submit progress reports to ICAO MID Regional Office every six months and whenever major progress is achieved.	Implement the Conclusion	States	Progress Report	Every 6 months	Actioned AN 6/28-12/211 dated 11 Jul. 20112

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION13/61: CENTRALIZED AIR NAVIGATION DEFICIENCY DATABASE That, States and international organizations be invited to: a) test the centralized air navigation deficiency database on iSTARS platform using the guidance in Appendix 5.1A to the Report on Agenda Item 5.1; b) update the data as necessary in coordination with the ICAO MID Regional Office; and c) provide feedback to the ICAO MID Regional Office by 31 August 2012	Implement the Conclusion	ICAO States	State Letter Feedback	30 Jun. 2012 31 Aug. 2013	Ongoing AN 2/2 – 12/189 dated 21 Jun.2012
CONCLUSION 13/63: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION That, States be urged to: a) review their respective lists of identified deficiencies, develop associated Corrective Action Plans and forward them to the ICAO MID Regional Office prior to 15 June 2012; and b) use the ICAO MID Air Navigation Deficiency Database (MANDD) for submitting online requests for addition, update, and elimination of air navigation deficiencies, until the official launch of the Centralized Air Navigation Deficiency Database on iSTARS.	Implement the Conclusion	ICAO States	State Letter CAP and necessary updates	15 Jun. 2012	Ongoing AN 2/2 – 12/189 dated 21 June 2012

REPORT ON AGENDA ITEM 3: REVIEW ATS ROUTE NETWORK

3.1 The meeting was apprised of the outcome of the Twelfth Air Navigation Conference (AN-Conf/12), held in Montréal from 19 to 30 November 2012, related to Civil/Military Coordination/Cooperation and Flexible Use of the Airspace (FUA).

3.2 The meeting recalled that the DGCA-MID/1 Meeting recognized the need for rationalization of the ATS routes in the MID 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.

3.3 The meeting noted with concern that a number of States are still implementing changes to the Regional ATS Route Network without complying with the established procedures for the amendment of the MID Basic Air Navigation Plan (ANP).

3.4 The meeting reiterated that some MID States did not update their AIPs to change RNP 5 to RNAV 5, in addition the RNAV 5 area in the MID Region is still being implemented with different base Flight Levels (FL150, FL195, FL245, FL280, etc.). Accordingly, the meeting agreed that the ICAO MID Regional Office continue the follow-up with concerned States.

3.5 The meeting noted with appreciation the ongoing process for the implementation of seven (7) RNAV 1 Routes in Bahrain and Emirates Flight Information Regions (FIRs). The main operational enhancements resulting from the implementation of these RNAV1 Routes were highlighted as follows:

a. greater acceptance rate of traffic from the U.A.E. into the Bahrain FIR;

b. greater traffic segregation at the Bahrain/U.A.E. FIR boundary according to the flight planned routes;

c. simplified route clearances issued to aircraft according to the planned route;

d. less requirement for controller intervention to enable aircraft to reach cruising levels as aircraft cross FIR boundaries; and

e. accommodation of the Regional traffic foreseen growth.

3.6 The meeting recognized that enhancing ATM operations requires close coordination and collaboration between States and relevant organisations. Airspace efficiency or inefficiency in a portion of airspace affects the ATM operations in the rest of the region and creates various bottlenecks in other FIRs.

3.7 The meeting reviewed and updated the MID Basic ANP Table ATS 1, as at **Appendix 3A** to the Report on Agenda Item 3. Accordingly, the meeting agreed that the ICAO MID Regional Office process a proposal for amendment of the MID basic ANP, in accordance with ICAO established amendment procedures.

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

DRAFT CONCLUSION 6/1: PROPOSAL FOR AMENDMENT TO THE MID BASIC ANP TABLE ATS 1

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

3.9 The meeting reviewed and updated the information contained in the MID ATS Route Catalogue.

3.10 It was highlighted that the ATS Route Catalogue was created to include route proposals that are not included in the MID Basic ANP, requiring further consideration and coordination for their implementation. The process of updating is becoming more and more complicated due to the significant increase of Route Catalogue proposals. In this regard, the meeting recognized the need for the change of the process of maintaining the Catalogue up-to-date. Accordingly, it was underlined that the Catalogue should be a dynamic document, reflecting the inputs from all concerned in a timely manner.

3.11 The importance of the rationalisation of the use of existing like-sounding 5LNCs in close geographical location was highlighted. In this respect, on the ATS route R652, two 5LNCs, with like-sounding were identified, i.e.: OVANO and IVANO. The two 5LNCs are located in Jeddah FIR and Baghdad FIR separated by 367.6 NM. Accordingly, the meeting agreed that the ICAO MID Regional Office follow up with concerned States to alleviate this issue by replacing one of the above mentioned 5LNCs.

3.12 Furthermore, the meeting discussed the possibility of introducing a new approach to improve the ATS route structure in the MID Region in accordance with MIDANPIRG/13 Conclusion 13/3:

CONCLUSION 13/3: 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) 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) *States and Users; provide feedback to the ARN TF/6 meeting.*

3.13 The meeting agreed that as a first step in the implementation of MIDANPIRG/13 Conclusion 13/3, ICAO, States and Users should identify top 20 proposals of ATS Routes extracted from the ATS Route Catalogue. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 6/2: PRIORITISATION OF THE ATS ROUTES THAT ARE NOT ECONOMICALLY STRUCTURED WITHIN THE MID REGION

That, States and users

a) define top 20 proposals list of the routes that are not economically structured, extracted from the ATS Route Catalogue; and

b) provide feedback to the ATM/AIM/SAR SG/13 on the priority of action to implement the identified routes taking into consideration the major traffic flows in the MID Region, the definition of City Pairs, the PBN and FUA concepts.

3.14 Based on the above, the meeting agreed that the Catalogue will be split into two Parts. The first Part will contain the Top 20 routes and the second part will contain the rest of the proposed routes. In order to improve the mechanism of updating the catalogue, the meeting agreed that it should be posted on the ICAO MID Regional Office website.

3.15 In the same vein, the meeting noted that further developments are required for additional reduction of flying distance and improvement of flight efficiency within the ICAO MID Region. In this regards the meeting noted with appreciation the contribution of Eurocontrol to the meeting with the notable working paper and the power point presentations. Moreover, the meeting agreed to consider the proposals 1, 2 and 3 presented by Eurocontrol as at **Appendix 3C** to the Report on Agenda Item 3, to be included in the Top 20 List, as an application of the MIDANPIRG/13 Conclusion 13/3.

3.16 The meeting was apprised of Bahrain proposal to relief the traffic congestion north of Bahrain FIR; it was underlined the efforts of Qatar and Saudi Arabia with their relevant authorities to extend the opening hours of airways UM430 all the way to Doha and UL681 from 1900-0300 to 1500-0300 UTC. Furthermore, the meeting noted with appreciation the cooperation of the military authorities in releasing the area before the published opening time, and requested States to officially publish the new extended time, which will allow users to consider these routes during their flight planning process.

3.17 The meeting also encouraged the concerned States to implement the new RNAV-1 route SALWA-DHA on H24 basis.

3.18 The meeting was apprised of the outcome of the fourth Special Coordination Meeting on the return of Libyan Airspace to Libya (SCM-Libya/4) that was held in Malta, 27 March 2013. It was highlighted the proposal to implement the route segment DBA-AMIBO, in order to accommodate the Europe-Middle East extra flow of traffic resulting from the circumnavigation of the Syrian airspace.

3.19 The meeting was informed that Egypt is planning to implement the following route segments in Cairo FIR:

1) NWB – ARH
2) ARH – RASDA
3) NWB – KITOT (bi-direction): NOTAM 0138/13 issued effective 23 April 2013 for traffic above FL350
4) 9 NM on Radial 186^{o} TBA (on UL550) DCT METSA

3.20 The meeting was further apprised of the outcome of the Side Meeting on Baghdad FIR Normalization and associated issues; that was held at ICAO MID Regional Office, Cairo, Egypt, 22 April 2013. The meeting noted with appreciation that good progress had been achieved; especially with regards to the Communication, Navigation and Surveillance (CNS) infrastructure in Iraq.

3.21 The meeting noted the Iraq concerns regarding the ATS Route UP975, it was highlighted that the aim of implementing the UP975 was to provide an additional southbound route as an alternative to UM688 and to implement two parallel ATS Routes from Ankara through Kuwait to the Gulf. However, due to military restrictions, Kuwait was unable to establish a second entry point north of Kuwait FIR, which forced Iraq to connect the UP975 to UM688 at point UKMUG.

3.22 Based on the above, and in order to relieve the congestion in Baghdad FIR, Iraq presented four proposals for the realignment of UP975 for discussion. The meeting considered the proposals number (2) and (3) as feasible and agreed that further evaluations and scenarios/options are required to reach a common agreement with all concerned parties.

3.23 The meeting noted with appreciation that Iraq will reduce the traffic restriction over SIDNA and NINVA from 25 to 30 aircraft per hour, by replacing the NOTAM issued earlier, before 29 April 2013.

3.24 Based on all of the foregoing, the meeting extended its gratitude to Iraq for their willingness and readiness to continue on the same pace for improving the air navigation system in Baghdad FIR. Accordingly the meeting agreed to the following:

a) UP975 will remain as published in the MID Basic ANP, until an agreement with all concerned is reached for its realignment;

b) Iraq and other concerned states to explore further the scenarios/options for the realignment of UP975 between Baghdad FIR and Kuwait FIR, including the possibility of RNAV 1 implementation.

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

DRAFT CONCLUSION 6/3: SPECIAL BAGHDAD FIR COORDINATION MEETING

That, ICAO MID Regional Office coordinates with Iraq, the neighboring States and the concerned organisations, the convening of another Special Baghdad FIR Coordination meeting in the third quarter of 2013.

3.26 The meeting was apprised of the progress and activities of the Middle East Regional Airspace Review (MIDRAR) initiative, which was planned in three phases:

- Phase 1 - Review of the existing situation, identification of high level challenges and outlining a framework to overcome the challenges.
- Phase 2 - Implementation of Phase 1 activities.
- Phase 3 - Strategic plan to prepare the region for future challenges.

3.27 Phase 1 identified the key challenges affecting the region. It was expected that specific opportunities would be developed to address individual challenges. However, having identified and prioritised the challenges, it was clear that most were inter-related and that effort to address one would also have an impact on another. As a result, the potential opportunities were combined and developed into a number of MIDRAR initiatives:

- Initiative 1: Capacity initiative 'Provide capacity south of the Qatar Peninsular'
- Initiative 2: Increased utilization of the 'Western Gulf'
- Initiative 3: Increase access to North-Eastern FIRs
- Initiative 4: FIR Harmonization
- Initiative 5: Management oversight

3.28 It was highlighted that discussion on MIDRAR phase 2 is currently beyond the prevue of the ARN TF; in particular the establishment of a fulltime Programme Management Office (PMO). The meeting agreed that MIDRAR phase 2 should be addressed to the second meeting of the Directors General of Civil Aviation Middle East Region (DGCA MID/2) that will be held in Saudi Arabia, 20-22 May 2013.

3.29 Besides, in order to support the outcome of the MIDRAR Phase 1, the meeting agreed that the MIDRAR report should be sent to all the participants, for review and comments, and that CANSO will present the results to the DGCA MID/2 meeting and will provide updates on MIDRAR activities to the ARN TF future meetings.

3.30 The meeting emphasized that for the time being the MIDRAR is still considered as a regional initiative until the DGCA MID/2 meeting support the project.

3.31 The meeting was presented by IATA the possibility to introduce in the MID Region the concept of dynamic and flexible Air Traffic Management (ATM), which states that routes need not be fixed to pre-determined waypoints, except where required for control purposes. It is aimed at organizing the airspace in a collaborative manner involving all stakeholders so that airspace is managed to accommodate user-defined flexible routings. Accordingly, the meeting agreed to defer the discussion to future meetings.

3.32 The meeting reviewed and updated the deficiencies in the ATS route network as at **Appendix 3D** to the Report on Agenda Item 3.

ARN TF/6
Appendix 3A to the Report on Agenda Item 3

TABLE ATS 1 – ATS ROUTES
TABLEAU ATS 1 – ROUTES ATS
TABLA ATS 1 – RUTAS ATS

EXPLANATION OF THE TABLE

Column

1 *Designator of ATS route.*

2 *Significant points defining the ATS routes. Only prominent locations have been listed. Additional points where facilities are provided to complete navigational guidance along a route, but not otherwise marking significant characteristics of the route (change of heading of centre line, intersection with other routes, etc.) have normally not been included. Locations shown in parentheses indicate significant points outside the Region.*

Note 1. *Not representing the operator's requirements. Operator's required route and/or navaids are shown in square brackets ([ ]).*

Note 2. *Subject to further study. Including the associated navigation aid coverage.*

Note 3 *Subject to military agreement.*

Note 4. *Not acceptable at present.*

Note 5. *At present, implementation possible only during specific periods (e.g. weekends, nights, etc., as published).*

Note 6. *At present, implementation of the RNAV route only possible above FL 300, or as published.*

Note 7. *Unidirectional use.*

Note 8. *For ATS route or part thereof is RNAV 1*

Whenever reference to name States is made in Table ATS 1 in connection with the above notes, the following abbreviations, based on those indicated in Location Indicators (Doc 7910), are used:

HE	Egypt	OL	Lebanon
HL	Libyan Arab Jamahiriya	OM	United Arab Emirates
HS	Sudan	OO	Oman
OB	Bahrain	OR	Iraq
OE	Saudi Arabia	OS	Syrian Arab Republic
OI	Iran, Islamic Republic of	OT	Qatar
OJ	Jordan	OY	Yemen
OK	Kuwait		

A1	METRU 340000N 0250900E SOKAL 323601N 0273706E KATEX 320701N 0282436E BOPED 312939N 0292655E ALEXANDRIA (~~AXD~~ NOZ) 311113N 0295701E MENKU 310531N 0301806E CAIRO (CVO) 300532N 0312318E	UA1	METRU 340000N 0250900E SOKAL 323601N 0273706E KATEX 320701N 0282436E BOPED 312939N 0292655E ALEXANDRIA (~~AXD~~ NOZ) 311113N 0295701E MENKU 310531N 0301806E CAIRO (CVO) 300532N 0312318E
A16	RASDA 330600N 0305700E MELDO 320201N 03104406E BALTIM (BLT) 313144N 0311035E DEGDI 311429N 0311035E CAIRO (CVO) 300532N 0312318E	UA16	RASDA 330600N 0305700E MELDO 320201N 03104406E BALTIM (BLT) 313144N 0311035E DEGDI 311429N 0311035E CAIRO (CVO) 300532N 0312318E
A408	(ADDIS ABABA) GWZ SALEH 140000N 0420000E ORNIS 1416.2N04236.9E HODEIDAH 1446.4N 04259.2E	UA408	(ADDIS ABABA) GWZ SALEH 140000N 0420000E ORNIS 1416.2N04236.9E HODEIDAH 1446.4N 04259.2E
A411	BNINA (BNA) 3207~~.5~~28N 0201513E NASER 3151.2N 2355.3E LOSUL 314100N 250800E SIDI BARANI (BRN) 313532~~4.5~~N 260020~~.3~~E	UA411	BNINA (BNA) 3207~~.5~~28N 0201513E NASER 3151.2N 2355.3E LOSUL 314100N 250800E SIDI BARANI (BRN) 313532~~4.5~~N 260020~~.3~~E
A412	TANF (TAN) ZELAF 325656N 0371121E DAXEN 324444N 0374105E ASLON 321211N 0365111E NADEK 322728N 0371429E KUPRI 320825N 0364530E LUDAN 320256N 0363713E QAA 314423N 0360926E	UA412	TANF (TAN) ZELAF 325656N 0371121E DAXEN 324444N 0374105E ASLON 321211N 0365111E NADEK 322728N 0371429E KUPRI 320825N 0364530E LUDAN 320256N 0363713E QAA 314423N 0360926E
A416	TABRIZ (TBZ) ARDABIL (ARB) RASHT (RST) RAMSAR (RSR) NOSHAHR (NSR) DASHTE NAZ (DNZ) SABZEVAR (SBZ) MASHHAD (MSD) SOKAM 331316N 0603754E	UA416	TABRIZ (TBZ) ARDABIL (ARB) RASHT (RST) RAMSAR (RSR) NOSHAHR (NSR) DASHTE NAZ (DNZ) SABZEVAR (SBZ) MASHHAD (MSD) SOKAM 331316N 0603754E
A418	KUMUN 254000N 0551515E PAPAR 2640N 05427E * Note 7 Segment KUMUN-PAPAR (OI and OM) SHIRAZ (SYZ)	UA418	KUMUN 254000N 0551515E PAPAR 2640N 05427E * Note 7 Segment KUMUN-PAPAR (OI and OM) SHIRAZ (SYZ)
A422	UROMIYEH (UMH)	UA422	UROMIYEH (UMH)

	SETNA 3756.3N 04555.4E TABRIZ PARSABAD (PAD) PARSU 3937.8N 04804.8E KARAD 4014.3N 04929.5E (BAKU)		SETNA 3756.3N 04555.4E TABRIZ PARSABAD (PAD) PARSU 3937.8N 04804.8E KARAD 4014.3N 04929.5E (BAKU)
A424	LOVEK 322208N 04440 01E LOTAN 2959.7N 04338.8E RAFHA HAIL MADINAH (PMA) ASTOL 2255.0N 03935.2E KING ABDULAZIZ (JDW)	UA424	LOVEK 322208N 04440 01E LOTAN 2959.7N 04338.8E RAFHA HAIL MADINAH (PMA) ASTOL 2255.0N 03935.2E KING ABDULAZIZ (JDW)
A453	PIRAN 2934.1N 06128E ZAHEDAN (ZDN) BANDAR ABBAS (BND) GHESHM (KHM) BANDAR LENGEH (LEN) KISH (KIS) MIDSI 2641.7N05152E * Note 7 (MIDSI-BAH) *Note 8 (MIDSI-KUMBO) ~~TOBLI 262134N0512301E~~ ~~OTATA 261843N0510052E~~ BOTOB 263350N 0514505E SOLOB 262241N 0513132E BAHRAIN (BAH) ~~DVORDME~~ 261551N 0503856E RANLI 262509N 0503219E * Note 7 ~~(OB, OI)~~ to KUA ~~PEBOS 262722N0503043E~~ RULEX 264529N0501745E ALVUN 271028N0494455E SOLEM 275229N0491136E KUMBO 281705N0495526E GESAK 283430N 0484453E DEBTI 2844.1N 04829.4E KUWAIT (KUA) 2913.1N 04759.1E	UA453	PIRAN 2934N 06128E ZAHEDAN (ZDN) BANDAR ABBAS (BND) GHESHM (KHM) BANDAR LENGEH (LEN) KISH (KIS) MIDSI 2641.7N05152E * Note 7 (MIDSI-BAH) *Note 8 (MIDSI-KUMBO) ~~TOBLI 262134N0512301E~~ ~~OTATA 261843N0510052E~~ BOTOB 263350N 0514505E SOLOB 262241N 0513132E BAHRAIN (BAH) ~~DVORDME~~ 261551N 0503856E RANLI 262509N 0503219E * Note 7 ~~(OB, OI)~~ to KUA ~~PEBOS 262722N0503043E~~ RULEX 264529N0501745E ALVUN 271028N0494455E SOLEM 275229N0491136E KUMBO 281705N0495526E GESAK 283430N 0484453E DEBTI 2844.1N 04829.4E KUWAIT (KUA) 2913.1N 04759.1E
A454	(KC) 2454.6N 06710.6E BEGIM 2443.0N 06700.0E * Note 7 (OO, OP) MELOM 2505.0N 06632.0E PUNEL 2520.0N 06523.0E PARET 2527.2N 06451.5E TAPDO 242400N 0612000E VUSET 235540N 0590812E PASOV 243841N 0565037E	UA454	(KC) 2454.6N 06710.6E BEGIM 2443.0N 06700.0E * Note 7 (OO, OP) MELOM 2505.0N 06632.0E PUNEL 2520.0N 06523.0E PARET 2527.2N 06451.5E TAPDO 242400N 0612000E VUSET 235540N 0590812E PASOV 243841N 0565037E
A727	~~(~~PAXIS 3357.1N 02720.0E OTIKO 3134.3N 02936.6E ALEXANDRIA (~~AXD~~NOZ)	UA727	(PAXIS 3357.1N 02720.0E OTIKO 3134.3N 02936.6E ALEXANDRIA (~~AXD~~NOZ)

	MENKU 3105.5N 03018.1E CAIRO (CVO) LUXOR (LXR) ABU SIMBLE (SML) NUBAR 220000N 03118.1E MEROWE (MRW) KHARTOUM (KTM) KENANA (KNA) LODWAR (LOV) NAKURU (NAK) NAIROBI (NV) KILIMANJARO (KV)		MENKU 3105.5N 03018.1E CAIRO (CVO) LUXOR (LXR) ABU SIMBLE (SML) NUBAR 220000N 03118.1E MEROWE (MRW) KHARTOUM (KTM) KENANA (KNA) LODWAR (LOV) NAKURU (NAK) NAIROBI (NV) KILIMANJARO (KV)
		UA775	REXOD 211230N 0613830E TUMET 222307N 0595702E IMDEK 224647N 0592217E OBTIN 230216N 0585920E KUSRA 231726N 0585102E
A777	TONVO 250500N 0563200E BUBAS 245938N 05700 03E * Note 7 (OO) NADSO 244957N 0574926E MUNGA 242516N 0584533E MIXOL 240618N 0592739E VAXIM 231900N 0611100E		
A788	HALAIFAH HAIL HAFR AL BATIN (HFR) *Note 7 WAFRA 2837. 3N 04757. 5E PATIR 285606N 0492923E KHARK (KHG) SHIRAZ	UA788	HALAIFAH HAIL HAFR AL BATIN (HFR) *Note 7 WAFRA 2837. 3N 04757. 5E PATIR 285606N 0492923E KHARK (KHG) SHIRAZ
B12	TANSA 340000N 0264900E SOKAL 323601N 0273706E EL DABA (DBA) 310041N 0282801E KATAB 292501N 0290506E BOPOS 264318N 0300722E DEPNO 262438N 0301413E EL KHARGA (KHG) 252654N 0303527E ABU SIMBEL (SML) 222118N 0313719E	UB12	TANSA 340000N 0264900E SOKAL 323601N 0273706E EL DABA (DBA) 310041N 0282801E KATAB 292501N 0290506E BOPOS 264318N 0300722E DEPNO 262438N 0301413E EL KHARGA (KHG) 252654N 0303527E ABU SIMBEL (SML) 222118N 0313719E
B121	RUDESHUR (RUS) RASHT (RST) MAGRI 385408N 0462300E	UB121	RUDESHUR (RUS) RASHT (RST) MAGRI 385408N 0462300E
B400	MUSCAT (MCT)	UB400	MUSCAT (MCT)

	ITURA 232351N 0580720E IZKI (IZK) HAIMA (HAI) ASTUN 180832N0551040E DAXAM 171612N 0544715E MUTVA 165325N 0543201E IMKAD 155245N 0535147E NODMA 152603N 0533358E RIGAM 143932N 0530414E RAPDO 132317N 0521532E VEDET 120134N 0512410E (MOGADISHU)		ITURA 232351N 0580720E IZKI (IZK) HAIMA (HAI) ASTUN 180832N0551040E DAXAM 171612N 0544715E MUTVA 165325N 0543201E IMKAD 155245N 0535147E NODMA 152603N 0533358E RIGAM 143932N 0530414E RAPDO 132317N 0521532E VEDET 120134N 0512410E (MOGADISHU)
		UB403	MANDERA BOMIX 121002N 0502757E ODBEN 123747N 0505648E KAVAN 133250N 0515431E RIGAM 143932N 0530414E
B404	HARGA (HARGEISA) DEMGO 120258N 0483040E PURKA 131208N 0503042E GESIX 134440N 0512823E RIGAM 143932N 0530414E	UB404	HARGA (HARGEISA) DEMGO 120258N 0483040E PURKA 131208N 0503042E GESIX 134440N 0512823E RIGAM 143932N 0530414E
B407	KING ABDULAZIZ (JDW) KAROX 205717N 0381547E MAHDI 2026.0N 03739.3E (PORT SUDAN) PSD	UB407	KING ABDULAZIZ (JDW) KAROX 205717N 0381547E MAHDI 2026.0N 03739.3E (PORT SUDAN) PSD
B411	METSA 2930.0N 03500.0E AL SHIGAR (ASH) ARAR (AAR) MURIB 311337N 0415136E LOVEK 3222.1N 04440.0E NOLDO 3249.5N 04521.5E PAXAT 332056N 0460519E ILAM (ILM) KERMANSHAH(KMS) SAVEH (SAV) [TEHRAN] (TRN) * Note 1 DEHNAMAK (DHN) SABZEVAR (SBZ) MASHHAD (MSD)	UB411	METSA 2930.0N 03500.0E AL SHIGAR (ASH) ARAR (AAR) MURIB 311337N 0415136E LOVEK 3222.1N 04440.0E NOLDO 3249.5N 04521.5E PAXAT 332056N 0460519E ILAM (ILM) KERMANSHAH(KMS) SAVEH (SAV) [TEHRAN] (TRN) * Note 1 DEHNAMAK (DHN) SABZEVAR (SBZ) MASHHAD (MSD)
B412	HALAIFA (HLF) RABIGH (RBG) [KING ABDULAZIZ] (JDW)	UB412	HALAIFA (HLF) RABIGH (RBG) [KING ABDULAZIZ] (JDW)
B413	LADEN 1853.7N 03805.1E DANAK 1608.0N 04129.0E HODEIDAH TAIZ	UB413	LADEN 1853.7N 03805.1E DANAK 1608.0N 04129.0E HODEIDAH TAIZ

	ADEN ZIZAN 1151.6N 04539.2E AVIMO 0332.9N 05052.6E		ADEN ZIZAN 1151.6N 04539.2E AVIMO 0332.9N 05052.6E
B415	DOHA (DOH) * Note 8 (DOH-BUNDU) AFNAN 2508.9N 05155.9E BUNDU 2500.4N 05229.4E * Note 7 (BUNDU-ADV) GADVO 2441.4N 05343.0E KUNGU 2437.9N 05356.4E ABU DHABI ADV 2425.1N 05440.4E	UB415	DOHA (DOH) * Note 8 (DOH-BUNDU) AFNAN 2508.9N 05155.9E BUNDU 2500.4N 05229.4E * Note 7 (BUNDU-ADV) GADVO 2441.4N 05343.0E KUNGU 2437.9N 05356.4E ABU DHABI ADV 2425.1N 05440.4E
B416	KUWAIT (KUA) AMBIK 283222N 0492025E *Note 8 (AMBIK-KUVER) TESSO 282852N 0492723E GEVAL 283625N 0492722E GOGMA 281421N 0495612E KUVER 280924N 0500600E IMDAT 2741.0N 05111.0E ORSAR 2604.5N 05357.5E PEBAT 2551.9N 05423.9E DESDI 2536.0N 05442.5E	UB416	KUWAIT (KUA) AMBIK 283222N 0492025E *Note 8 (AMBIK-KUVER) TESSO 282852N 0492723E GEVAL 283625N 0492722E GOGMA 281421N 0495612E KUVER 280924N 0500600E IMDAT 2741.0N 05111.0E ORSAR 2604.5N 05357.5E PEBAT 2551.9N 05423.9E DESDI 2536.0N 05442.5E
B417	MAHSHAHR (MAH) TULAX 2938 53N 04903 01E DESLU 2928.0N 04901.8E ALVIX 2919.3N04824.2E KUWAIT (KUA) *See Note 3 HAFR AL BATIN (HFR) KMC GASSIM (GAS) BIR-DARB (BDB) TAGNA 231652N 0403851E KING ABDULAZIZ (JDW)	UB417	MAHSHAHR (MAH) TULAX 2938 53N 04903 01E DESLU 2928.0N 04901.8E ALVIX 2919.3N04824.2E KUWAIT (KUA) *See Note 3 HAFR AL BATIN (HFR) KMC GASSIM (GAS) BIR-DARB (BDB) TAGNA 231652N 0403851E KING ABDULAZIZ (JDW)
B419	(DHA) 261538N 0500824E *Note 8 (DHA-RAMSI) KING FAHD (KFA) *Note 7 (KFA-RAMSI) ASTOM 265552N 0500408E RAMSI 270249N 0500714E	UB419	(DHA) 261538N 0500824E *Note 8 (DHA-RAMSI) KING FAHD (KFA) *Note 7 (KFA-RAMSI) ASTOM 265552N 0500408E RAMSI 270249N 0500714E
B424	ITOLI 152825N 0450927E SABEL 185200N 05203.7E OTISA 201000N 0554556E GISKA 213503N 0574014E	UB424	ITOLI 152825N 0450927E SABEL 185200N 05203.7E OTISA 201000N 0554556E GISKA 213503N 0574014E

B441	MASHHAD (MSD) OTRUZ 363108N 0610956E MARAD 3637.6N 06127.8E	UB441	MASHHAD (MSD) OTRUZ 363108N 0610956E MARAD 3637.6N 06127.8E
B451	DEHNAMAK (DHN) BOJNORD (BRD) DOLOS 375006N 0580200E (ASHGABAT) (ASB	UB451	DEHNAMAK (DHN) BOJNORD (BRD) DOLOS 375006N 0580200E (ASHGABAT) (ASB
B457	~~ELOSA 254850N 0514233E~~ EMISA 254658N 0514207E *Note 8 (EMISA-COPPI) PATOM 255821N 0511836E ASNIX 260452N 0510509E BAHRAIN DVORDME(BAH) KING FAHAD DVORTAC(KFA) KODAG 270317N 0492023E DUSTA 271255N 0491337E TORSI 272335N 0490606E *Note 7 COPPI 275033.0N 0474359.0E ~~* Note7~~	UB457	~~ELOSA 254850N 0514233E~~ EMISA 254658N 0514207E *Note 8 (EMISA-COPPI) PATOM 255821N 0511836E ASNIX 260452N 0510509E BAHRAIN DVORDME(BAH) KING FAHAD DVORTAC(KFA) KODAG 270317N 0492023E DUSTA 271255N 0491337E TORSI 272335N 0490606E *Note 7 COPPI 275033.0N 0474359.0E ~~* Note7~~
B505	LALDO 251806N 0563600E * Note 7/8 (OO) NADSO 244957N 0574926E ITLOB 244325N 0590701E EGTAL 2434 58N 06037 24E APELO 2434.9N 0612000E PASNI (PI) 2517.3N 06320.9E		
B524	NADSO 244957N 0574926E * Note 7 DAMUM 243236N 0591307E VEKAN 241235N 0604454E ALPOR 2404 42N 06120E		
B526	(ASMARA) ASM HODEIDAH (HDH) MUKALLA (RIN) RIGAM 143932N 0530414E	UB526	(ASMARA) ASM HODEIDAH (HDH) MUKALLA (RIN) RIGAM 143932N 0530414E
B535	(DJIBOUTI) DTI ADEN (KRA) MUKALLA (RIN) KAPET 1633 22N 0530614E SALALAH (SLL) ASTUN 180832N0551040E	UB535	(DJIBOUTI) DTI ADEN (KRA) MUKALLA (RIN) KAPET 1633 22N 0530614E SALALAH (SLL) ASTUN 180832N0551040E
B538	ALEPPO KARIATAIN	UB538	ALEPPO KARIATAIN
B540	GERAR 240600N 0573616		

PASOV 243841N 0565037E
KUPMA 245148N 0562648E
BUBIN 245742N 0560642E

B544	(GAZIANTEP) GAZ ALEPPO (ALE) TANF (TAN) TURAIF (TRF) AL SHIGAR (ASH) HALAIFA (HLF) MADINAH (PMA) RABIGH (RBG) KING ABDULAZIZ (JDW) QUNFIDAH (QUN) ABHA (ABH) NOBSU KRA	UB544	(GAZIANTEP) GAZ ALEPPO (ALE) TANF (TAN) TURAIF (TRF) AL SHIGAR (ASH) HALAIFA (HLF) MADINAH (PMA) RABIGH (RBG) KING ABDULAZIZ (JDW) QUNFIDAH (QUN) ABHA (ABH) NOBSU KRA
B549	THAMUD 171700N 0495500E ITELI 171310N 0502605E GOGRI 170752N 0510857E TONRO 165850N 0522235E PUTRA 165432N 0525631E LADAR 165324N 0534655E MUTVA 165325N 0543201E KIVEL 165306N 0553633E	UB549	THAMUD 171700N 0495500E ITELI 171310N 0502605E GOGRI 170752N 0510857E TONRO 165850N 0522235E PUTRA 165432N 0525631E LADAR 165324N 0534655E MUTVA 165325N 0543201E KIVEL 165306N 0553633E
G183	(KAROL 3252.0N 03229.0E) PASOS EL ARISH (ARH) TABA (TBA)		
G202	(VELOX 3349.0N 03405.0E) SILKO 3347.9N 03435.0E KHALDEH (KAD) * Note 4 (OS) DAKWE 3338.9N 03555.0E DAMASCUS (DAM) TANF (TAN) MODIK 3328.1N 03901.0E RAPLU 3323.0N 04145.5E PUSTO 3321.0N 04245.0E DELMI 331918.31N 0431327.59E LAGLO 331538N 0441457E ITOVA 331950.91N 0444128.97E RAGET 3330.8N 04553.8E ILAM (ILM) KHORAM ABAD (KRD) ESFAHAN (ISN) NODLA BIRJAND (BJD) (KAMAR 3239.0N 06044.0E)	UG202	(VELOX 3349.0N 03405.0E) SILKO 3347.9N 03435.0E KHALDEH (KAD) * Note 4 (OS) DAKWE 3338.9N 03555.0E DAMASCUS (DAM) TANF (TAN) MODIK 3328.1N 03901.0E RAPLU 3323.0N 04145.5E PUSTO 3321.0N 04245.0E DELMI 331918.31N 0431327.59E LAGLO 331538N 0441457E ITOVA 331950.91N 0444128.97E RAGET 3330.8N 04553.8E ILAM (ILM) KHORAM ABAD (KRD) ESFAHAN (ISN) NODLA BIRJAND (BJD) (KAMAR 3239.0N 06044.0E)
G208	(PANJGUR) PG		

	KEBUD 2735.9N 06250.4E ZAHEDAN (ZDN) DARBAND (DAR) NODLA 325330N 0545850E ANARAK (ANK) TEHRAN (TRN) ZANJAN (ZAJ) UROMIYEH (UMH) ALRAM 3743.0N 04437.0E (SIIRT)		
G216	LAKLU 232235N 0570401E *Note 7 (OO/OP) Muscat (MCT) ITILA 234055N 0584817E SODEB 234747N 0593023E DORAB 235033N 0594746E ALPOR 240441N 0612000E LATEM (KC)	UG216	LAKLU 232235N 0570401E *Note 7 (OO/OP) Muscat (MCT) ITILA 234055N 0584817E SODEB 234747N 0593023E DORAB 235033N 0594746E ALPOR 240441N 0612000E LATEM (KC)
G452	SHIRAZ (SYZ) KERMAN (KER) ZAHEDAN (ZDN) DERBO 2925.7N 06117.0E (RAHIMYAR KHAN) RK	UG452	SHIRAZ (SYZ) KERMAN (KER) ZAHEDAN (ZDN) DERBO 2925.7N 06117.0E (RAHIMYAR KHAN) RK
G462	~~* Note 7 between ROVOS and BALUS~~ ~~BALUS 2545.9N 05304.4E~~ ROVOS 241825N 0552143E *Note 7 to ITROK NIBAX 245748N 0541437E RAGTA 250850N 0535840E ALSOK 252607N 0533904E ITROK 253557N 0532751E TUMAK 255031N 0531108E	UG462	~~* Note 7 between ROVOS and BALUS~~ ~~BALUS 2545.9N 05304.4E~~ ROVOS 241825N 0552143E *Note 7 to ITROK NIBAX 245748N 0541437E RAGTA 250850N 0535840E ALSOK 252607N 0533904E ITROK 253557N 0532751E TUMAK 255031N 0531108E
G650	KING ABDULAZIZ (JDW) RASKA 190732N 0390329E ASMARA (ASM)	UG650	KING ABDULAZIZ (JDW) RASKA 190732N 0390329E ASMARA (ASM)
G652	ADEN (KRA) IMPOS 183136N 0511848E DUDRI 190000N 0520000E *Note 8 (DUDRI-TOKRA) TOKRA 220925N 0553350E TAPDO 2424N 06120 E	UG652	ADEN (KRA) IMPOS 183136N 0511848E DUDRI 190000N 0520000E *Note 8 (DUDRI-TOKRA) TOKRA 220925N 0553350E TAPDO 2424N 06120 E
G660	(PORT SUDAN) PSD BOGUM 2006.6N 03803.0E MIPOL 203322N 0382145E KING ABDULAZIZ (JDW)	UG660	(PORT SUDAN) PSD BOGUM 2006.6N 03803.0E MIPOL 203322N 0382145E KING ABDULAZIZ (JDW)

G662	BUSRA 322000N 0363700E KUPRI 320825.87N 0364530.21E ALKOT 313254.22N 0371121.51E GRY 3124.8N 3717.2E AL SHIGAR (ASH) HAIL (HIL) GASSIM (GAS) KING KHALID (KIA)
G663	KING KHALID (KIA) *Note 7 (KIA-KFA) GIBUS 255724N 0472829E *Note 8 (GIBUS-ALSER) SILNO 2640.4N 04757.7E KING FAHD (KFA) ALSER 2710.8 05049.5E SHIRAZ (SYZ) YAZD (YZD) NODLA 3253.3N 05458.8E TABAS (TBS) MASHAD (MSD)
G665	ARAR (AAR) ABADAN (ABD) SHIRAZ (SYZ) * Note 5 (OI) NABOD 2816.1N 05825.8E LOXOL 2745.9N 06045.6E ASVIB 265724N 0631812E (PANJGUR) PG
G666	SHIRAZ (SYZ) LAMERD (LAM) LAVAN (LVA) * Note 7 (OI) ORSAR 2604 .5N 05357.5E ITITA 254410N 0541839E SINBI 250842N 0543741E ABU DHABI (ADV)
G667	PUTMA 3748.0N 05157.6E NOSHAHR (NSR) TEHRAN (TRN) SAVEH (SAV) MIS AHWAZ (AWZ) ABADAN (ABD) ALSAN 295707N 0481456E FALKA KUWAIT (KUA) WAFRA (KFR) *Note 7 (KFR-MGA)

UG662	BUSRA 322000N 0363700E KUPRI 320825.87N 0364530.21E ALKOT 313254.22N 0371121.51E GRY 3124.8N 3717.2E AL SHIGAR (ASH) HAIL (HIL) GASSIM (GAS) KING KHALID (KIA)
UG663	KING KHALID (KIA) *Note 7 (KIA-KFA) GIBUS 255724N 0472829E *Note 8 (GIBUS-ALSER) SILNO 2640.4N 04757.7E KING FAHD (KFA) ALSER 2710.8 05049.5E SHIRAZ (SYZ) YAZD (YZD) NODLA 3253.3N 05458.8E TABAS (TBS) MASHAD (MSD)
UG665	ARAR (AAR) ABADAN (ABD) SHIRAZ (SYZ) * Note 5 (OI) NABOD 2816.1N 05825.8E LOXOL 2745.9N 06045.6E ASVIB 265724N 0631812E (PANJGUR) PG
UG666	SHIRAZ (SYZ) LAMERD (LAM) LAVAN (LVA) * Note 7 (OI) ORSAR 2604 .5N 05357.5E ITITA 254410N 0541839E SINBI 250842N 0543741E ABU DHABI (ADV)
UG667	PUTMA 3748.0N 05157.6E NOSHAHR (NSR) TEHRAN (TRN) SAVEH (SAV) MIS AHWAZ (AWZ) ABADAN (ABD) ALSAN 295707N 0481456E FALKA KUWAIT (KUA) WAFRA (KFR) *Note 7 (KFR-MGA)

	COPPI 275033.0N 0474359.0E *Note 8 (COPPI-AVOBO) EMENI 273232N 0473849E MUSKO 272640N 0473708E ALSAT 270611N 0473118E LUGAL 264533N 0472528E MAGALA (MGA) AVOBO 260334N 0470719E KING KHALID (KIA) WADI AL DAWASIR (WDR) NEJRAN (NEJ) SANA'A (SAA) PARIM 123143N 0432712E DJIBOUTI (DTI)	COPPI 275033.0N 0474359.0E *Note 8 (COPPI-AVOBO) EMENI 273232N 0473849E MUSKO 272640N 0473708E ALSAT 270611N 0473118E LUGAL 264533N 0472528E MAGALA (MGA) AVOBO 260334N 0470719E KING KHALID (KIA) WADI AL DAWASIR (WDR) NEJRAN (NEJ) SANA'A (SAA) PARIM 123143N 0432712E DJIBOUTI (DTI)
G669	AL SHIGAR (ASH) AL JOU (AJF) RAFHA (RAF) NISER 2930.5N 04418.4E *Note 3 (OK) SOLAT 290942N 0463810E KUWAIT (KUA) SESRA 290803N 0485453E NANPI 290457N 0493157E KHARK(KHG) SHIRAZ (SYZ)	UG669 AL SHIGAR (ASH) AL JOU (AJF) RAFHA (RAF) NISER 2930.5N 04418.4E *Note 3 (OK) SOLAT 290942N 0463810E KUWAIT (KUA) SESRA 290803N 0485453E NANPI 290457N 0493157E KHARK(KHG) SHIRAZ (SYZ)
G670	RASHT (RST) LALDA 3817.1N 04943.0E (BAKU) GYD	UG670 RASHT (RST) LALDA 3817.1N 04943.0E (BAKU) GYD
G674	MADINAH (PMA) GASSIM (GAS) 2617.9N 04346.8E BOPAN (BPN)	UG674 MADINAH (PMA) GASSIM (GAS) 2617.9N 04346.8E BOPAN (BPN)
G775	(ASHGHABAT) (ASB) ORPAB 3742N 05834.5E MASHHAD (MSD) [BIRJAND] (BJD) * Note 1 ZAHEDAN (ZDN)	UG775 (ASHGHABAT) (ASB) ORPAB 3742N 05834.5E MASHHAD (MSD) [BIRJAND] (BJD) * Note 1 ZAHEDAN (ZDN)
G781	(VAN) BONAM 3802.9N 04418.0E UROMIYEH (UMH) ROVON 3716 01N 0455322E ZANJAN (ZAJ) NOSHAHR(NSR)	UG781 (VAN) BONAM 3802.9N 04418.0E UROMIYEH (UMH) ROVON 3716 01N 0455322E ZANJAN (ZAJ) NOSHAHR(NSR)

G782	KING ABDULAZIZ (JDW) DAFINAH (DFN) RAGA\HBA (RGB) KING KHALID (KIA) MAGALA (MGA) *Note 7 (MGA-KFR) LUGAL 264533N 0472528E WAFRA (KFR) 283715N 0475729E KUWAIT (KUA)
G783	PURDA 210805N 0510329E TANSU 224136N 0542828E RIGIL 230146N 0551430E ELUDA 235107N 0552905E ALN 241535N 0553623E GIDIS 243600N 055600E BUBIN 245742N 0560642E
G792	BODKA 3939.0N 05130.0E GIRUN 3806.2N 05620.3E BOJNORD (BRD) MASHAD (MSD)
G795	FALKA 2926.2N 04818.3E TASMI 300120N 0475505E BSR 303132.4N 0472112E RAFHA (RAF)
G799	PMA DAFINAH (DFN)
L126	PUSTO 3321.0N 04245.0E

UG782	KING ABDULAZIZ (JDW) DAFINAH (DFN) RAGA\HBA (RGB) KING KHALID (KIA) MAGALA (MGA) *Note 7 (MGA-KFR) LUGAL 264533N 0472528E WAFRA (KFR) 283715N 0475729E KUWAIT (KUA)
UG783	PURDA 210805N 0510329E TANSU 224136N 0542828E RIGIL 230146N 0551430E ELUDA 235107N 0552905E ALN 241535N 0553623E GIDIS 243600N 055600E BUBIN 245742N 0560642E
UG792	BODKA 3939.0N 05130.0E GIRUN 3806.2N 05620.3E BOJNORD (BRD) MASHAD (MSD)
UG795	FALKA 2926.2N 04818.3E TASMI 300120N 0475505E BSR 303132.4N 0472112E RAFHA (RAF)
UG799	PMA DAFINAH (DFN)
UL124	(VAN) BONAM URUMIYEH (UMH) ZANJAN (ZAJ) SAVEH (SAV) DISEL 332904N 0510118E YAZD (YZD) (R654) KERMAN (KER) KEBUD 273558N 0625028E (PANJGUR) PG
UL125	DULAV 3857N 04537.9E TABRIZ (TBZ) ZANJAN (ZAJ) PAROT 360940N 0495756E TEHRAN (TRN) ANARAK (ANK) DARBAND (DAR) ZAHEDAN (ZDN) DANIB 290706N 0611717E KEBUD 273558N 0625028E
UL126	PUSTO 3321.0N 04245.0E

	SOGUM 3412.2N 04354.9E SIGNI 3400.1N 04442.2E MIGMI 3345.9N 04527.4E ILAM (ILM)
L200	AMMAN LOXER 320256N 362500E LUDAN 320256N 0363713 E KUPRI 320825N 0364530 E ASLON 321211N 0365111E NADEK 322728N 0371429E DAXEN 324444N 0374105E KAREM 325110N 0380324 E KUMLO 325811N 0382807 E DAPUK 330139N 0384026 E PASIP 330600N 0385600E GIBUX 330715N 0411625E SIGBI 330200N 0422000E SILBO 325900N 0432900E
L223	SIRRI (SIR) NALTA 250242N 0553955E * Note 7 (OI-OM-OO) TARDI 243418N 0560915E LAKLU 232235N 05704 01E
L300	LUXOR (LXR) MEMPO 252518N 0335457E GIBAL2437.2N03634.7E YENBO (YEN) 2408.8N 03803.9E
L301	RASKI 230330N 0635200E VAXIM 231900N 0611100E RAGMA 232301N 0603846E
L305	DOHA (DOH) *Note 7 (DOH-ITITA) *Note 8 (DOH-ASTOG) ASTOG 252822N 0525025E ITITA 2544.2N 05418.7E
L306	TOKRA 220925N 0553350E * Note- 7 (OO) DEMKI 224941N 0562308E LAKLU 232235N 0570401E

	SOGUM 3412.2N 04354.9E SIGNI 3400.1N 04442.2E MIGMI 3345.9N 04527.4E ILAM (ILM)
UL200	AMMAN LOXER 320256N 362500E LUDAN 320256N 0363713 E KUPRI 320825N 0364530 E ASLON 321211N 0365111E NADEK 322728N 0371429E DAXEN 324444N 0374105E KAREM 325110N 0380324 E KUMLO 325811N 0382807 E DAPUK 330139N 0384026 E PASIP 330600N 0385600E GIBUX 330715N 0411625E SIGBI 330200N 0422000E SILBO 325900N 0432900E
UL223	DASIS 385430N 0441230E UROMIYEH (UMH) SANANDAJ (SNJ) KHORAM ABAD (KRD) MESVI 312920N 0495701E LAMERD (LAM) SIRRI (SIR) * Note 7 (OI-OM-OO) NALTA 250242N 0553955E TARDI 243418N 0560915E LAKLU 232235N 05704 01E
UL300	LUXOR (LXR) MEMPO 252518N 0335457E GIBAL2437.2N03634.7E YENBO (YEN) 2408.8N 03803.9E
UL301	AAU 5153N 07523 38.6E NOBAT 210902.5N 0880000.1E LADOT 220502N 0660001 RASKI 230330N 0635200E VAXIM 231900N 0611100E RAGMA 232301N 0603846E
UL305	DOHA (DOH) *Note 7 to ITITA *Note 8 (DOH-ASTOG) ASTOG 252822N 0525025E ITITA 2544.2N 05418.7E
UL306	TOKRA 220925N 0553350E * Note- 7 (OO) DEMKI 224941N 0562308E LAKLU 232235N 0570401E

L308	EGNOV 270301N 0474713E *Note 7 (EGNOV- SERSA) *Note 8 (EGNOV- OBNET) (JBL) 270220N 0492427E RAMSI 270249N 0500714E GASSI 2702.9N 05022.5E ~~UMAMA 2658.5N 05046.8E~~ ~~LOTIT 2648.9N 05112.6E~~ ~~NADAM 255854N 0533933E~~ TOSDA 270005N 0505629E TORBO 265223N 0511024E SOGAN 263915N 0515408E DEGSO 261054N 0531946E OBNET 260032N 0534514E ITITA 254410N 0541839E DESDI 253603N 0544230E RAGOL 252743N 0550739E SERSA 251945N 0553118E TUKLA 251936N 0554010E NADNI 251915N 0555658E LALDO 251806N 0563600E ~~SHARJAH (SHJ) 2519.7N 05531.3E~~ IMLOT 2517.1N 05708.1E KATUS 2515.9N 05747.0E DIVAB 2510.7N 05952.1E EGPIC 2508.6N 06029.5E (JIWANI) LATEM 2431.7N 06449.7E
L310	BOXAK 244536N 0540032E *Note 7 & 8 to LALDO SIGBO 2455.4N 05456.9E NALTA 2502.7N 05539.8E AVAMI 2505.9N 05556.8E LALDO 251806N 0563600E
L314	NABAN 163124N 0430148E GOMRI 131816N 0443224E
L315	CAIRO(CVO) HURGHADA (HGD) GIBAL 2437.2N 03634.7E
L321	KATAB 292501N 0290506E KUNKI 290726N 0291949E KUNAK 2527.7N 03041.2E LUGAV 224205N 0313722E SML 222118N 0313719E

UL308	EGNOV 270301N 0474713E *Note 7 (EGNOV- SERSA) *Note 8 (EGNOV- OBNET) (JBL) 270220N 0492427E RAMSI 270249N 0500714E GASSI 2702.9N 05022.5E ~~UMAMA 2658.5N 05046.8E~~ ~~LOTIT 2648.9N 05112.6E~~ ~~NADAM 255854N 0533933E~~ TOSDA 270005N 0505629E TORBO 265223N 0511024E SOGAN 263915N 0515408E DEGSO 261054N 0531946E OBNET 260032N 0534514E ITITA 254410N 0541839E DESDI 253603N 0544230E RAGOL 252743N 0550739E SERSA 251945N 0553118E TUKLA 251936N 0554010E NADNI 251915N 0555658E LALDO 251806N 0563600E ~~SHARJAH (SHJ) 2519.7N 05531.3E~~ IMLOT 2517.1N 05708.1E KATUS 2515.9N 05747.0E DIVAB 2510.7N 05952.1E EGPIC 2508.6N 06029.5E (JIWANI) LATEM 2431.7N 06449.7E
UL310	BOXAK 244536N 0540032E *Note 7 & 8 to LALDO SIGBO 2455.4N 05456.9E NALTA 2502.7N 05539.8E AVAMI 2505.9N 05556.8E LALDO 251806N 0563600E
UL314	NABAN 163124N 0430148E GOMRI 131816N 0443224E
UL315	CAIRO(CVO) HURGHADA (HGD) GIBAL 2437.2N 03634.7E
UL321	KATAB 292501N 0290506E KUNKI 290726N 0291949E KUNAK 2527.7N 03041.2E LUGAV 224205N 0313722E SML 222118N 0313719E
UL322	MUMBAI (BBB)

			* Note 7&1 SUGID 1933.1N 06921.0E BOLIS 2033.5N 065 00.0E REXOD 2112.5N 06138.5E
		UL333	DASIS TABRIZ (TBZ) RASHT (RST) GIBAB 3537.0N 05430.9E ALRAS 3511.3N 05541.6E TASLU 342632N 0574234E SOKAM 331316N 0603752E
L417	VUSEB 361637N 0434800E UMESA 351741N 0434307E MUTAG 343003N 0433834 E LAGLO 3515.6 04414.0E ELOSI 330800N 0441800E LOVEK 3222.1N 04440.0E ELIBA 320915N 0444645E NADOX 310505N 0451851E	UL417	VUSEB 361637N 0434800E UMESA 351741N 0434307E MUTAG 343003N 0433834 E LAGLO 3515.6 04414.0E ELOSI 330800N 0441800E LOVEK 3222.1N 04440.0E ELIBA 320915N 0444645E NADOX 310505N 0451851E
		UL425	KING ABDULAZIZ (JDW) TONBO 205502N 0394911E AL BAHA (BHA) BISHA (BSH) WADI AL DAWASIR (WDR) EGREN 202236N 0464422E ASTIN 200410N 0495320E DIRAS 195235N 0513704E GOBRO 193622N 0534741E NOVNO 193313N 0535858E ITUVO 190315N 0554328E DEDSO 185811N 0560041E BOVOS 182230N 0575844E ASPUX 174406N 0600006E (TRIVANDRUM)
L430	VAXIM 231900N 0611100E MESPO 244936N 0593411E MELMI 264625N 0572300E TAVNO 281112N 0563252E ASMET 284827N 0560806E SRJ 2933.4N 05539.6E	UL430	VAXIM 231900N 0611100E MESPO 244936N 0593411E MELMI 264625N 0572300E TAVNO 281112N 0563252E ASMET 284827N 0560806E SRJ 2933.4N 05539.6E
L440	KANIP 2410.7N 05520.7E *Note 7 RETAS 235754N 0553423E	UL440	KANIP 2410.7N 05520.7E *Note 7 RETAS 235754N 0553423E
L443	BAHRAIN DVORDME(BAH) *Note 8 (BAH-COPPI) RANLI 262509N 0503219E	UL443	BAHRAIN DVORDME(BAH) *Note 8 (BAH-COPPI) RANLI 262509N 0503219E

	*Note 7 (RANLI-COPPI) RULEX 264529N 0501745E RAMSI 270249N 0500714E ALVUN 271028N 0494455E TORSI 272335N 0490606E COPPI 275033N 0474359E		*Note 7 (RANLI-COPPI) RULEX 264529N 0501745E RAMSI 270249N 0500714E ALVUN 271028N 0494455E TORSI 272335N 0490606E COPPI 275033N 0474359E
L444	KIPOL 230410N 0612903E *Note 7 (OO) VUSIN 225940N 0605510E MIBSA 225400N 0601338E KAXEM 225103N 0595243E IMDEK 224647N 0592217E TOLDA 224008N 0583624E	UL444	KIPOL 230410N 0612903E *Note 7 (OO) VUSIN 225940N 0605510E MIBSA 225400N 0601338E KAXEM 225103N 0595243E IMDEK 224647N 0592217E TOLDA 224008N 0583624E
L513	MURAK 3459.4N 03642.1E LEBOR 3415.9N 03635.0E DAMASCUS (DAM) * Note 3 (OS) BUSRA 3220.0 N 03637.0 E QUEEN ALIA (QAA) QATRANEH (QTR) MAZAR 3048.0N 03610.0E	UL513	MURAK 3459.4N 03642.1E LEBOR 3415.9N 03635.0E DAMASCUS (DAM) * Note 3 (OS) BUSRA 3220.0 N 03637.0 E QUEEN ALIA (QAA) QATRANEH (QTR) MAZAR 3048.0N 03610.0E
		UL516	KITAL 2003.0N 06018.0E ELKEL 0149.0N 06911.0E DIEGO GARCIA (NDG
L519	ABU DHABI (ADV) *Note 7 (OM) NAMSI 2437.5N 05456.8E EMERU 244829N 0550303 LUDER 2457.5N 05505.2E	UL519	ABU DHABI (ADV) *Note 7 (OM) NAMSI 2437.5N 05456.8E EMERU 244829N 0550303 LUDER 2457.5N 05505.2E
		UL550	WAFRA (KFR) NIDAP 283850N 0473656E BOSID 2842.4N 04652.6E VATIM 2851.6N 04444.7E RASMO 2857.2N 04331.3E ORSAL2902.8N 04210.8E NIMAR 2906.6N 03954.4E KITOT 2902.1N 03450.8E NUWEIBAA (NWB) TABA (TBA) EL ARISH (ARH) PASOS (KAROL 3252.0N 03229.0E)
L551	ANTAR 334800N 0281600E EL DABA (DBA) 310041N 0282801E	UL551	ANTAR 334800N 0281600E EL DABA (DBA) 310041N 0282801E
L555	TOTOX 215030N 0622230E TUMET 222307N 0595702E TOLDA 224008N 0583624E	UL555	TOTOX 215030N 0622230E TUMET 222307N 0595702E TOLDA 224008N 0583624E

	UL556 EGREN 202236N 0464422E NONGA 205048N 0492014E PURDA 210805N 0510329E Note:- 7 (OO, OB) IMDAM 202416N 0550801E OTISA 201000N 0554556E HAIMA (HAI) 195813N 0561651E GIVNO 195011N 0563059E KUTVI 184306N 0582642E
	UL560 ARDABIL (ARB) 3819.9N 04824.9E * Note 3&4 (OI) SEVAN (SVN) 4032.0N 04456.9E
L564 DOHA (DOH) *Note 8 (DOH-PURDA) NAJMA 250346N 0513908E BATHA (BAT) 241257N 0512707E MIGMA 225035N 0512749E 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 134149N 0440818E PARIM 123142N 0432712E	UL564 DOHA (DOH) *Note 8 (DOH-PURDA) NAJMA 250346N 0513908E BATHA (BAT) 241257N 0512707E MIGMA 225035N 0512749E 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 134149N 0440818E PARIM 123142N 0432712E
	UL566 ASMAK 162327N 0524634E UKNEN 160542N 0522012E PURUG 151204N 0510142E KUSOL 144009N 0501534E NOTBO 142609N 0495530E EMABI 141627N 0494139E SOKEM 134235N 0485329E DATEG 123549N 0471627E
	UL572 KAMISHLY (KML) LESRI 3704.3N 04113.8E HASSAKEH (HAS) 3629N 04045.3E DIER ZZOR (DRZ) TANF (TAN)
	UL573 DAFINAH (DFN) 231658N 0414310E PMA WEJH (WEJ) 261045N 0362917E
	UL601 BAGLUM (BAG) 04004.2N03248.6E * Note 7

			ADANA 3656.4N03512.6E (ADA) TUNLA 3553.0N 0360200E) KARIATAIN 3412.8N 03715.9E
L602	*Note 7 & 8 to DAVUS TUMAK 255031N 0531108E ALTOM 262230N 0515639E DASOS 262430N 0515043E RAKAK 265221N 0502618E RAMSI 270249N 0500714E IVONI 275911N 0492131E DAVUS 282346N 0490622E	UL602	~~BAHRAIN (BAH)~~ *Note 7 to DELMI *Note 8 (TUMAK-DAVUS) ~~PEBOS 262722N0503043E~~ ~~RULEX 264529N 0501745E~~ TUMAK 255031N 0531108E ALTOM 262230N 0515639E DASOS 262430N 0515043E RAKAK 265221N 0502618E RAMSI 270249N 0500714E IVONI 275911N 0492131E DAVUS 282346N 0490622E DARVA 284814N 0484734E ALVIX 2919.3N04824.2E ~~F~~RALKA 292611N 0481819E TASMI 300120N 0475505E LOVEK 322206N 0444000E DELMI 331911N 0431731E *Note 3 (OS) ELEXI 344237N 0411054E DRZ 351724N 0401124E KUKSI 364508N 0374910E GAZ 365701N 0372824E
L604	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 (GAS) 2617.9N 04346.8E *Note 7 (GAS-KFA) PUSLA 261758N 0461706E *Note 8 to TOSNA MGA 2617.3N 04712.4E ALMAL 2615.9N 04821.1E KING FAHD (KFA) 2621.9N 04949.2E BAHRAIN (BAH) ASNIX 260452N 0510509E PATOM 255821N 0511836E EMISA 254658N 0514207E KAPAX 254218N 0515118E ORSIS 252801N 0521636E ENANO 252348N 0522559E TOSNA 251612N 0524116E	UL604	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 (GAS) 2617.9N 04346.8E *Note 7 (GAS-KFA) PUSLA 261758N 0461706E *Note 8 to TOSNA MGA 2617.3N 04712.4E ALMAL 2615.9N 04821.1E KING FAHD 2621.9N 04949.2E BAHRAIN (BAH) ASNIX 260452N 0510509E PATOM 255821N 0511836E EMISA 254658N 0514207E KAPAX 254218N 0515118E ORSIS 252801N 0521636E ENANO 252348N 0522559E TOSNA 251612N 0524116E

		UL607	SITIA (SIT) * Note 7 PAXIS 3357.1N02720.0E OTIKO 3134.4N 02936.6E ALEXANDRIA (~~AXD~~NOZ)
L612	KUMBI 334250N 0284500E LABNA 321956N 0301612E BALTIM (BLT) 313144N 0310721E	UL612	KUMBI 334250N 0284500E LABNA 321956N 0301612E BALTIM (BLT) 313144N 0310721E
		UL613	EL DABA (DBA) * Note 7 SOKAL 3236.0N 02720.0E TANSA 3400.0N 02649.0E
L617	ALEXANDRIA~~-AXD~~ NOZ IMRUT 313259N 0293346E ASNIR 323849N 0282144E TANSA 340000N 0264900E	UL617	ALEXANDRIA~~-AXD~~ NOZ IMRUT 313259N 0293346E ASNIR 323849N 0282144E TANSA 340000N 0264900E
L620	BALMA 342856N 0350302E KAD 334827N 0352910E	UL620	BALMA 342856N 0350302E KAD 334827N 0352910E
L631	TOTOX 215030N0622230E IVOMA 223408N 0605430E * Note 7 (OO) MIBSA 225400N 0601338E AMBOS 230324N 0595405E ELIGO 232458N 0590848E KARAR 233042N 0585438E MCT 233528.01N 0581536.47	UL631	TOTOX 215030N0622230E IVOMA 223408N 0605430E * Note 7 (OO) MIBSA 225400N 0601338E AMBOS 230324N 0595405E ELIGO 232458N 0590848E KARAR 233042N 0585438E MCT 233528.01N 0581536.47
L677	(CAIRO) 3005.5N 03123.3E MENLI 2947.0N 03152.1E KAPIT 2917.0N 03236.1E SHARM EL SHEIKH PASAM 2730.8N 03455.7E *Note 7(OE) WEJH 2610.8N 03629.3E MUVAT 2537.9N 03654.8E YEN 2409.0N 03802.3E JDW 2140.7N 03910.0E QUN 1922.2N 04104.5E TALIB 1838.9N 04131.2E GIZ 1654.5N 04234.7E NABAN 1631.4N 04301.8E IMSIL 1557.6N 04313.2E SAA 1530.0N 04413.2E	UL677	(CAIRO) 3005.5N 03123.3E MENLI 2947.0N 03152.1E KAPIT 2917.0N 03236.1E SHARM EL SHEIKH PASAM 2730.8N 03455.7E *Note 7(OE) WEJH 2610.8N 03629.3E MUVAT 2537.9N 03654.8E YEN 2409.0N 03802.3E JDW 2140.7N 03910.0E QUN 1922.2N 04104.5E TALIB 1838.9N 04131.2E GIZ 1654.5N 04234.7E NABAN 1631.4N 04301.8E IMSIL 1557.6N 04313.2E SAA 1530.0N 04413.2E
L681	EGNOV 270301N 0474713E * Note 5 & 7 & 8 to SALWA GEPAK 2633.0N 04843.5E RADMA 2623.0N 04857.5E	UL681	EGNOV 270301N 0474713E * Note 5 & 7 & 8 to SALWA GEPAK 2633.0N 04843.5E RADMA 2623.0N 04857.5E

	DELMU 2618.9N 04903.4E ROSEM 2607.7N 04919.0E SALWA 251538N 0503048E		DELMU 2618.9N 04903.4E ROSEM 2607.7N 04919.0E SALWA 251538N 0503048E
L695	PAROK 231030N 0590245E *Note 7 (OO) ITURA 232351N 0580720E	UL695	PAROK 231030N 0590245E *Note 7 (OO) ITURA 232351N 0580720E
L764	MUSCAT (MCT) ALMOG 233524N 0574940E IVETO 233520N 0570704E PAXIM 240245N 0561631E	UL764	MUSCAT (MCT) ALMOG 233524N 0574940E IVETO 233520N 0570704E PAXIM 240245N 0561631E
L768	ALPOB 254218N 0530055E * Note 7 & 8 to COPPI ROTAG 255353N 0523621E SOLEG 260159N 0521756E RAMKI 261138N 0515625E RABLA 261506N 0514834E SOLOB 262241N 0513132E MEDMA 263421N 0505454E TOTLA 263806N 0504301E COPPI 2750.6N 04744.0E	UL768	~~BALUS 254554N 0530424E~~ ~~ELAXI 260000N 0523500E~~ ~~IMTAS 281800N 0515700E~~ ~~DAXAS 2621.3N 0515000E~~ ~~ASMOR 2636.7 0511700E~~ ~~TOLMO 265504N 0502927E~~ ~~RAMSI 270249N 0500714E~~ ~~ALVUN 271028N 0494455E~~ ~~KISAB 272335N 0490606E~~ ALPOB 254218N 0530055E * Note 7 to FIRAS * Note 8 (ALPOB-COPPI) ROTAG 255353N 0523621E SOLEG 260159N 0521756E RAMKI 261138N 0515625E RABLA 261506N 0514834E SOLOB 262241N 0513132E MEDMA 263421N 0505454E TOTLA 263806N 0504301E COPPI 2750.6N 04744.0E HFR VATIM 2851.6N 04444.7E RAFHA (RAF) ARAR (AAR) OVANO 3148.0N 03909.9E OTILA 3201.5N 03901.9E MODAD 3235.7N 03841.6E SOKAN 3308.1N 03822.1E RAFIF 3312.8N 03819.3E SULAF 3327.3N 03810.4E FIRAS 3352.3N 03755.2E
		UL883	REXOD 211230N 0613830E GADMA 211439N 0600938E TAVKO 211519N 0593147E UMILA 211555N 0584738E MEVLI 211632N 0565606E KUROV 211627N 0561853E ALNUN 211625N 0561041E SITOL 211604N 0552514E PURDA 210805N 0510329E

			ALRIK 220631N 0482535E UMRAN 2315.1N 04520.4E TUKVU 2346.4N 04353.3E BIR DARB (BDB) PMA N243251N 0394219E
		UL894	KITAL 2003.0N 06018.0E (MALE (MLE) (SUNAN 0028.7N 07800.0E) (DADAR 0200.0S 07927.1E) (PERTH (PH)
M203	PUSTO 3321.0N 04245.0E LOVEK 3222.1N 04440.0E ILMAP 312133N 0465702E	UM203	PUSTO 3321.0N 04245.0E LOVEK 3222.1N 04440.0E ILMAP 312133N 0465702E
M300	LOTAV 2037N 0605700E EMURU 221535N 0584950E	UM300	(CALICUT) CLC LOTAV 2037N 0605700E EMURU 221535N 0584950E
M301	PURAD 145500N 0415354E SANA'A (SAA) ITOLI 152825N 0450927E ASMAK162327N 0524634E	M301	PURAD 145500N 0415354E SANA'A (SAA) ITOLI 152825N 0450927E ASMAK162327N 0524634E
M303	MCT 233528N 0581536E *Note 7 (OO) SEVLA 233321N 0591122E KIPOL230410N 0612903E	UM303	MCT 233528N 0581536E *Note 7 (OO) SEVLA 233321N 0591122E KIPOL230410N 0612903E
M305	BRN 3134.5N 02600.3E ATMUL 200000N 2905.4E *Note 3 (HE)	UM305	BRN 3134.5N 02600.3E ATMUL 200000N 2905.4E *Note 3 (HE)
		UM309	KIND KHALED (KIA) RAGHBA (RGB) RABTO 221608N 0400326E
M312	DBA 3100.7N 02828.0E AMIBO 3456.7N 2136.4E *Note 3 (HE)	UM312	DBA 3100.7N 02828.0E AMIBO 3456.7N 2136.4E *Note 3 (HE)
M316	KANAS 251552N 0574700E GOKSO 265542N 0604012E	UM316	KANAS 251552N 0574700E GOKSO 265542N 0604012E

M318	DARAX 260942N 0555300E *Note 8 (DARAX-MUXIT) SERSA 251945N 0553118E MIADA 245112N 0545736E ABU DHABI (ADV) 242508N 0544023E ATUDO 241708N 0543532E MUSEN 241429N 0543336E GOLGU 231151N 0523109E MUXIT 230230N 0523024E KITAP 224928N 0522923E PURDA 210805N 0510329E SHARURAH (SHA)
M320	KING FAHD (KFA) KODAG 2703.3N 04920.4E RAS ASVIR 283220N 0482220E KUWAIT (KUA)
M321	HALAIFA 262602N 0391609E (HLF) ROSUL 2539.7N 04215.3E OVEKU 2509.9 04457.0E KING KHALED (KIA) RESAL 240649N 0470427E AMBAG 230529N 0474611E ALRIK 220631N 0482525E NONGA 205048N 0492014E ASTIN 200410N 0495320E SILPA 184953N 0510158E IMPOS 183136N 0511848E LOTEL 180926N 0514103E PUTRA 165432N 0525631E
M425	SILKO 3347.9N 03435.0E CAK
M428	RIKET 251859N 0560200E *Note 7/8 (OO/OM) GOMTA 251115N 0563447E TARBO 244351N 0574637E MUNGA 242516N 0584533E
M430	*Note 5 (KIA-DOH) KING KHALID (KIA) KOBOX 250716N 0475046E KIREN 251447.0N 0490724.0E *Note 8 (KIREN-TOSNA) HAS 2516.7N04929E LAGNO 251613N 0511518E DOHA (DOH) *Note 7 (DOH-KISAG) TOSNA 251612N 0524116E

UM318	DARAX 260942N 0555300E *Note 8 (DARAX-MUXIT) SERSA 251945N 0553118E MIADA 245112N 0545736E ABU DHABI (ADV) 242508N 0544023E ATUDO 241708N 0543532E MUSEN 241429N 0543336E GOLGU 231151N 0523109E MUXIT 230230N 0523024E KITAP 224928N 0522923E PURDA 210805N 0510329E SHARURAH (SHA)
UM320	KING FAHD (KFA) KODAG 2703.3N 04920.4E RAS ASVIR 283220N 0482220E KUWAIT (KUA)
UM321	HALAIFA 262602N 0391609E (HLF) ROSUL 2539.7N 04215.3E OVEKU 2509.9 04457.0E KING KHALED (KIA) RESAL 240649N 0470427E AMBAG 230529N 0474611E ALRIK 220631N 0482525E NONGA 205048N 0492014E ASTIN 200410N 0495320E SILPA 184953N 0510158E IMPOS 183136N 0511848E LOTEL 180926N 0514103E PUTRA 165432N 0525631E
UM425	SILKO 3347.9N 03435.0E CAK
UM428	RIKET 251859N 0560200E *Note 7/8 (OO/OM) GOMTA 251115N 0563447E TARBO 244351N 0574637E MUNGA 242516N 0584533E
UM430	*Note 5 (KIA-DOH) KING KHALID (KIA) KOBOX 250716N 0475046E KIREN 251447.0N 0490724.0E *Note 8 (KIREN-TOSNA) HAS 2516.7N 04929.0E LAGNO 251613N 0511518E DOHA (DOH) *Note 7 (DOH-KISAG) TOSNA 251612N 0524116E

	~~• Note 5(OE,OB)~~ KISAG 251834N 0541408E
M434	UMESA 351741N 0434307E OTALO 351700N 0441900E IVANO 351724N 0451235E BOXIX 351724N 0460921E ALSAX 351607N 0463118E SANANDAJ (SNJ) HAMDAN(HAM) SAVEH(SAV)
M449	BUSRA 322000N 0363700E MAZAR 3048.0N 03610.0E GIBET 2926.3N 03625.0E TABUK (TBK) WEJH (WEJ)
M551	KIVEL 165306N 0553633E DAXAM 171612N 0544715E
M557	ATBOR 251007N 0551947E *Note7 ~~(OM) *Note~~ & 8 to MIDSI ~~(OM)~~ NADIL 252252N 0544717E NABOP 252607N 0540405E EMAGO 253456N 0535751E VUVOK 254408N 0533024E TUMAK 255031N 0531108E ALTOM 262230N 0515639E TOXEL 263020N 0515553E MIDSI 264142N 0515442E ~~KUVAX 253223N 0540825E~~ ~~TUDAX 254440N 0531655E~~ ~~BALUS 254554N 0530424E~~
M559	LABNI 165620N 0410921E NISMI 162415N 0421838E ITOLI 152825N 0450927E MUKALLA (RIN) VEDET 120134N 0512410E
M561	KISH (KIS) MOBET 2645.3N 05609.8E ASVIB 265724N 0631812E

	~~• Note 5(OE,OB)~~ KISAG 251834N 0541408E
UM434	UMESA 351741N 0434307E OTALO 351700N 0441900E IVANO 351724N 0451235E BOXIX 351724N 0460921E ALSAX 351607N 0463118E SANANDAJ (SNJ) HAMDAN(HAM) SAVEH(SAV)
UM440	KING KHALED (KIA) OTAMA 235148N 0494707E KUTNA 231341N 0512730E KITAP 224928N 0522923E TOKRA 220925N 0553350E
UM449	BUSRA 322000N 0363700E MAZAR 3048.0N 03610.0E GIBET 2926.3N 03625.0E TABUK (TBK) WEJH (WEJ)
UM551	DONSA1435.3N06344.0E ANGAL1614.1N 06000.1E OTOTO 164004N 0570435E KIVEL 165306N 0553633E DAXAM 171612N 0544715E
UM557	ATBOR 251007N 0551947E *Note7 & 8 to MIDSI ~~(OM) *Note~~ ~~(OM)~~ NADIL 252252N 0544717E NABOP 252607N 0540405E EMAGO 253456N 0535751E VUVOK 254408N 0533024E TUMAK 255031N 0531108E ALTOM 262230N 0515639E TOXEL 263020N 0515553E MIDSI 264142N 0515442E ~~KUVAX 253223N 0540825E~~ ~~TUDAX 254440N 0531655E~~ ~~BALUS 254554N 0530424E~~
UM559	LABNI 165620N 0410921E NISMI 162415N 0421838E ITOLI 152825N 0450927E MUKALLA (RIN) VEDET 120134N 0512410E
UM561	KISH (KIS) MOBET 2645.3N 05609.8E ASVIB 265724N 0631812E

	PANJGUR (PG)		PANJGUR (PG)
		UM573	TEHERAN (TRN) TABRIZ (TBZ) 3808.3N 04613.9E
		UM574	MALE) (MLE) (POPET) 0713.7N06813.6E NABIL 1222.0E0600.0E RIGAM 143932N 0530414E NOBSU 171554N 0431318E
M600	~~RANBI 251908N 0544500E~~ ~~KISAG 251834N 0541408E~~ ~~SINGU 253706N 052570E~~ ~~NOBLA 255111N 0522740E~~ ~~TOBLI 262134N 0512301E~~ ~~RULEX 264529N 0501745E~~ TUMAK 255031N 0531108E *Note 7 & 8 to KUMBO VEDOM 260109N 0524456E VELAK 261307N 0521821E ALTOM 262230N 0515639E DASOS 262430N 0515043E ALMOK 262832N 0513840E VEDOS 264106N 0510045E MEMKO 264611N 0504427E RAKAK 265221N 0502618E RAMSI 270249N 0500714E ALVUN 271028N 0494455E SOLEM 275229N 0491136E KUMBO 281705N 0485526E	UM600	~~RANBI 251908N 0544500E~~ ~~KISAG 251834N 0541408E~~ ~~SINGU 253706N 052570E~~ ~~NOBLA 255111N 0522740E~~ ~~TOBLI 262134N 0512301E~~ ~~RULEX 264529N 0501745E~~ TUMAK 255031N 0531108E *Note 7 & 8 to KUMBO VEDOM 260109N 0524456E VELAK 261307N 0521821E ALTOM 262230N 0515639E DASOS 262430N 0515043E ALMOK 262832N 0513840E VEDOS 264106N 0510045E MEMKO 264611N 0504427E RAKAK 265221N 0502618E RAMSI 270249N 0500714E ALVUN 271028N 0494455E SOLEM 275229N 0491136E KUMBO 281705N 0485526E
M628	LUDID 230227N 0551800E LABSA 230153N 0555505E EGVAN 230127N 0561907E TULBU 230005N 0571827E IZK 225318.60N 0574542.73E TOLDA 224008N 0583624E LOXOP 223722N 0594548E LADAP 223513N 0603238E IVOMA 223408N 0605430E PARAR 222630N 0630700E	UM628	DAFINAH (DFN) 231700N 0414312E KIPOM 225316N 0501518E MIGMA 225035N 0512749E KITAP 224928N 0522923E ALPEK 224648N 0535942E LUDID 230227N 0551800E LABSA 230153N 0555505E EGVAN 230127N 0561907E TULBU 230005N 0571827E IZK 225318.60N 0574542.73E TOLDA 224008N 0583624E LOXOP 223722N 0594548E LOSIM 223513N 0603238E IVOMA 223408N 0605430E PARAR 222630N 0630700E
M634	ANGAL 161406N 0600006E VEDET 120134N 0512410E DAROT 0911.4N 04721.2E	UM634	ANGAL 161406N 0600006E VEDET 120134N 0512410E DAROT 0911.4N 04721.2E
M651	ATBOT 171418N 0464706E ADEN (KRA)	UM651	ATBOT 171418N 0464706E ADEN (KRA)

(HARGEISA) HARGA

M677 SESRA 2908.0N04854.9E
*Note 7 to OBNET
RABAP 283625N 0492722E
*Note 8 (RABAP-OBNET)
~~GEVAL 282101N 0494300E~~
~~UMAMA 265831N 0504648E~~
GOGMA 281421N 0495612E
VEDOR 270855N 0504630E
TOSDA 270005N 0505629E
TORBO 265223N 0511024E
SOGAN 263915N 0515408E
DEGSO 261054N 0531946E
OBNET 260032N 0534514E

M681 TARBO 244351N 0574637E
*Note 7/8 (OO)
DAMUM 243236N 0591307E

M686 LUXOR (LXR)
MEMPO 252518N 0335457E
GIBAL 243712N 0363442E
KING ABDULAZIZ (JDW)

(HARGEISA) HARGA

UM677 SESRA 2908.0N 04854.9E
*Note 7 to OBNET
RABAP 283625N 0492722E
*Note 8 (RABAP-OBNET)
~~GEVAL 282101N 0494300E~~
~~UMAMA 265831N 0504648E~~
GOGMA 281421N 0495612E
VEDOR 270855N 0504630E
TOSDA 270005N 0505629E
TORBO 265223N 0511024E
SOGAN 263915N 0515408E
DEGSO 261054N 0531946E
OBNET 260032N 0534514E

UM681 TARBO 244351N 0574637E
*Note 7/8 (OO)
DAMUM 243236N 0591307E

UM686 LUXOR (LXR)
MEMPO 252518N 0335457E
GIBAL 243712N 0363442E
KING ABDULAZIZ (JDW)

UM688 CRM
GULRA
ERN
EVSAS
BAYIR 383541N 0412414 E
ULTED
OTKEP
NINVA 372100N 0431300E
ROXOP 364917N 0433100E
VUSEB 3616 37N E0434800E
OTALO 351700N 0441900E
RIDIP 343012N 0444027E
UKMUG 334300N 0450329E
VAXEN 3318 00N 0451500E
PAPUS 325334N 0452706E
KATUT 323737N 0453439E
DENKI 322228.46N 0455121E
ILMAP 312133N 0465702E
PEBAD 305023N 0472958E
SIDAD 295231N 0482944E

UM690 ZELAF 325656N 0371121E
DESLI 314921N 0365909E
ELOXI 313359N 0364536E
KULDI 311847 0363214E
MAZAR 3048.0N 3610.0E
METSA 2927.0N 3459.0E

M691	DEDAS 2630.2N 05014.4E KING FAHAD KUSAR 264741N 0490218E KEDAT 2721.8N 04759.0E ITIXI 275031N 0470435E
M762	REXOD 211230N 0613830E SUR 223159N 0592829E ITURA 232351N 0580720E ALMOG 233524N0574940E TAPRA 242607N 0563803E VAXAS 244308N 0561807E * Note 7 (OM, OO) BUBIN 245742N 0560642E
M860	KUGOS 4246.8N 03405.3E SINOP (SIN) CARSAMBA (CRM) SRT 3754.6N 04152.9E KABAN 371456N 0423859E EMIDO 364411N 0425600E SEVKU 360548N 0431716E UMESA 351741N 0434307E TAGRU 342959N 0440817E PUTSI 333200N 0443700E ITOVA 331951N 044429E SEPTU 331300N 0444400E LONOR 323839N 0450458E ULIMA 321500N 0451600E ITBIT 314735N 0452917E RUGIR 303219N 0460618E MOBIS 295109N 0470457E
M863	KING ABDULAZIZ (JDW) 214237N 0390948E GIBAP 212218N 0380931E TOMRU 204411N 0361950E ASKOL 1548.9N 02400.1E KITOB 1521.7N 02258.8E IPONO 150621N 0222436 E N'DJAMENA (FL) 1208.5N 01502.3E
M872	PLH 3513.7N 02340.9E *Note 7 (PLH-DBA) METRU 340000N 0250900E KANAR 322727N 0265330E EL DABA (DBA) 310041N 0282801E FYM 2923.8N 03023.6E *Note 7 (FYM-SEMRU)

UM691	DEDAS 2630.2N 05014.4E KING FAHAD KUSAR 264741N 0490218E KEDAT 2721.8N 04759.0E ITIXI 275031N 0470435E
UM860	KUGOS 4246.8N 03405.3E SINOP (SIN) CARSAMBA (CRM) SRT 3754.6N 04152.9E KABAN 371456N 0423859E EMIDO 364411N 0425600E SEVKU 360548N 0431716E UMESA 351741N 0434307E TAGRU 342959N 0440817E PUTSI 333200N 0443700E ITOVA 331951N 044429E SEPTU 331300N 0444400E LONOR 323839N 0450458E ULIMA 321500N 0451600E ITBIT 314735N 0452917E RUGIR 303219N 0460618E MOBIS 295109N 0470457E
UM861	ELEXI 3441.5N 04109.0E DIER-ZZOR (DRZ) ALEPPO (ALE) NISAP 364724N 0363830E
UM863	KING ABDUL AZIZ (JDW) 214237N 0390948E GIBAP 212218N 0380931E TOMRU 204411N 0361950E ASKOL 1548.9N 02400.1E KITOB 1521.7N 02258.8E IPONO 150621 N 0222436 E N'DJAMENA (FL) 1208.5N 01502.3E
UM872	PLH 3513.7N 02340.9E *Note 7 (PLH-DBA) METRU 340000N 0250900E KANAR 322727N 0265330E EL DABA (DBA) 310041N 0282801E FYM 2923.8N 03023.6E *Note 7 (FYM-SEMRU)

	SEMRU 280200N 0320306E HURGHADA (HGD) *Note 7 (HGD-WEJ) SILKA 263400N 0352900E WEJH (WEJ) 261046N 0362917E KODIN 2517.9N 03836.2E MADINAH (PMA) *Note 7 (PMA-MIDSI) BIR DARB (BDB) AL DAWADMI (DAW) KING KHALID (KIA) AKRAM 255036N 0475133E *Note 8 to MIDSI ALMAL 261553N 0482108E DAVRI 264936N 0505732E ~~LOTIT 264856N0511237E~~ MIDSI 264142N 0515442E
M999	GS DITAR 265903N 0250000E KHG KUNAK (LUXOR) LXR DEDLI 2242 32N 03737 19E IMLER 221706N 0381653E KING ABDULAZIZ (JDW) TOKTO 194421N 00395945E DANAK 1608.0N 04129.0E (ASSAB) SB
N300	DOH 2514N 05134.6E *Note 7 & 8 to TONVO NAMLA 2505.5N 05233.3E ~~*Note 7/8 (OM)~~ BOXAK 244536N 0540032E MIADA 245112N 0545736E TONVO 250500N 0563200E
N302	SIDAD 295231N 0482944E ALVIX 291915N 0482944E
N303	(HARGEISA) HARGA PARIM 1231.7N 04327.2E RIBOK1547N 04152.5E LABNI 1656.3N 04109.4E
N307	~~MILAD~~MELDO 320201N0310406E LAKTO 323800N 0320500E

	SEMRU 280200N 0320306E HURGHADA (HGD) *Note 7 (HGD-WEJ) SILKA 263400N 0352900E WEJH (WEJ) 261046N 0362917E KODIN 2517.9N 03836.2E MADINAH (PMA) *Note 7 (PMA-MIDSI) BIR DARB (BDB) AL DAWADMI (DAW) KING KHALID (KIA) AKRAM 255036N 0475133E *Note 8 to MIDSI ALMAL 261553N 0482108E DAVRI 264936N0505732E ~~LOTIT 264856N0511237E~~ MIDSI 264142N 0515442E
UM877	VUSET 235540N 0590812E ITILA 234015N 0584817E KUSRA 232426N 0582611E
UM999	GS DITAR 265903N 0250000E KHG KUNAK (LUXOR) LXR DEDLI 2242 32N 03737 19E IMLER 221706N 0381653E KING ABDULAZIZ (JDW) TOKTO 194421N 00395945E DANAK 1608.0N 04129.0E (ASSAB) SB
UN300	DOH 2514N 05134.6E *Note 7 & 8 to TONVO NAMLA 2505.5N 05233.3E ~~*Note 7/8 (OM)~~ BOXAK 244536N 0540032E MIADA 245112N 0545736E TONVO 250500N 0563200E
UN302	SIDAD 295231N 0482944E ALVIX 291915N 0482944E
UN303	(HARGEISA) HARGA PARIM 1231.7N 04327.2E RIBOK1547N 04152.5E LABNI 1656.3N 04109.4E
UN307	~~MILAD~~MELDO 320201N0310406E LAKTO 323800N 0320500E

N310 BALMA 342856N 0350302E
CAK 341802N 0354200E
LATEB 3401.9N 03624.1E
BASEM 3333.6N 03739.1E

N318 QAA 314423N 0360926E
ALNOR 313955N 0362507E
KINUR 313626N0363714E
ELOXI 313359N 0364536E
GENEX 3129.6N 3700.9E
GURIAT (GRY)
ORKAS 3047.4N 03846.3 E
NEVOL 3024.7N 03938.6E
VELAL2946.0N 04038.4E
TAMRO 2838.6N 04240.8E
* Note7 (OE, OB, OM, OO)
MOGON 2738.8N 04445.9E
TAGSO 272744N 0454510E
*Note 8 (OB, OO)
EGNOV 270301N 0474713E
KUSAR 264741N 0490218E
ASPAN 263255N 0494903E
~~MEMBO 262425N 0504737E~~
DEDAS 263011N 0501427E
ASTAD 261812N 0505646E
VUTAN 255016N 0515218E
RESAR 253707N 0522328E
UMABA 252703N 0524322E
OVONA 252443N 0524739E
~~VATEL 255520N 0515353E~~
~~LOXAT 252140N 0524523E~~
~~* Note7 (OM/OO)~~
(segment LOXAT - REXOD
KATIK 2517.1N 05315.2E
KANIP 2410.7N 05520.7E
LABRI 240344N 0553842E
~~* Note 8 (OO)~~
EGROK 235253N 0560126E
LAKLU 232235N 0570401E
GEVED 230105N 0575111E
TOLDA 223720N 0583503E
REXOD 211230N 0613830E

UN310 BALMA 342856N 0350302E
CAK 341802N 0354200E
LATEB 3401.9N 03624.1E
BASEM 3333.6N 03739.1E

UN315 ASPUX 174406N 0600006E
KUTVI 184306N 0582642E
Note:- 7 (OO/OB)
SITOL 211604N 0552514E
LOTOS 220000N 0503912E
RAPMA 232256N 0482028E
RESAL 240649N 0470427E
KING KHALED (KIA)

UN316 HALAIFA (HLF) 262603N 0391609E
PASAM 273045N 0345542E

UN318 QAA 314423N 0360926E
ALNOR 313955N 0362507E
KINUR 313626N0363714E
ELOXI 313359N 0364536E
GENEX 3129.6N 3700.9E
GURIAT (GRY)
ORKAS 3047.4N 03846.3 E
NEVOL 3024.7N 03938.6E
VELAL2946.0N 04038.4E
TAMRO 2838.6N 04240.8E
* Note7 (OE, OB, OM, OO)
MOGON 2738.8N 04445.9E
TAGSO 272744N 0454510E
*Note 8 (OB, OO)
EGNOV 270301N 0474713E
KUSAR 264741N 0490218E
ASPAN 263255N 0494903E
~~MEMBO 26242 5N 0504737E~~
DEDAS 263011N 0501427E
ASTAD 261812N 0505646E
VUTAN 255016N 0515218E
RESAR 253707N 0522328E
UMABA 252703N 0524322E
OVONA 252443N 0524739E
~~VATEL 255520N 0515353E~~
~~LOXAT 252140N 0524523E~~
~~* Note7 (OM/OO)~~
(segment LOXAT-REXOD)
KATIK 2517.1N 05315.2E
KANIP 2410.7N 05520.7E
LABRI 240344N 0553842E
~~* Note 8 (OO)~~
EGROK 235253N 0560126E
LAKLU 232235N 0570401E
GEVED 230105N 0575111E
TOLDA 223720N 0583503E
REXOD 211230N 0613830E

N324	PURDA 210805N 0510329E GOBRO 193622N 0534741E ASTUN 180832N 0551040E
N430	TARBO 244351N 0574637E *Note 7/8 (OO) ITLOB 244325N 0590701E
N438	LITAN 333456N 0343758E KAD 334827N 0352910E CAK 341802N 0354200E RA 343510N 0360010E
N440	MOBON 274414N 0552513E DARAX 260916N 0555307E
N563	REXOD 211230N 0613830E *Note 8 (OB, OM) *Note 7 (OB, OO, OM) EMURU 221357N 0585338E TULBU 230005N 0571827E MEKNA 223309N 0560815E ~~*Note 8 (OO)~~ SODEX 234954N 0553202E NOBTO 235525N 0551840E ADV ~~BALUS 254554N 0530424E~~ MEMBI 243705N 0542631E ATBEX 250739N 0535019E ITROK 253557N 0532751E ALPOB 254218N 0530055E ROTAG 255353N 0523621E SOLEG 260159N 0521756E SOLOB 262241N 0513132E MEDMA 263412N 0505454E TOTLA 263806N 0504301E

UN319	ZAHEDAN (ZDN) TABAS (TBS) DASHT-E-NAZ (DNZ) ULDUS- 3800.0N 05101.0E LUSAL 4035.0N 04757.0E ADEKI 4117.8N 04645.0E TBILIS (TBS) MUKHARANI (DF) ALI (BT) LOBIN 4210.9N 04306.4E IBERI 4209.6N 04143.3E
UN324	PURDA 210805N 0510329E GOBRO 193622N 0534741E ASTUN 180832N 0551040E
UN430	TARBO 244351N 0574637E *Note 7/8 (OO) ITLOB 244325N 0590701E
UN438	LITAN 333456N 0343758E KAD 334827N 0352910E CAK 341802N 0354200E RA 343510N 0360010E
UN440	MOBON 274414N 0552513E DARAX 260916N 0555307E
UN555	BELGAUM (BBM) BISET 1823.4N 06918.1E KATBI 1931.6N 06500.0E LOTAV 2037.0N 06057.0E
UN563	(BANGALORE) BBG *Note 8 (OB, OM) REXOD 211230N 0613830E *Note 7 (OB, OO, OM) EMURU 221357N 0585338E TULBU 230005N 0571827E MEKNA 223309N 0560815E ~~*Note 8 (OO)~~ SODEX 234954N 0553202E NOBTO 235525N 0551840E ~~BALUS 254554N 0530424E~~ MEMBI 243705N 0542631E ATBEX 250739N 0535019E ITROK 253557N 0532751E ALPOB 254218N 0530055E ROTAG 255353N 0523621E SOLEG 260159N 0521756E SOLOB 262241N 0513132E MEDMA 263412N 0505454E TOTLA 263806N 0504301E

	RULEX 264529N 0501745E SILNO 264026N 0475745E GIBUS 255724N 0472829E		RULEX 264529N 0501745E SILNO 264026N 0475745E GIBUS 255724N 0472829E
		UN569	RABTO 221608N 0400326E LOTOS *Note~~:~~ 7 (~~OB/OO~~LOTOS-GOLNI) TOKRA 220925N 0553350E TOPSO 215653N 0562043E MOGOK 215057N 0564236E KEBAS 214330N 0570948E GISKA 213503N 0574014E UMILA 211555N 0584738E GOLNI 210014N 0594130E LOTAV 203700N 0605700E
N571	PARAR 2226.5 N 06307E *Note 7 & 8 (OB, OM, OO) KIPOL 230410N 0612903E RAGMA 230600N 0610539E SODEB 234747N 0593023E VUSET 235540N 0590812E KIROP 243000N 0574700E ~~*Note 8 (OO)~~ MENSA 245750N 0563249E AVAMI 250554N 0555647E ~~* Note 7 (OO OM)~~ ATBOR 251007N 0551947E ~~* Note 8 (OM)~~ MUVLA 251716N 0544500E SENTO 251908N 0544500E ELUKU 252910N 0535610E ITROK 253557N 0532751E ALPOB 254218N 0530055E SOLOB 262241N 0513132E MEDMA 263412N 0505454E TOTLA 263806N 0504301E RULEX 264529N 0501745E SILNO 264026N 0475745E KUTEM 264359N 0473521E BOPAN VORMDE(BPN) 270314N 0452642E ~~VAVIL 253906N 0531426E~~ ~~BALUS 254554N 0530424E~~	UN571	(GUN~~P~~IP 0429.9N 09931.8E) (VAMPI 0610.9N 09735.1E) (MEKAR 0630.2N 06929.5E) (SUGID- 1933.1 N 06921.0E) PARAR 2226.5 N 06307E *Note 7 & 8 (OB, OM, OO) KIPOL 230410N 0612903E RAGMA 230600N 0610539E SODEB 234747N 0593023E VUSET 235540N 0590812E KIROP 243000N 0574700E ~~*Note 8 (OO)~~ MENSA 245750N 0563249E AVAMI 250554N 0555647E ~~* Note 7 (OO OM)~~ ATBOR 251007N 0551947E ~~* Note 8 (OM)~~ MUVLA 251716N 0544500E SENTO 251908N 0544500E ELUKU 252910N 0535610E ITROK 253557N 0532751E ALPOB 254218N 0530055E SOLOB 262241N 0513132E MEDMA 263412N 0505454E TOTLA 263806N 0504301E RULEX 264529N 0501745E SILNO 264026N 0475745E KUTEM 264359N 0473521E BOPAN VORMDE(BPN) 270314N 0452642E ~~VAVIL 253906N 0531426E~~ ~~BALUS 254554N 0530424E~~

N629	TARDI 243418N 0560915E *Note 7 (OO) NOSMI 241757N 0563002E MUSUK 234320N 0572148E GEPOT 231446N 0580053E GIDAN 230104N 0582232E TOTOX 215030N 0622230E
N638	KING KHALED (KIA) OVEKU 250955N 0445701E MADINAH (PMA)
N685	TAGSO 272744N 0454510E *Note 7 (TAGSO-KUSAR) *Note 8 (TAGSO-TOSNA) DEBOL 272116N 0461843E TORTA 271906N 0462911E ALSAT 270611N 0473118E EGNOV 270301N 0474713E KUSAR 264741N 0490218E KING FAHAD (KFA) BAHRAIN (BAH) 261551N 0503856E ASNIX 260452N 0510509E PATOM 255821N 0511836E EMISA 254658N 0514207E *Note 7 to LAKLU KAPAX 254218N 0515118E ~~LOXAT 252140N 0524523E~~ ORSIS 252801N 0521636E TOSNA 251612N 0524116E TOPSI 250910N 0531200E BOXAK 244536N 0540032E ADV 242508N 0544024 ~~*Note 7/8 (OO/OM)~~ RETAS 235754N 0553423E *Note 8 (OO) PUTSO 232037N 0565322E LAKLU 232235N 0570401E
N687	KING KHALID (KIA) KINIB 254108N 0482317E *Note 5 & 7 & 8 KING FAHAD (KFA) MUTAR 263611N 0500627E MEMKO 264611N 0504427E DAVRI 264936N 0505732E TORBO 265223N 0511024E ~~Note5~~ ~~Note 7 above FL250~~
N694	KING KHALD (KIA) TORKI 261400N 0463103E

UN629	TARDI 243418N 0560915E *Note 7 (OO) NOSMI 241757N 0563002E MUSUK 234320N 0572148E GEPOT 231446N 0580053E GIDAN 230104N 0582232E TOTOX 215030N 0622230E
UN638	KING KHALED (KIA) OVEKU 250955N 0445701E MADINAH (PMA)
UN685	TAGSO 272744N 0454510E *Note 7 (TAGSO-KUSAR) *Note 8 (TAGSO-TOSNA) DEBOL 272116N 0461843E TORTA 271906N 0462911E ALSAT 270611N 0473118E EGNOV 270301N 0474713E KUSAR 264741N 0490218E KING FAHAD (KFA) BAHRAIN (BAH) 261551N 0503856E ASNIX 260452N 0510509E PATOM 255821N 0511836E EMISA 254658N 0514207E *Note 7 to LAKLU KAPAX 254218N 0515118E ~~LOXAT 252140N 0524523E~~ ORSIS 252801N 0521636[E] TOSNA 251612N 0524116E TOPSI 250910N 0531200E BOXAK 244536N 0540032E ADV 242508N 0544024 ~~*Note 7/8 (OO/OM)~~ RETAS 235754N 0553423E *Note 8 (OO) PUTSO 232037N 0565322E LAKLU 232235N 0570401E
UN687	KING KHALID (KIA) KINIB 254108N 0482317E *Note 5 & 7 & 8 KING FAHAD (KFA) MUTAR 263611N 0500627E MEMKO 264611N 0504427E DAVRI 264936N 0505732E TORBO 265223N 0511024E
UN694	KING KHALD (KIA) TORKI 261400N 0463103E

	SIBLI 265459N 0462334E AKODI 275012N 0461320E HAFR AL BATIN 281949N 0460746E (HFR)
N697	MENLI 2947.0N 03152.1E SISIK 2936.0N 03241.0E NUWEIBAA (NWB) * Note 7 (NWB-KITOT below FL350) KITOT 2902.1N 03450.8E ~~*Note 7 (OE)~~ SOBAS 2756.0N 03904.9E HAIL (HIL) *Note 7 (HIL–KFA) BPN 2703.2N 04526.7E *Note 8 (BPN-TORBO) KING FAHD (KFA) BAHRAIN (BAH) *Note 7 ~~Bahrain~~ ~~LOTIT 264856N0511237E~~ TORBO 265223N 0511024E
N764	NOBSU 171554N 0431318E MUKALLAH (RIN) 144015N 0492329E SOCOTRA (SOC) 123749N 0535429E SUHIL 120000N 0550000E NABAM 101112N 0581424E
N767	PARAR 222630N 0630700E VUSIN 225940N 0605510E * Note 7 (OO) ATBED 230352N 0603752E ELIGO 232458N 0590848

	SIBLI 265459N 0462334E AKODI 275012N 0461320E HAFR AL BATIN 281949N 0460746E (HFR)
UN6~~8~~97	MENLI 2947.0N 03152.1E SISIK 2936.0N 03241.0E NUWEIBAA (NWB) * Note 7 (NWB-KITOT below FL350) KITOT 2902.1N 03450.8E ~~*Note 7 (OE)~~ SOBAS 2756.0N 03904.9E HAIL (HIL) *Note 7 (HIL–KFA) BPN 2703.2N 04526.7E *Note 8 (BPN-TORBO) KING FAHD (KFA) BAHRAIN (BAH) *Note 7 ~~Bahrain~~ LOTIT 264856N0511237E TORBO 265223N 0511024E
UN764	NOBSU 171554N 0431318E MUKALLAH (RIN) 144015N 0492329E SOCOTRA (SOC) 123749N 0535429E SUHIL 120000N 0550000E NABAM 101112N 0581424E
UN767	PARAR 222630N 0630700E VUSIN 225940N 0605510E * Note 7 (OO) ATBED 230352N 0603752E ELIGO 232458N 0590848
UN881	RASKI 230330N 0635200E SETSI 230412N 0614410E KIPOL 230410N 0612903E ATBED 230352N 0603752E AMBOS 230324N 0595405 MUSRU 230256N 0592223E *Note 7 (OO) OBTIN 230216N 0585920E GIDAN 230104N 0582232E GEVED 230105N 0575111E TULBU 230005N 0571827E

N929	~~BALUS 254554N 0530424E~~ ~~NOBLA 255111N 0522740E~~ ~~BOSIX 260633N 05155554E~~ ~~TOBLI 262134N 0512301E~~ ~~SIKTA 263232N 0505552E~~ ~~RULEX 264529N 0501745E~~ DASLO 254537N 0523029E *Note 7 & 8 to GIBUS NAGOG 255214N 0521615E BONAN 260201N 0515505E VEDED 260558N 0514628E SOGAT 262029N 0511443E TOSTA 262746N 0504913E DANAG 264438N 0494856E NADNA 264245N 0485309E SILNO 264026N 0475745E ASKOK 262623N 0474809E MUSRI 261647.0N 0474137.0E GIBUS 255724.0N 0472829.0E	UN929	~~BALUS 254554N 0530424E~~ ~~NOBLA 255111N 0522740E~~ ~~BOSIX 260633N 05155554E~~ ~~TOBLI 262134N 0512301E~~ ~~SIKTA 263232N 0505552E~~ ~~RULEX 264529N 0501745E~~ DASLO 254537N 0523029E *Note 7 & 8 to GIBUS NAGOG 255214N 0521615E BONAN 260201N 0515505E VEDED 260558N 0514628E SOGAT 262029N 0511443E TOSTA 262746N 0504913E DANAG 264438N 0494856E NADNA 264245N 0485309E SILNO 264026N 0475745E ASKOK 262623N 0474809E MUSRI 261647.0N 0474137.0E GIBUS 255724.0N 0472829.0E
		UP146	RASHT (RST) AGINA 3919.4N 04405.2E (AGRI) (ARI) (YAVUZ 4002.7N 04226.0E) (TRABZON (TBN)
P300	KAD 334827N 0352910E LATEB 3401.9N 03624.1E	UP300	KAD 334827N 0352910E LATEB 3401.9N 03624.1E
P304	EGROK 235253N 0560126E *Note 7 (OO) MEKNA 233309N 0560815E EGVAN 230127N 0561907E DEMKI 224941N 0562308E NAMVA 223309N 0562223E TOPSO 215653N 0562043E KUROV 211627N 0561853E VELIK 203322N 0561656E	UP304	EGROK 235253N 0560126E *Note 7 (OO) MEKNA 233309N 0560815E EGVAN 230127N 0561907E DEMKI 224941N 0562308E NAMVA 223309N 0562223E TOPSO 215653N 0562043E KUROV 211627N 0561853E VELIK 203322N 0561656E
P307	(SHJ) 251944.9N 0553118.1E Note 7 (OM,OO) TONVO 250500N 0563200E PURNI 243804N 0574354E *Note 8 (OO) KUNUS 241927N 0583226E ALSAS 240054N 0591955E ~~DORAB~~ DERTO 235033N 0594746E VAXIM 231900N 0611100E SETSI 230412N 0614410E PARAR 222630N 0630700E	UP307	(SHJ) 251944.9N 0553118.1E Note 7 (OM,OO) TONVO 250500N 0563200E PURNI 243804N 0574354E *Note 8 (OO) KUNUS 241927N 0583226E ALSAS 240054N 0591955E ~~DORAB~~ DERTO 235033N 0594746E VAXIM 231900N 0611100E SETSI 230412N 0614410E PARAR 222630N 0630700E
P312	MUKALLA (RIN) PAKER 1155.0N0463500E (HARGEISA) HARGA	UP312	MUKALLA (RIN) PAKER 1155.0N0463500E (HARGEISA) HARGA

P316	SALALLAH (SLL) * Note 7 (OO) DAXAM 171612N 0544715E GAGLA 180505N 0552410E GIVNO 195011N 0563059E MOBAB 201032N 0564415E GISKA 213503N 0574014E RADAX 220809N 0580230E MUSCAT (MCT)	UP316	SALALLAH (SLL) * Note 7 (OO) DAXAM 171612N 0544715E GAGLA 180505N 0552410E GIVNO 195011N 0563059E MOBAB 201032N 0564415E GISKA 213503N 0574014E RADAX 220809N 0580230E MUSCAT (MCT)
		UP323	DONSA 1435.3N06511.6E GIDAS 142004N0600000E NODMA 1526.0N05334.0E THAM~~U~~D 1717.0N 04955.0E WDR
P425	DAHRAN (DHA) *Note 8 to ALSER BAHRAIN (BAH) ~~TORNA 263336N 0504212E~~ ALSER 271100N 0504900E	UP425	DAHRAN (DHA) *Note 8 to ALSER BAHRAIN (BAH) ~~TORNA 263336N 0504212E~~ ALSER 271100N 0504900E
P430	DOHA (DOH) *Note 8 to MIDSI BAYAN 252926N 0514849E *Note 7 to MIDSI KAPAX 254218N 0515118E VUTAN 255016N 0515218E BONAN 260201N 0515505E RAMKI 261138N 0515625E ALTOM 262230N 0515639E TOXEL 263020N 0515553E MIDSI 264142N 05155442E	UP430	DOHA (DOH) *Note 8 to MIDSI BAYAN 252926N 0514849E *Note 7 to MIDSI KAPAX 254218N 0515118E VUTAN 255016N 0515218E BONAN 260201N 0515505E RAMKI 261138N 0515625E ALTOM 262230N 0515639E TOXEL 263020N 0515553E MIDSI 264142N 05155442E
P513	BUBAS 245938N 0570003E GERAR 240600N 0573616E ~~MIBSI~~ MIXAM 234139N 0575523E * Note 7 (OO) MUSCAT (MCT)		
		UP517	WAFRA (KFR) GOVAL KMC
		UP552	DATEG 123549N 0471627E ULAXI 141524N 0482317E GINBO 160349N 0494017E IMPOS 183137N 0511848E
P557	NUBAR 220000N 0313806E *~~See~~Note 6 & 7 MISUK 290507N 0290621E KATAB 292501N 0290506E	UP557	NUBAR 220000N 0313806E *~~See~~Note 6 & 7 MISUK 290507N 0290621E KATAB 292501N 0290506E

P559	TURAIF (TRF) *Note 7 to DESDI KAVID 3035.9N 04011.8E TOKLU 2942.1N 04202.4E RASMO 2857.2N 04331.3E KMC ULOVO 274830N 0455420E *Note 8 (ULOVO-NAPLO) MUSKO 2726.7N 04737.1E KEDAT 2721.8N 04759.0E JUBAIL (JBL) GASSI 2702.9N 05022.5E ~~UMAMA 2658.5N 05046.8E~~ ~~LOTIT 2648.9N 05112.6E~~ ~~VUXOR 2553.7N 05322.0E~~ SODAK 264634N 0510530E ASPAK 262115N 0522257E TOMSO 260611N 0530214E NALPO 255602N 0532945E RAPSA 253700N 0541700E DESDI 253603N 0544230E
P570	KITAL 2003N 06018E ~~MIBSI~~ MIXAM 234139N 0575523E

UP559	TURAIF (TRF) *Note 7 to DESDI KAVID 3035.9N 04011.8E TOKLU 2942.1N 04202.4E RASMO 2857.2N 04331.3E KMC ULOVO 274830N 0455420E *Note 8 (ULOVO-NAPLO) MUSKO 2726.7N 04737.1E KEDAT 2721.8N 04759.0E JUBAIL (JBL) GASSI 2702.9N 05022.5E ~~UMAMA 2658.5N 05046.8E~~ ~~LOTIT 2648.9N 05112.6E~~ ~~VUXOR 2553.7N 05322.0E~~ SODAK 264634N 0510530E ASPAK 262115N 0522257E TOMSO 260611N 0530214E NALPO 255602N 0532945E RAPSA 253700N 0541700E DESDI 253603N 0544230E
UP567	BIRJAND (BJD) ODKAT 3540.6N 05457.2E DASHT-E-NAZ (DNZ) 3638.7N 05311.4E (ULDUS -3800.0N 05101.0E) NETON 3945.7N 04811.7E BARUS 4154.2N 04250.5E
UP570	TRIVENDRUM (TVM) POMAN 1156.1N 07200.0E LATEB 1717.1N 06422.0E KITAL 2003N 06018E ~~MIBSI~~ MIXAM 234139N 0575523E
UP574	(BELGAUM) BBM (BISET- 1823.4N 06918.1E) TOTOX 215030N 0622230E * Note 7 (OM, OO) KUSRA 231726N 0585102E ~~MIBSI~~ MIXAM 234138N 0575525E SOLUD 243223N 0564421E GISMO 244743N 0562236E BUBIN 245742N 0560642E TUKLA 2519.6N 05540.2E KUMUN 254000N 0551512E ~~* Note 7 (KUMUN-PAPAR)~~ PAPAR 264000N 0542700E SHIRAZ SAVEH (SAV) ULDUS

		UP634	LALDO 251806N 0563600E *Note 7 ATBOR 251007N 0551947E
		UP693	AL AHSA (HSA) 251644N 0492902E *Note 8 to BUNDU BATHA (BAT) 241257N 0512707E BUNDU 250024N 0522924E
P699	ATBOR 251007N 0551947E *Note 7 (~~OM~~ ATBOR-BAH) SITAT 251105N 0544500E KISAG 251834N 0541408E ITMUS 252322N 0535429E ALSOK 252607N 0533904E ALSOK 252607N 0533904E RUBAL 252957N 0531723E ORMID 253354N 0525434E *Note 8 (ORMID-KFA) SOGAT 262029N 0511443E ASTAD 261812N 0505646E BAHRAIN (BAH) 261551N 0503856E KING FHAD (KFA) 262153N 0494910E ~~LOPOM 252941N 0532817E~~ ~~BALUS 254554N 0530424E~~	UP699	ATBOR 251007N 0551947E *Note 7 (~~OM~~ ATBOR-BAH) SITAT 251105N 0544500E KISAG 251834N 0541408E ITMUS 252322N 0535429E ALSOK 252607N 0533904E ALSOK 252607N 0533904E RUBAL 252957N 0531723E ORMID 253354N 0525434E *Note 8 (ORMID-KFA) SOGAT 262029N 0511443E ASTAD 261812N 0505646E BAHRAIN (BAH) 261551N 0503856E KING FHAD (KFA) 262153N 0494910E ~~LOPOM 252941N 0532817E~~ ~~BALUS 254554N 0530424E~~
P751	AMIBO 3456.7N 2136.4E BRN 3134.5N 02600.3E KATAB 2925.0N 2905.1E AST 2701.9N 03101.9E LUXOR (LXR) ALEBA 2200.0N 03527.0E PORT SUDAN [ASMARA] * Note 1 TOKAR ~~ASSAB~~ 1304.0N 04238.8E PARIM 1231.7N 04327.2E ADEN (KRA) ANGAL 1614.0N 06000.0E ~~(~~MUMBAI~~)~~ (BBB)	UP751	AMIBO 3456.7N 2136.4E BRN 3134.5N 02600.3E KATAB 2925.0N 2905.1E AST 2701.9N 03101.9E LUXOR (LXR) ALEBA 2200.0N 03527.0E PORT SUDAN [ASMARA] * Note 1 TOKAR ~~ASSAB~~ 1304.0N 04238.8E PARIM 1231.7N 04327.2E ADEN (KRA) ANGAL 1614.0N 06000.0E ~~(~~MUMBAI~~)~~ (BBB)
P891	MAGALA (MGA) *Note 7 to KUA KUTEM 264359N 0473521E EGNOV EMILU KUNRU 283220N 0481050E KUWAIT (KUA)	UP891	MAGALA (MGA) *Note 7 to KUA KUTEM 264359N 0473521E EGNOV EMILU KUNRU 283220N 0481050E KUWAIT (KUA)
P899	~~*Note 7 (OO,OM/OB)~~ ~~MIBSI~~ MIXAM 234139N 0575523^{E} *Note 7 to KUPSA	UP899	~~*Note 7 (OO,OM/OB)~~ ~~MIBSI~~ MIXAM 234139N 0575523^{E} *Note 7 to KUPSA

	PAXIM 240245N 05617631E ITRAX 241248N 0554749E AL AIN (ALN) ABU DHABI DASLA N2437.8 E05332.8 VEBAT N2448.5 E05251.0 MEKMA N245430 E0522506 *Note 8 (OB) KUPSA N250445 E0521151
P975	NOLDO 324932N 0452129E *Note7 to ASTAD KATUT 323737N 0453439E DENKI 322228N 0455122E ILMAP 312133N 0465702E PEBAD 305023N 0472958E SIDAD 295231N 0482944E LOVAR 2924.4N 04846.1E SESRA 2908000N 004854.9E DANAL 2851.5N 04904.8E IMDOX 2834.9N 04914.6E LONOS 283027N 0491713E *Note 8 to ASTAD DETKO 280550N 0493130E GASSI 270257N 0502229E TOLMO 2655.1N 05029.4E ~~TORNA 2633.6N 05042.2E~~ ~~MEMBO 262425N 0504737E~~ ASTAD 261812N 0505646E
R2	ATMUL 220000N 0290527E TULOP 252209N 0262226E DITAR 265903N 0250000E
R205	ANARAK (ANK) BIRJAND (BJD)
R219	KUKLA 3414.6N 03444.8E KALDE (KAD)
R401	AMPEX 08 10.0N 055 00.0E SUHIL 1200.0N 05500.0E DAPAP 151115N 0552354E KIVEL 165306N 0553633E ERDAX 175903N 0554458E

	PAXIM 240245N 05617631E ITRAX 241248N 0554749E AL AIN (ALN) ABU DHABI DASLA N2437.8 E05332.8 VEBAT N2448.5 E05251.0 MEKMA N245430 E0522506 *Note 8 (OB) KUPSA N250445 E0521151
UP975	(ELAZIG) EZS *Note7 to ASTAD (DYB) 384225N 0391328E LESRI 370420N 0411348E SIDNA 3634.0N 04141.0E TUBEN 351724N 0425434E MUTAG 343003N 0433834E SOGUM 341212N 0435454E SINKA 332137N 0444753E NOLDO 324932N 0452129E KATUT 323737N 0453439E DENKI 322228N 0455122E ILMAP 312133N 0465702E PEBAD 305023N 0472958E SIDAD 295231N 0482944E LOVAR 2924.4N 04846.1E SESRA 2908000N 004854.9E DANAL 2851.5N 04904.8E IMDOX 2834.9N 04914.6E LONOS 283027N 0491713E *Note 8 to ASTAD DETKO 280550N 0493130E GASSI 270257N 0502229E TOLMO 2655.1N 05029.4E ~~TORNA 2633.6N 05042.2E~~ ~~MEMBO 262425N 0504737E~~ ASTAD 261812N 0505646E
UR2	ATMUL 220000N 0290527E TULOP 252209N 0262226E DITAR 265903N 0250000E
UR205	ANARAK (ANK) BIRJAND (BJD)
UR219	KUKLA 3414.6N 03444.8E KALDE (KAD)
UR401	AMPEX 08 10.0N 055 00.0E SUHIL 1200.0N 05500.0E DAPAP 151115N 0552354E KIVEL 165306N 0553633E ERDAX 175903N 0554458E

	HAIMA (HAI) DEMKI 224941N 0562308E MUSAP 241754N 0555245E *Note 7 (MUSAP-GIDIS) *Note 8 (MUSAP-DARAX) GIDIS 243600N 0555600E RAS AL KHAIMAH (RAK) DARAX GHESHM (KHM)		HAIMA (HAI) DEMKI 224941N 0562308E MUSAP 241754N 0555245E *Note 7 (MUSAP-GIDIS) *Note 8 (MUSAP-DARAX) GIDIS 243600N 0555600E RAS AL KHAIMAH (RAK) DARAX GHESHM (KHM)
R402	LAKLU 232235N 0570401E *Note 7 (OO) HAIMA (HAI)	UR402	LAKLU 232235N 0570401E *Note 7 (OO) HAIMA (HAI)
R462	(JIWANI) JI DENDA 2442.5N 06054.8E VUSET 235540N 0590812E *Note 7 (OO) ~~MIBSI~~ MIXAM 234139N 0575523E	UR462	(JIWANI) JI DENDA 2442.5N 06054.8E VUSET 235540N 0590812E *Note 7 (OO) ~~MIBSI~~ MIXAM 234139N 0575523E
R650	ASRAB 2547.4N 03306.3E HURGHADA (HGD) SHARM EL SHEIKH (SHM) NUWEIBAA (NWB) NALSO 2932.0N 03453.0E	UR650	ASRAB 2547.4N 03306.3E HURGHADA (HGD) SHARM EL SHEI KH (SHM) NUWEIBAA (NWB) NALSO 2932.0N 03453.0E
R652	METSA 2930.0N 03500.0E QATRANEH (QTR) GURIAT (GRY) *Note 7(OE) TURAIF (TRF) OVANO 3148.0N 03909.8E DAXAN 320512N 0393719E GIBUX 330500N 0411100E RAPLU 332300N 0414530E GEPAP 334906N 0422851E MUTAG 343003N 0433834E IVANO 351724N 0451235E	UR652	METSA 2930.0N 03500.0E QATRANEH (QTR) GURIAT (GRY) *Note 7(OE) TURAIF (TRF) OVANO 3148.0N 03909.8E
R654	ZANJAN (ZAJ) SAVEH (SAV) ESFAHAN (ISN) YAZD (YZD) KERMAN (KER) NABOD 2816.1N 05825.3E CHAH BAHAR (CBH) EGPIC 2508.6N 06029.5E	UR654	MAGRI 385408N 0462300E ZANJAN (ZAJ) SAVEH (SAV) ESFAHAN (ISN) YAZD (YZD) KERMAN (KER) NABOD 2816.1N 05825.3E CHAH BAHAR (CBH) EGPIC 2508.6N 06029.5E
R655	(LARNACA) LCA	UR655	(LARNACA)

	CHEKA (CAK) KARIATAIN (KTN)
R659	TEHRAN(TRN) *Note 7 (ISN-TRN) BOXAM 343749N 0515147E DAPOG 333744N 0522331E *Note 3 (DAPOG-SYZ) SHIRAZ (SYZ) MIDSI 264142N 0515442E *Note 8 (MIDSI-DOH) *Note 7 (MIDSI-VELAM) SOGAN 263915N 0515408E ROSAN 263129N 0515220E DASOS 262430N 0515043E RABLA 261506N 0514834E VEDED 260558N 0514628E VELAM 255426N 0514347E EMISA 254626N 0514207E DOHA (DOH)
R660	(ERZURUM) (ERZ) DASIS 38 54.5N 044 12.5E TABRIZ (TBZ) RASHT (RST) TEHRAN (TRN)
R661	DULAV 3857.0N 04537.9E TABRIZ (TBZ) ZANJAN (ZAJ) RUDESHUR (RUS) VARAMIN (VR) DEHNAMAK (DHN)
R777	DANAK 1608.0N 04129.0E SANA'A TAIZ ARABO 1238.8N 04404.0E TORBA 1210.6N 04402.1E

	CHEKA (CAK) KARIATAIN (KTN)
UR659	TEHRAN(TRN) *Note 7 (ISN-TRN) BOXAM 343749N 0515147E DAPOG 333744N 0522331E *Note 3 (DAPOG-SYZ) SHIRAZ (SYZ) MIDSI 264142N 0515442E *Note 8 (MIDSI-DOH) *Note 7 (MIDSI-VELAM) SOGAN 263915N 0515408E ROSAN 263129N 0515220E DASOS 262430N 0515043E RABLA 261506N 0514834E VEDED 260558N 0514628E VELAM 255426N 0514347E EMISA 254626N 0514207E DOHA (DOH)
UR660	(ERZURUM) (ERZ) RASHT (RST) TEHRAN (TRN)
UR661	DULAV 3857.0N 04537.9E TABRIZ (TBZ) ZANJAN (ZAJ) RUDESHUR (RUS) VARAMIN (VR) DEHNAMAK (DHN)
UR674	SABEL 185158N 0520339E LOTEL 180926N 0514103E PASUL 180341N 0513803E GOGRI 170752N 0510857E OBTAS 164633N 0505756E RARBA 161021N 0503920E UKORA 152407N 0501547E NAKAD 150056N 0500402E DANAN 144010N 0495334E XABIL 142924N 0494809E EMABI 141627N 0494139E PAXED 135027N 0492759E DEMGO 120258N 0483040E
UR777	DANAK 1608.0N 04129.0E SANA'A TAIZ ARABO 1238.8N 04404.0E TORBA 1210.6N 04402.1E

R784	SHARJAH (SHJ) ORSAR 2604.5N 05357.5E *Note 8 (OM) DURSI 2712.3N 05201.7 E IMDAT 2740.0N 05113.0E ALNIN 2840.9N 05001.6E NANPI 290457N 0493157E SIDAD 295231N 0482944E	UR784	SHARJAH (SHJ) ORSAR 2604.5N 05357.5E *Note 8 (OM) DURSI 2712.3N 05201.7 E IMDAT 2740.0N 05113.0E ALNIN 2840.9N 05001.6E NANPI 290457N 0493157E SIDAD 295231N 0482944E
R785	TURAIF (TRF) ZELAF 3257.0N 03800.0E KARIATAIN (KTN) BANIAS (BAN) NIKAS 3511.6N 03543.0E	UR785	TURAIF (TRF) ZELAF 3257.0N 03800.0E KARIATAIN (KTN) BANIAS (BAN) NIKAS 3511.6N 03543.0E
R794	ULDUS 3810.0N 05020.0E NOSHAHR (NSR) DEHNAMAK (DHN) TABAS (TBS) BIRJAND (BJD) * Note 5 (OI)	UR794	ULDUS 3810.0N 05020.0E NOSHAHR (NSR) DEHNAMAK (DHN) TABAS (TBS) BIRJAND (BJD) * Note 5 (OI)
R799	IMPOS 183136N 0511848 E PASUL 180341N 0513803E TONRO 165850N 0522235E ASMAK 162327N 0524634E ENADO 153333N 0532015E	UR799	IMPOS 183136N 0511848 E PASUL 180341N 0513803E TONRO 165850N 0522235E ASMAK 162327N 0524634E ENADO 153333N 0532015E

ARN TF/6
Appendix 3B to the Report on Agenda Item 3

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

(Serial No. MID Basic ANP 13/02 - ATM)

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)

Amend requirement for ATS routes: A1/UA1, A727/UA727, B411/UB411, B415/UB415, B416/UB416, B419/UB419, G462/UG462, G652/UG652, G663/UG663, G667/UG667, G782/UG782, L305, L308/L308, L310/UL310, L440/UL440, L564/UL564, L604/UL604, UL607, L617/UL617, L681/UL681, UL768, M305/UM305, M312/UM312, M430/UM430, M557/UM557, M872/UM872, N300/UN300, N307/UN307, N318/UN318, N563/UN563, UN569, N571/UN571, N685/UN685, N687/UN687, N697/UN697, N929/UN929, P307/UP307, P425/UP425, P430/UP430, P513, P559/UP559, P570/UP570, UP574, UP634, UP693, P699/UP699, P751/UP751, UP891, P899/UP899, R401/UR401, R462/UR462, R659/UR659 and R784/UR784 as follows:

A1	METRU 340000N 0250900E SOKAL 323601N 0273706E KATEX 320701N 0282436E BOPED 312939N 0292655E ALEXANDRIA (~~AXD~~ NOZ) 311113N 0295701E MENKU 310531N 0301806E CAIRO (CVO) 300532N 0312318E	UA1	METRU 340000N 0250900E SOKAL 323601N 0273706E KATEX 320701N 0282436E BOPED 312939N 0292655E ALEXANDRIA (~~AXD~~ NOZ) 311113N 0295701E MENKU 310531N 0301806E CAIRO (CVO) 300532N 0312318E
A411	BNINA (BNA) 3207~~.5~~28N 0201513E NASER 3151.2N 2355.3E LOSUL 314100N 250800E SIDI BARANI (BRN) 3135324~~.5~~N 260020~~.3~~	UA411	BNINA (BNA) 3207~~.5~~28N 0201513E NASER 3151.2N 2355.3E LOSUL 314100N 250800E SIDI BARANI (BRN) 3135324~~.5~~N 260020~~.3~~E
A727	~~(~~PAXIS 3357.1N 02720.0E OTIKO 3134.3N 02936.6E ALEXANDRIA (~~AXD~~NOZ) MENKU 3105.5N 03018.1E CAIRO (CVO) LUXOR (LXR) ABU SIMBLE (SML) NUBAR 220000N 03118.1E MEROWE (MRW) KHARTOUM (KTM) KENANA (KNA) LODWAR (LOV) NAKURU (NAK) NAIROBI (NV) KILIMANJARO (KV)	UA727	~~(~~PAXIS 3357.1N 02720.0E OTIKO 3134.3N 02936.6E ALEXANDRIA (~~AXD~~NOZ) MENKU 3105.5N 03018.1E CAIRO (CVO) LUXOR (LXR) ABU SIMBLE (SML) NUBAR 220000N 03118.1E MEROWE (MRW) KHARTOUM (KTM) KENANA (KNA) LODWAR (LOV) NAKURU (NAK) NAIROBI (NV) KILIMANJARO (KV)
B411	METSA 2930.0N 03500.0E AL SHIGAR (ASH) ARAR (AAR) MURIB 311337N 0415136E LOVEK 3222.1N 04440.0E NOLDO 3249.5N 04521.5E PAXAT 332056N 0460519E ILAM (ILM)	UB411	METSA 2930.0N 03500.0E AL SHIGAR (ASH) ARAR (AAR) MURIB 311337N 0415136E LOVEK 3222.1N 04440.0E NOLDO 3249.5N 04521.5E PAXAT 332056N 0460519E ILAM (ILM)

	KERMANSHAH(KMS) SAVEH (SAV) [TEHRAN] (TRN) * Note 1 DEHNAMAK (DHN) SABZEVAR (SBZ) MASHHAD (MSD)
B415	DOHA (DOH) * Note 8 (DOH-BUNDU) AFNAN 2508.9N 05155.9E BUNDU 2500.4N 05229.4E * Note 7 (BUNDU-ADV) GADVO 2441.4N 05343.0E KUNGU 2437.9N 05356.4E ABU DHABI ADV 2425.1N 05440.4E
B416	KUWAIT (KUA) AMBIK 283222N 0492025E *Note 8 (AMBIK-KUVER) TESSO 282852N 0492723E GEVAL 283625N 0492722E GOGMA 281421N 0495612E KUVER 280924N 0500600E IMDAT 2741.0N 05111.0E ORSAR 2604.5N 05357.5E PEBAT 2551.9N 05423.9E DESDI 2536.0N 05442.5E
B419	(DHA) 261538N 0500824E *Note 8 (DHA-RAMSI) KING FAHD (KFA) *Note 7 (KFA-RAMSI) ASTOM 265552N 0500408E RAMSI 270249N 0500714E
G462	~~* Note 7 between ROVOS and BALUS~~ ~~BALUS 254554N 0530424E~~ ROVOS 241825N 0552143E *Note 7 to ITROK NIBAX 245748N 0541437E RAGTA 250850N 0535840E ALSOK 252607N 0533904E ITROK 253557N 0532751E TUMAK 255031N 0531108E
G652	ADEN (KRA) IMPOS 183136N 0511848E DUDRI 190000N 0520000E *Note 8 (DUDRI-TOKRA) TOKRA 220925N 0553350E TAPDO 2424N 06120 E
G663	KING KHALID (KIA) *Note 7 (KIA-KFA) GIBUS 255724N 0472829E *Note 8 (GIBUS-ALSER) SILNO 2640.4N 04757.7E KING FAHD (KFA) ALSER 2710.8 05049.5**E**

	KERMANSHAH(KMS) SAVEH (SAV) [TEHRAN] (TRN) * Note 1 DEHNAMAK (DHN) SABZEVAR (SBZ) MASHHAD (MSD)
UB415	DOHA (DOH) * Note 8 (DOH-BUNDU) AFNAN 2508.9N 05155.9E BUNDU 2500.4N 05229.4E * Note 7 (BUNDU-ADV) GADVO 2441.4N 05343.0E KUNGU 2437.9N 05356.4E ABU DHABI ADV 2425.1N 05440.4E
UB416	KUWAIT (KUA) AMBIK 283222N 0492025E *Note 8 (AMBIK-KUVER) TESSO 282852N 0492723E GEVAL 283625N 0492722E GOGMA 281421N 0495612E KUVER 280924N 0500600E IMDAT 2741.0N 05111.0E ORSAR 2604.5N 05357.5E PEBAT 2551.9N 05423.9E DESDI 2536.0N 05442.5E
UB419	(DHA) 261538N 0500824E *Note 8 (DHA-RAMSI) KING FAHD (KFA) *Note 7 (KFA-RAMSI) ASTOM 265552N 0500408E RAMSI 270249N 0500714E
UG462	~~* Note 7 between ROVOS and BALUS~~ ~~BALUS 254554N 0530424E~~ ROVOS 241825N 0552143E *Note 7 to ITROK NIBAX 245748N 0541437E RAGTA 250850N 0535840E ALSOK 252607N 0533904E ITROK 253557N 0532751E TUMAK 255031N 0531108E
UG652	ADEN (KRA) IMPOS 183136N 0511848E DUDRI 190000N 0520000E *Note 8 (DUDRI-TOKRA) TOKRA 220925N 0553350E TAPDO 2424N 06120 E
UG663	KING KHALID (KIA) *Note 7 (KIA-KFA) GIBUS 255724N 0472829E *Note 8 (GIBUS-ALSER) SILNO 2640.4N 04757.7E KING FAHD (KFA) ALSER 2710.8 05049.5E

	SHIRAZ (SYZ)
	YAZD (YZD)
	NODLA 3253.3N 05458.8E
	TABAS (TBS)
	MASHAD (MSD)

G667	PUTMA 3748.0N 05157.6E
	NOSHAHR (NSR)
	TEHRAN (TRN)
	SAVEH (SAV)
	MIS
	AHWAZ (AWZ)
	ABADAN (ABD)
	ALSAN 295707N 0481456E
	FALKA
	KUWAIT (KUA)
	WAFRA (KFR)
	*Note 7 (KFR-MGA)
	COPPI 275033N 0474359E
	*Note 8 (COPPI-AVOBO)
	EMENI 273232N 0473849E
	MUSKO 272640N 0473708E
	ALSAT 270611N 0473118E
	LUGAL 264533N 0472528E
	MAGALA (MGA)
	AVOBO 260334N 0470719E
	KING KHALID (KIA)
	WADI AL DAWASIR (WDR)
	NEJRAN (NEJ)
	SANA'A (SAA)
	PARIM 123143N 0432712E
	DJIBOUTI (DTI)

UG667	PUTMA 3748.0N 05157.6E
	NOSHAHR (NSR)
	TEHRAN (TRN)
	SAVEH (SAV)
	MIS
	AHWAZ (AWZ)
	ABADAN (ABD)
	ALSAN 295707N 0481456E
	FALKA
	KUWAIT (KUA)
	WAFRA (KFR)
	*Note 7 (KFR-MGA)
	COPPI 275033N 0474359E
	*Note 8 (COPPI-AVOBO)
	EMENI 273232N 0473849E
	MUSKO 272640N 0473708E
	ALSAT 270611N 0473118E
	LUGAL 264533.0N 0472528.0E
	MAGALA (MGA)
	AVOBO 260334N 0470719E
	KING KHALID (KIA)
	WADI AL DAWASIR (WDR)
	NEJRAN (NEJ)
	SANA'A (SAA)
	PARIM 123143N 0432712E
	DJIBOUTI (DTI)

G782	KING ABDULAZIZ (JDW)
	DAFINAH (DFN)
	RAGA\HBA (RGB)
	KING KHALID (KIA)
	MAGALA (MGA)
	*Note 7 (MGA-KFR)
	LUGAL 264533N 0472528E
	WAFRA (KFR) 283715N 0475729E
	KUWAIT (KUA)

UG782	KING ABDULAZIZ (JDW)
	DAFINAH (DFN)
	RAGA\HBA (RGB)
	KING KHALID (KIA)
	MAGALA (MGA)
	*Note 7 (MGA-KFR)
	LUGAL 264533N 0472528E
	WAFRA (KFR) 283715N 0475729E
	KUWAIT (KUA)

L305	DOHA (DOH)
	*Note 7 (DOH-ITITA)
	*Note 8 (DOH-ASTOG)
	ASTOG 252822N 0525025E
	ITITA 2544.2N 05418.7E

L308	EGNOV 270301N 0474713E
	*Note 7 (EGNOV- SERSA)
	*Note 8 (EGNOV- OBNET)
	(JBL) 270220N 0492427E
	RAMSI 270249N 0500714E
	GASSI 2702.9N 05022.5E
	~~UMAMA 2658.5N 05046.8E~~
	~~LOTIT 2648.9N 05112.6E~~
	~~NADAM 255854N 0533933E~~
	TOSDA 270005N 0505629E
	TORBO 265223N 0511024E
	SOGAN 263915N 0515408E
	DEGSO 261054N 0531946E

UL308	EGNOV 270301N 0474713E
	*Note 7 (EGNOV- SERSA)
	*Note 8 (EGNOV- OBNET)
	(JBL) 270220N 0492427E
	RAMSI 270249N 0500714E
	GASSI 2702.9N 05022.5E
	~~UMAMA 2658.5N 05046.8E~~
	~~LOTIT 2648.9N 05112.6E~~
	~~NADAM 255854N 0533933E~~
	TOSDA 270005N 0505629E
	TORBO 265223N 0511024E
	SOGAN 263915N 0515408E
	DEGSO 261054N 0531946E

	OBNET 260032N 0534514E ITITA 254410N 0541839E DESDI 253603N 0544230E RAGOL 252743N 0550739E SERSA 251945N 0553118E TUKLA 251936N 0554010E NADNI 251915N 0555658E LALDO 251806N 0563600E ~~SHARJAH (SHJ) 2519.7N 05531.3E~~ IMLOT 2517.1N 05708.1E KATUS 2515.9N 05747.0E DIVAB 2510.7N 05952.1E EGPIC 2508.6N 06029.5E (JIWANI) LATEM 2431.7N 06449.7E		OBNET 260032N 0534514E ITITA 254410N 0541839E DESDI 253603N 0544230E RAGOL 252743N 0550739E SERSA 251945N 0553118E TUKLA 251936N 0554010E NADNI 251915N 0555658E LALDO 251806N 0563600E ~~SHARJAH (SHJ) 2519.7N 05531.3E~~ IMLOT 2517.1N 05708.1E KATUS 2515.9N 05747.0E DIVAB 2510.7N 05952.1E EGPIC 2508.6N 06029.5E (JIWANI) LATEM 2431.7N 06449.7E
L310	BOXAK 244536N 0540032E *Note 7 & 8 to LALDO SIGBO 2455.4N 05456.9E NALTA 2502.7N 05539.8E AVAMI 2505.9N 05556.8E LALDO 251806N 0563600E	UL310	BOXAK 244536N 0540032E *Note 7 & 8 to LALDO SIGBO 2455.4N 05456.9E NALTA 2502.7N 05539.8E AVAMI 2505.9N 05556.8E LALDO 251806N 0563600E
L440	KANIP 2410.7N 05520.7E *Note 7 RETAS 235754N 0553423E	UL440	KANIP 2410.7N 05520.7E *Note 7 RETAS 235754N 0553423E
L564	DOHA (DOH) *Note 8 (DOH-PURDA) NAJMA 250346N 0513908E BATHA (BAT) 241257N 0512707E MIGMA 225035N 0512749E 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	UL564	DOHA (DOH) *Note 8 (DOH-PURDA) NAJMA 250346N0513908E BATHA (BAT) 241257N 0512707E MIGMA 225035N 0512749E PURDA 210805N 0510329E ASTIN 200410N 0495320E SHARURAH (SHA) ATBOT 171418N 0464706E RAGNI 63454N 0454815E LOPAD 161651N 0453738E ITOLI 152825N 0450927E OBNAM 144541N 0444448E GEVEL 141229N 0442547E NOPVO 135436N 0441536E TAZ 134149.53N 0440818.98E PARIM 123142N 0432712E
L604	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 (GAS) 2617.9N 04346.8E *Note 7 (GAS-KFA) PUSLA 261758N 0461706E *Note 8 to TOSNA MGA 2617.3N 04712.4E ALMAL 2615.9N 04821.1E KING FAHD (KFA) 2621.9N 04949.2E BAHRAIN (BAH) ASNIX 260452N 0510509E	UL604	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 (GAS) 2617.9N 04346.8E *Note 7 (GAS-KFA) PUSLA 261758.0N 0461706.0E *Note 8 to TOSNA MGA 2617.3N 04712.4E ALMAL 2615.9N 04821.1E KING FAHD 2621.9N 04949.2E BAHRAIN (BAH) ASNIX 260452N 0510509E

	PATOM 255821N 0511836E EMISA 254658N 0514207E KAPAX 254218N 0515118E ORSIS 252801N 0521636E ENANO 252348N 0522559E TOSNA 251612N 0524116E		PATOM 255821N 0511836E EMISA 254658N 0514207E KAPAX 254218N 0515118E ORSIS 252801N 0521636E ENANO 252348N 0522559E TOSNA 251612N 0524116E
		UL607	SITIA (SIT) * Note 7 PAXIS 3357.1N02720.0E OTIKO 3134.4N 02936.6E ALEXANDRIA (~~AXD~~NOZ)
L617	ALEXANDRIA ~~AXD~~ NOZ IMRUT 313259N 0293346E ASNIR 323849N 0282144E TANSA 340000N 0264900E	UL617	ALEXANDRIA ~~AXD~~ NOZ IMRUT 313259N 0293346E ASNIR 323849N 0282144E TANSA 340000N 0264900E
L681	EGNOV 270301N 0474713E * Note 5 & 7 & 8 to SALWA GEPAK 2633.0N 04843.5E RADMA 2623.0N 04857.5E DELMU 2618.9N 04903.4E ROSEM 2607.7N 04919.0E SALWA 251538N 0503048E	UL681	EGNOV 270301N 0474713E * Note 5 & 7 & 8 to SALWA GEPAK 2633.0N 04843.5E RADMA 2623.0N 04857.5E DELMU 2618.9N 04903.4E ROSEM 2607.7N 04919.0E SALWA 251538N 0503048E
		UL768	~~BALUS 254554N 0530424E~~ ~~ELAXI 260000N 0523500E~~ ~~IMTAS 281800N 0515700E~~ ~~DAXAS 2621.3N 0515000E~~ ~~ASMOR 2636.7 0511700E~~ ~~TOLMO 265504N 0502927E~~ ~~RAMSI 270249N 0500714E~~ ~~ALVUN 271028N 0494455E~~ ~~KISAB 272335N 0490606E~~ ALPOB 254218N 0530055E * Note 7 to FIRAS * Note 8 (ALPOB-COPPI) ROTAG 255353N 0523621E SOLEG 260159N 0521756E RAMKI 261138N 0515625E RABLA 261506N 0514834E SOLOB 262241N 0513132E MEDMA 263421N 0505454E TOTLA 263806N 0504301E COPPI 2750.6N04744.0E HFR VATIM 2851.6N 04444.7E RAFHA (RAF) ARAR (AAR) OVANO3148.0N 03909.9E OTILA 3201.5N 03901.9E MODAD 3235.7N 03841.6E SOKAN 3308.1N 03822.1E RAFIF 3312.8N 03819.3E SULAF 3327.3N 03810.4E FIRAS 3352.3N 03755.2E
M305	BRN 3134.5N 02600.3E ATMUL 200000N 2905.4E *Note 3	UM305	BRN 3134.5N 02600.3E ATMUL 200000N 2905.4E *Note 3
M312	DBA 3100.7N 02828.0E	UM312	DBA 3100.7N 02828.0E

AMIBO 3456.7N 2136.4E
*Note 3 (HE)

M430 *Note 5 (KIA-DOH)
KING KHALID (KIA)
KOBOX 250716N 0475046E
KIREN 251447.0N 0490724.0E
*Note 8 (KIREN-TOSNA)
HAS 2516.7N04929E
LAGNO 251613N 0511518E
DOHA (DOH)
*Note 7 (DOH-KISAG)
TOSNA 251612N 0524116E
~~• Note 5(OE,OB)~~
KISAG 251834N 0541408E

M557 ATBOR 251007N 0551947E
*Note7 ~~(OM) *Note~~ & 8 to MIDSI
~~(OM)~~
NADIL 252252N 0544717E
NABOP 252607N 0540405E
EMAGO 253456N 0535751E
VUVOK 254408N 0533024E
TUMAK 255031N 0531108E
ALTOM 262230N 0515639E
TOXEL 263020N 0515553E
MIDSI 264142N 0515442E
~~KUVAX 253223N 0540825E~~
~~TUDAX 254440N 0531655E~~
~~BALUS 254554N 0530424E~~

M872 PLH 3513.7N 02340.9E
*Note 7 (PLH-DBA)
METRU 340000N 0250900E
KANAR 322727N 0265330E
EL DABA (DBA) 310041N 0282801E
FYM 2923.8N 03023.6E
*Note 7 (FYM-SEMRU)
SEMRU 280200N 0320306E
HURGHADA (HGD)
SILKA 263400N 0352900E
WEJH (WEJ) 261046N 0362917E
KODIN 2517.9N 03836.2E
MADINAH (PMA)
*Note 7 (PMA-MIDSI)
BIR DARB (BDB)
AL DAWADMI (DAW)
KING KHALID (KIA)
AKRAM 255036N 0475133E
*Note 8 to MIDSI
ALMAL 261553N 0482108E
DAVRI 264936N 0505732E
~~LOTIT 264856N0511237E~~
MIDSI 264142N 0515442E

N300 DOH 2514N 05134.6E
*Note 7 & 8 to TONVO
NAMLA 2505.5N 05233.3E
~~*Note 7/8 (OM)~~

AMIBO 3456.7N 2136.4E
*Note 3 (HE)

UM430 *Note 5 (KIA-DOH)
KING KHALID (KIA)
KOBOX 250716N 0475046E
KIREN 251447.0N 0490724.0E
*Note 8 (KIREN-TOSNA)
HAS 2516.7N 04929.0E
LAGNO 251613N 0511518E
DOHA (DOH)
*Note 7 (DOH-KISAG)
TOSNA 251612N 0524116E
~~• Note 5(OE,OB)~~
KISAG 251834N 0541408E

UM557 ATBOR 251007N 0551947E
*Note7 &~~(OM) *Note~~ 8 to MIDSI
~~(OM)~~
NADIL 252252N 0544717E
NABOP 252607N 0540405E
EMAGO 253456N 0535751E
VUVOK 254408N 0533024E
TUMAK 255031N 0531108E
ALTOM 262230N 0515639E
TOXEL 263020N 0515553E
MIDSI 264142N 0515442E
~~KUVAX 253223N 0540825E~~
~~TUDAX 254440N 0531655E~~
~~BALUS 254554N 0530424E~~

UM872 PLH 3513.7N 02340.9E
*Note 7 (PLH-DBA)
METRU 340000N 0250900E
KANAR 322727N 0265330E
EL DABA (DBA) 310041N 0282801E
FYM 2923.8N 03023.6E
*Note 7 (FYM-SEMRU)
SEMRU 280200N 0320306E
HURGHADA (HGD)
SILKA 263400N 0352900E
WEJH (WEJ) 261046N 0362917E
KODIN 2517.9N 03836.2E
MADINAH (PMA)
*Note 7 (PMA-MIDSI)
BIR DARB (BDB)
AL DAWADMI (DAW)
KING KHALID (KIA)
AKRAM 255036N 0475133E
*Note 8 to MIDSI
ALMAL 261553N 0482108E
DAVRI 264936N 0505732E
~~LOTIT 264856N0511237E~~
MIDSI 264142N 0515442E

UN300 DOH 2514N 05134.6E
*Note 7 & 8 to TONVO
NAMLA 2505.5N 05233.3E
~~*Note 7/8 (OM)~~

	BOXAK 244536N 0540032E MIADA 245112N 0545736E TONVO 250500N 0563200E		BOXAK 244536N 0540032E MIADA 245112N 0545736E TONVO 250500N 0563200E
N307	~~MILAD~~MELDO 320201N 0310406E LAKTO 323800N 0320500E	UN307	~~MILAD~~MELDO 320201N 0310406E LAKTO 323800N 0320500E
N318	QAA 314423N 0360926E ALNOR 313955N 0362507E KINUR 313626N 0363714E ELOXI 313359N 0364536E GENEX 3129.6N 3700.9E GURIAT (GRY) ORKAS 3047.4N 03846.3 E NEVOL 3024.7N 03938.6E VELAL2946.0N 04038.4E TAMRO 2838.6N 04240.8E * Note7 (OE, OB, OM, OO) MOGON 2738.8N 04445.9E TAGSO 272744N 0454510E *Note 8 (OB, OO) EGNOV 270301N 0474713E KUSAR 264741N 0490218E ASPAN 263255N 0494903E ~~MEMBO 262425N 0504737E~~ DEDAS 263011N 0501427E ASTAD 261812N 0505646E VUTAN 255016N 0515218E RESAR 253707N 0522328E UMABA 252703N 0524322E OVONA 252443N 0524739E ~~VATEL 255520N 0515353E~~ ~~LOXAT 252140N 0524523E~~ ~~* Note7 (OM/OO)~~ (segment LOXAT - REXOD KATIK 2517.1N 05315.2E KANIP 2410.7N 05520.7E LABRI 240344N 0553842E ~~* Note 8 (OO)~~ EGROK 235253N 0560126E LAKLU 232235N 0570401E GEVED 230105N 0575111E TOLDA 223720N 0583503E REXOD211230N 0613830E	UN318	QAA 314423N 0360926E ALNOR 313955N 0362507E KINUR 313626N 0363714E ELOXI 313359N 0364536E GENEX 3129.6N 3700.9E GURIAT (GRY) ORKAS 3047.4N 03846.3 E NEVOL 3024.7N 03938.6E VELAL2946.0N 04038.4E TAMRO 2838.6N 04240.8E * Note7 (OE, OB, OM, OO) MOGON 2738.8N 04445.9E TAGSO 272744N 0454510E *Note 8 (OB, OO) EGNOV 270301N 0474713E KUSAR 264741N 0490218E ASPAN 263255N 0494903E ~~MEMBO 262425N 0504737E~~ DEDAS 263011N 0501427E ASTAD 261812N 0505646E VUTAN 255016N 0515218E RESAR 253707N 0522328E UMABA 252703N 0524322E OVONA 252443N 0524739E ~~VATEL 255520N 0515353E~~ ~~LOXAT 252140N 0524523E~~ ~~* Note7 (OM/OO)~~ (segment LOXAT-REXOD) KATIK 2517.1N 05315.2E KANIP 2410.7N 05520.7E LABRI 240344N 0553842E ~~* Note 8 (OO)~~ EGROK 235253N 0560126E LAKLU 232235N 0570401E GEVED 230105N 0575111E TOLDA 223720N 0583503E REXOD211230N 0613830E
N563	REXOD 211230N 0613830E *Note 8 (OB, OM) *Note 7 (OB, OO, OM) EMURU 221357N 0585338E TULBU 230005N 0571827E MEKNA 223309N 0560815E ~~*Note 8 (OO)~~ SODEX 234954N 0553202E NOBTO 235525N 0551840E ADV ~~BALUS 254554N 0530424E~~ MEMBI 243705N 0542631E ATBEX 250739N 0535019E ITROK 253557N 0532751E ALPOB 254218N 0530055E	UN563	(BANGALORE) BBG *Note 8 (OB, OM) REXOD 211230N 0613830E *Note 7 (OB, OO, OM) EMURU 221357N 0585338E TULBU 230005N 0571827E MEKNA 223309N 0560815E ~~*Note 8 (OO)~~ SODEX 234954N 0553202E NOBTO 235525N 0551840E ~~BALUS 254554N 0530424E~~ MEMBI 243705N 0542631E ATBEX 250739N 0535019E ITROK 253557N 0532751E ALPOB 254218N 0530055E

	ROTAG 255353N 0523621E SOLEG 260159N 0521756E SOLOB 262241N 0513132E MEDMA 263412N 0505454E TOTLA 263806N 0504301E RULEX 264529N 0501745E SILNO 264026N 0475745E GIBUS 255724N 0472829E		ROTAG 255353N 0523621E SOLEG 260159N 0521756E SOLOB 262241N 0513132E MEDMA 263412N 0505454E TOTLA 263806N 0504301E RULEX 264529N 0501745E SILNO 264026N 0475745E GIBUS 255724N 0472829E
		UN569	RABTO 221608N 0400326E LOTOS *Note~~:~~ 7 (~~OB/OO~~LOTOS-GOLNI) TOKRA 220925N 0553350E TOPSO 215653N 0562043E MOGOK 215057N 0564236E KEBAS 214330N 0570948E GISKA 213503N 0574014E UMILA 211555N 0584738E GOLNI 210014N 0594130E LOTAV 203700N 0605700E
N571	PARAR 2226.5 N 06307E *Note 7 & 8 (OB, OM, OO) KIPOL 230410N 0612903E RAGMA 230600N 0610539E SODEB 234747N 0593023E VUSET 235540N 0590812E KIROP 243000N 0574700E ~~*Note 8 (OO)~~ MENSA 245750N 0563249E AVAMI 250554N 0555647E ~~* Note 7 (OO OM)~~ ATBOR 251007N 0551947E ~~* Note 8 (OM)~~ MUVLA 251716N 0544500E SENTO 251908N 0544500E ELUKU 252910N 0535610E ITROK 253557N 0532751E ALPOB 254218N 0530055E SOLOB 262241N 0513132E MEDMA 263412N 0505454E TOTLA 263806N 0504301E RULEX 264529N 0501745E SILNO 264026N 0475745E KUTEM 264359N 0473521E BOPAN (BPN) 270314N 0452642E ~~VAVIL 253906N 0531426E~~ ~~BALUS 254554N 0530424E~~	UN571	(GUN~~P~~IP 0429.9N 09931.8E) (VAMPI 0610.9N 09735.1E) (MEKAR 0630.2N 06929.5E) (SUGID- 1933.1 N 06921.0E) PARAR 2226.5 N 06307E *Note 7 & 8 (OB, OM, OO) KIPOL 230410N 0612903E RAGMA 230600N 0610539E SODEB 234747N 0593023E VUSET 235540N 0590812E KIROP 243000N 0574700E ~~*Note 8 (OO)~~ MENSA 245750N 0563249E AVAMI 250554N 0555647E ~~* Note 7 (OO OM)~~ ATBOR 251007N 0551947E ~~* Note 8 (OM)~~ MUVLA 251716N 0544500E SENTO 251908N 0544500E ELUKU 252910N 0535610E ITROK 253557N 0532751E ALPOB 254218N 0530055E SOLOB 262241N 0513132E MEDMA 263412N 0505454E TOTLA 263806N 0504301E RULEX 264529N 0501745E SILNO 264026N 0475745E KUTEM 264359N 0473521E BOPAN (BPN) 270314N 0452642E ~~VAVIL 253906N 0531426E~~ ~~BALUS 254554N 0530424E~~
N685	TAGSO 272744N 0454510E *Note 7 (TAGSO-KUSAR) *Note 8 (TAGSO-TOSNA) DEBOL 272116N 0461843E TORTA 271906N 0462911E ALSAT 270611N 0473118E EGNOV 270301N 0474713E KUSAR 264741N 0490218E KING FAHAD (KFA)	UN685	TAGSO 272744N 0454510E *Note 7 (TAGSO-KUSAR) *Note 8 (TAGSO-TOSNA) DEBOL 272116N 0461843E TORTA 271906N 0462911E ALSAT 270611N 0473118E EGNOV 270301N 0474713E KUSAR 264741N 0490218E KING FAHAD (KFA)

BAHRAIN (BAH) 261551N 0503856E
ASNIX 260452N 0510509E
PATOM 255821N 0511836E
EMISA 254658N 0514207E
*Note 7 to LAKLU
KAPAX 254218N 0515118E
~~LOXAT 252140N 0524523E~~
ORSIS 252801N 0521636E
TOSNA 251612N 0524116E
TOPSI 250910N 0531200E
BOXAK 244536N 0540032E
ADV 242508N 0544024
~~*Note 7/8 (OO/OM)~~
RETAS 235754N 0553423E
*Note 8 (OO)
PUTSO 232037N 0565322E
LAKLU 232235N 0570401E

N687 KING KHALID (KIA)
KINIB 254108N 0482317E
*Note 5 & 7 & 8
KING FAHAD (KFA)
MUTAR 263611N 0500627E
MEMKO 264611N 0504427E
DAVRI 264936N 0505732E
TORBO 265223N 0511024E
~~Note5~~
~~Note 7 above FL250~~

N697 MENLI 2947.0N 03152.1E
SISIK 2936.0N 03241.E
NUWEIBAA (NWB)
* Note 7 (NWB-KITOT below FL350)
KITOT 2902.1N 03450.8E
~~*Note 7 (OE)~~
SOBAS 2756.0N 03904.9E
HAIL (HIL)
*Note 7 (HIL–KFA)
BPN 2703.2N 04526.7E
*Note 8 (BPN-TORBO)
KING FAHD (KFA)
BAHRAIN (BAH)
*Note 7 ~~Bahrain~~
~~LOTIT 264856N0511237E~~
TORBO 265223N 0511024E

BAHRAIN (BAH) 261551N 0503856E
ASNIX 260452N 0510509E
PATOM 255821N 0511836E
EMISA 254658N 0514207E
*Note 7 to LAKLU
KAPAX 254218N 0515118E
~~LOXAT 252140N 0524523E~~
ORSIS 252801N 0521636E
TOSNA 251612N 0524116E
TOPSI 250910N 0531200E
BOXAK 244536N 0540032E
ADV 242508N 0544024
~~*Note 7/8 (OO/OM)~~
RETAS 235754N 0553423E
*Note 8 (OO)
PUTSO 232037N 0565322E
LAKLU 232235N 0570401E

UN687 KING KHALID (KIA)
KINIB 254108N 0482317E
*Note 5 & 7 & 8
KING FAHAD (KFA)
MUTAR 263611N 0500627E
MEMKO 264611N 0504427E
DAVRI 264936N 0505732E
TORBO 265223N 0511024E

UN6~~8~~97 MENLI 2947.0N 03152.1E
SISIK 2936.0N 03241.E
NUWEIBAA (NWB)
* Note 7 (NWB-KITOT below FL350)
KITOT 2902.1N 03450.8E
~~*Note 7 (OE)~~
SOBAS 2756.0N 03904.9E
HAIL (HIL)
*Note 7 (HIL–KFA)
BPN 2703.2N 04526.7E
*Note 8 (BPN-TORBO)
KING FAHD (KFA)
BAHRAIN (BAH)
*Note 7 ~~Bahrain~~
LOTIT 264856N0511237E
TORBO 265223N 0511024E

N929	~~BALUS 254554N 0530424E~~ ~~NOBLA 255111N 0522740E~~ ~~BOSIX 260633N 05155554E~~ ~~TOBLI 262134N 0512301E~~ ~~SIKTA 263232N 0505552E~~ ~~RULEX 264529N 0501745E~~ DASLO 254537N 0523029E *Note 7 & 8 to GIBUS NAGOG 255214N 0521615E BONAN 260201N 0515505E VEDED 260558N 0514628E SOGAT 262029N 0511443E TOSTA 262746N 0504913E DANAG 264438N 0494856E NADNA 264245N 0485309E SILNO 264026N 0475745E ASKOK 262623N 0474809E MUSRI 261647.0N 0474137.0E GIBUS 255724.0N 0472829.0E	UN929	~~BALUS 254554N 0530424E~~ ~~NOBLA 255111N 0522740E~~ ~~BOSIX 260633N 05155554E~~ ~~TOBLI 262134N 0512301E~~ ~~SIKTA 263232N 0505552E~~ ~~RULEX 264529N 0501745E~~ DASLO 254537N 0523029E *Note 7 & 8 to GIBUS NAGOG 255214N 0521615E BONAN 260201N 0515505E VEDED 260558N 0514628E SOGAT 262029N 0511443E TOSTA 262746N 0504913E DANAG 264438N 0494856E NADNA 264245N 0485309E SILNO 264026N 0475745E ASKOK 262623N 0474809E MUSRI 261647.0N 0474137.0E GIBUS 255724.0N 0472829.0E
P307	(SHJ) 251944.9N 0553118.1E Note 7 (OM,OO) TONVO 250500N 0563200E PURNI 243804N 0574354E *Note 8 (OO) KUNUS 241927N 0583226E ALSAS 240054N 0591955E ~~DORAB~~ DERTO 235033N 0594746E VAXIM 231900N 0611100E SETSI 230412N 0614410E PARAR 222630N 0630700E	UP307	(SHJ) 251944.9N 0553118.1E Note 7 (OM,OO) TONVO 250500N 0563200E PURNI 243804N 0574354E *Note 8 (OO) KUNUS 241927N 0583226E ALSAS 240054N 0591955E ~~DORAB~~ DERTO 235033N 0594746E VAXIM 231900N 0611100E SETSI 230412N 0614410E PARAR 222630N 0630700E
		UP323	DONSA 1435.3N06511.6E GIDAS 142004N0600000E NODMA 1526.0N05334.0E THAM~~U~~D 1717.0N 04955.0E WDR
P425	DAHRAN (DHA) *Note 8 to ALSER BAHRAIN (BAH) ~~TORNA 263336N 0504212E~~ ALSER 271100N 0504900E	UP425	DAHRAN (DHA) *Note 8 to ALSER BAHRAIN (BAH) ~~TORNA 263336N 0504212E~~ ALSER 271100N 0504900E
P430	DOHA (DOH) *Note 8 to MIDSI BAYAN 252926N 0514849E *Note 7 to MIDSI KAPAX 254218N 0515118E VUTAN 255016N 0515218E BONAN 260201N 0515505E RAMKI 261138N 0515625E ALTOM 262230N 0515639E TOXEL 263020N 0515553E MIDSI 264142N 05155442E	UP430	DOHA (DOH) *Note 8 to MIDSI BAYAN 252926N 0514849E *Note 7 to MIDSI KAPAX 254218N 0515118E VUTAN 255016N 0515218E BONAN 260201N 0515505E RAMKI 261138N 0515625E ALTOM 262230N 0515639E TOXEL 263020N 0515553E MIDSI 264142N 05155442E

P513
BUBAS 245938N 0570003E
GERAR 240600N 0573616E
~~MIBSI~~ MIXAM 234139N 0575523E
* Note 7 (OO)
MUSCAT (MCT)

P559
TURAIF (TRF)
*Note 7 to DESDI
KAVID 3035.9N 04011.8E
TOKLU 2942.1N 04202.4E
RASMO 2857.2N 04331.3E
KMC
ULOVO 274830N 0455420E
*Note 8 (ULOVO-NAPLO)
MUSKO 2726.7N 04737.1E
KEDAT 2721.8N 04759.0E
JUBAIL (JBL)
GASSI 2702.9N 05022.5E
~~UMAMA 2658.5N 05046.8E~~
~~LOTIT 2648.9N 05112.6E~~
~~VUXOR 2553.7N 05322.0E~~
SODAK 264634N 0510530E
ASPAK 262115N 0522257E
TOMSO 260611N 0530214E
NALPO 255602N 0532945E
RAPSA 253700N 0541700E
DESDI 253603N 0544230E

P570
KITAL 2003N 06018E
~~MIBSI~~ MIXAM 234139N 0575523E

UP559
TURAIF (TRF)
*Note 7 to DESDI
KAVID 3035.9N 04011.8E
TOKLU 2942.1N 04202.4E
RASMO 2857.2N 04331.3E
KMC
ULOVO 274830N 0455420E
*Note 8 (ULOVO-NAPLO)
MUSKO 2726.7N 04737.1E
KEDAT 2721.8N 04759.0E
JUBAIL (JBL)
GASSI 2702.9N 05022.5E
~~UMAMA 2658.5N 05046.8E~~
~~LOTIT 2648.9N 05112.6E~~
~~VUXOR 2553.7N 05322.0E~~
SODAK 264634N 0510530E
ASPAK 262115N 0522257E
TOMSO 260611N 0530214E
NALPO 255602N 0532945E
RAPSA 253700N 0541700E
DESDI 253603N 0544230E

UP570
TRIVENDRUM (TVM)
POMAN 1156.1N 07200.0E
LATEB 1717.1N 06422.0E
KITAL 2003N 06018E
~~MIBSI~~ MIXAM 234139N 0575523E

UP574
(BELGAUM) BBM
(BISET- 1823.4N 06918.1E)
TOTOX 215030N 0622230E
* Note 7 (OM, OO)
KUSRA 231726N 0585102E
~~MIBSI~~ MIXAM 234138N 0575525E
SOLUD 243223N 0564421E
GISMO 244743N 0562236E
BUBIN 245742N 0560642E
TUKLA 2519.6N 05540.2E
KUMUN 254000N 0551512E
~~* Note 7 (KUMUN-PAPAR)~~
PAPAR 264000N 0542700E
SHIRAZ
SAVEH (SAV)
ULDUS

UP634
LALDO 251806N 0563600E
*Note 7
ATBOR 251007N 0551947E

UP693
AL AHSA (HSA) 251644N 0492902E
*Note 8 to BUNDU
BATHA (BAT) 241257N 0512707E
BUNDU 250024N 0522924E

P699
ATBOR 251007N 0551947E

UP699
ATBOR 251007N 0551947E

*Note 7 (~~OM~~ ATBOR-BAH)
SITAT 251105N 0544500E
KISAG 251834N 0541408E
ITMUS 252322N 0535429E
ALSOK 252607N 0533904E
ALSOK 252607N 0533904E
RUBAL 252957N 0531723E
ORMID 253354N 0525434E
*Note 8 (ORMID-KFA)
SOGAT 262029N 0511443E
ASTAD 261812N 0505646E
BAHRAIN (BAH) 261551N 0503856E
KING FHAD (KFA) 262153N 0494910E
~~LOPOM 252941N 0532817E~~
~~BALUS 254554N 0530424E~~

*Note 7 (~~OM~~ ATBOR-BAH)
SITAT 251105N 0544500E
KISAG 251834N 0541408E
ITMUS 252322N 0535429E
ALSOK 252607N 0533904E
ALSOK 252607N 0533904E
RUBAL 252957N 0531723E
ORMID 253354N 0525434E
*Note 8 (ORMID-KFA)
SOGAT 262029N 0511443E
ASTAD 261812N 0505646E
BAHRAIN (BAH) 261551N 0503856E
KING FHAD (KFA) 262153N 0494910E
~~LOPOM 252941N 0532817E~~
~~BALUS 254554N 0530424E~~

P751 AMIBO 3456.7N 2136.4E
BRN 3134.5N 02600.3E
KATAB 2925.0N 2905.1E
AST 2701.9N 03101.9E
LUXOR (LXR)
ALEBA 2200.0N 03527.0E
PORT SUDAN
[ASMARA] * Note 1
TOKAR ~~ASSAB~~ 1304.0N 04238.8E
PARIM 1231.7N 04327.2E
ADEN (KRA)
ANGAL 1614.0N 06000.0E
~~(~~MUMBAI~~)~~ (BBB)

UP751 AMIBO 3456.7N 2136.4E
BRN 3134.5N 02600.3E
KATAB 2925.0N 2905.1E
AST 2701.9N 03101.9E
LUXOR (LXR)
ALEBA 2200.0N 03527.0E
PORT SUDAN
[ASMARA] * Note 1
TOKAR ~~ASSAB~~ 1304.0N 04238.8E
PARIM 1231.7N 04327.2E
ADEN (KRA)
ANGAL 1614.0N 06000.0E
~~(~~MUMBAI~~)~~ (BBB)

UP891 MAGALA (MGA)
*Note 7 to KUA
KUTEM 264359N 0473521E
EGNOV
EMILU
KUNRU 283220N 0481050E
KUWAIT (KUA)

P899 ~~*Note 7 (OO,OM/OB)~~
~~MIBSI~~ MIXAM 234139N 0575523^{E}
*Note 7 to KUPSA
PAXIM 240245N 05617631E
ITRAX 241248N 0554749E
AL AIN (ALN)
ABU DHABI
DASLA N2437.8 E05332.8
VEBAT N2448.5 E05251.0
MEKMA N245430 E0522506
*Note 8 (OB)
KUPSA N250445 E0521151

UP899 ~~*Note 7 (OO,OM/OB)~~
~~MIBSI~~ MIXAM 234139N 0575523^{E}
*Note 7 to KUPSA
PAXIM 240245N 05617631E
ITRAX 241248N 0554749E
AL AIN (ALN)
ABU DHABI
DASLA N2437.8 E05332.8
VEBAT N2448.5 E05251.0
MEKMA N245430 E0522506
*Note 8 (OB)
KUPSA N250445 E0521151

R462 (JIWANI) JI
DENDA 2442.5N 06054.8E
VUSET 235540N 0590812E
*Note 7 (OO)
~~MIBSI~~ MIXAM 234139N 0575523E

UR462 (JIWANI) JI
DENDA 2442.5N 06054.8E
VUSET 235540N 0590812E
*Note 7 (OO)
~~MIBSI~~ MIXAM 234139N 0575523E

R659 TEHRAN(TRN)
*Note 7 (ISN-TRN)
BOXAM 343749N 0515147E
DAPOG 333744N 0522331E

UR659 TEHRAN(TRN)
*Note 7 (ISN-TRN)
BOXAM 343749N 0515147E
DAPOG 333744N 0522331E

	*Note 3 (DAPOG-SYZ) SHIRAZ (SYZ) MIDSI 264142N 0515442E *Note 8 (MIDSI-DOH) *Note 7 (MIDSI-VELAM) SOGAN 263915N 0515408E ROSAN 263129N 0515220E DASOS 262430N 0515043E RABLA 261506N 0514834E VEDED 260558N 0514628E VELAM 255426N 0514347E EMISA 254626N 0514207E DOHA (DOH)		*Note 3 (DAPOG-SYZ) SHIRAZ (SYZ) MIDSI 264142N 0515442E *Note 8 (MIDSI-DOH) *Note 7 (MIDSI-VELAM) SOGAN 263915N 0515408E ROSAN 263129N 0515220E DASOS 262430N 0515043E RABLA 261506N 0514834E VEDED 260558N 0514628E VELAM 255426N 0514347E EMISA 254626N 0514207E DOHA (DOH)
R784	SHARJAH (SHJ) ORSAR 2604.5N 05357.5E *Note 8 (OM) DURSI 2712.3N 05201.7 E IMDAT 2740.0N 05113.0E ALNIN 2840.9N 05001.6E NANPI 290457N 0493157E SIDAD 295231N 0482944E	UR784	SHARJAH (SHJ) ORSAR 2604.5N 05357.5E *Note 8 (OM) DURSI 2712.3N 05201.7 E IMDAT 2740.0N 05113.0E ALNIN 2840.9N 05001.6E NANPI 290457N 0493157E SIDAD 295231N 0482944E

Add requirement for ATS routes: UL305, L768, M318/UM318 and P891as follows:

		UL305	DOHA (DOH) *Note 7 (DOH-ITITA) *Note 8 (DOH-ASTOG) ASTOG 252822N 0525025E ITITA 2544.2N 05418.7E
L768	ALPOB 254218N 0530055E * Note 7 & 8 to COPPI * Note 8 (ALPOB-COPPI) ROTAG 255353N 0523621E SOLEG 260159N 0521756E RAMKI 261138N 0515625E RABLA 261506N 0514834E SOLOB 262241N 0513132E MEDMA 263421N 0505454E TOTLA 263806N 0504301E COPPI 2750.6N 04744.0E		
M318	DARAX 260942N 0555300E *Note 8 (DARAX-MUXIT) SERSA 251945N 0553118E MIADA 245112N 0545736E ABU DHABI (ADV) 242508N 0544023E ATUDO 241708N 0543532E MUSEN 241429N 0543336E GOLGU 231151N 0523109E MUXIT 230230N 0523024E KITAP 224928N 0522923E PURDA 210805N 0510329E SHARURAH (SHA)	UM318	DARAX 260942N 0555300E *Note 8 (DARAX-MUXIT) SERSA 251945N 0553118E MIADA 245112N 0545736E ABU DHABI (ADV) 242508N 0544023E ATUDO 241708N 0543532E MUSEN 241429N 0543336E GOLGU 231151N 0523109E MUXIT 230230N 0523024E KITAP 224928N 0522923E PURDA 210805N 0510329E SHARURAH (SHA)
P891	MAGALA (MGA) *Note 7 to KUA KUTEM 264359N 0473521E EGNOV EMILU KUNRU 283220N 0481050E		

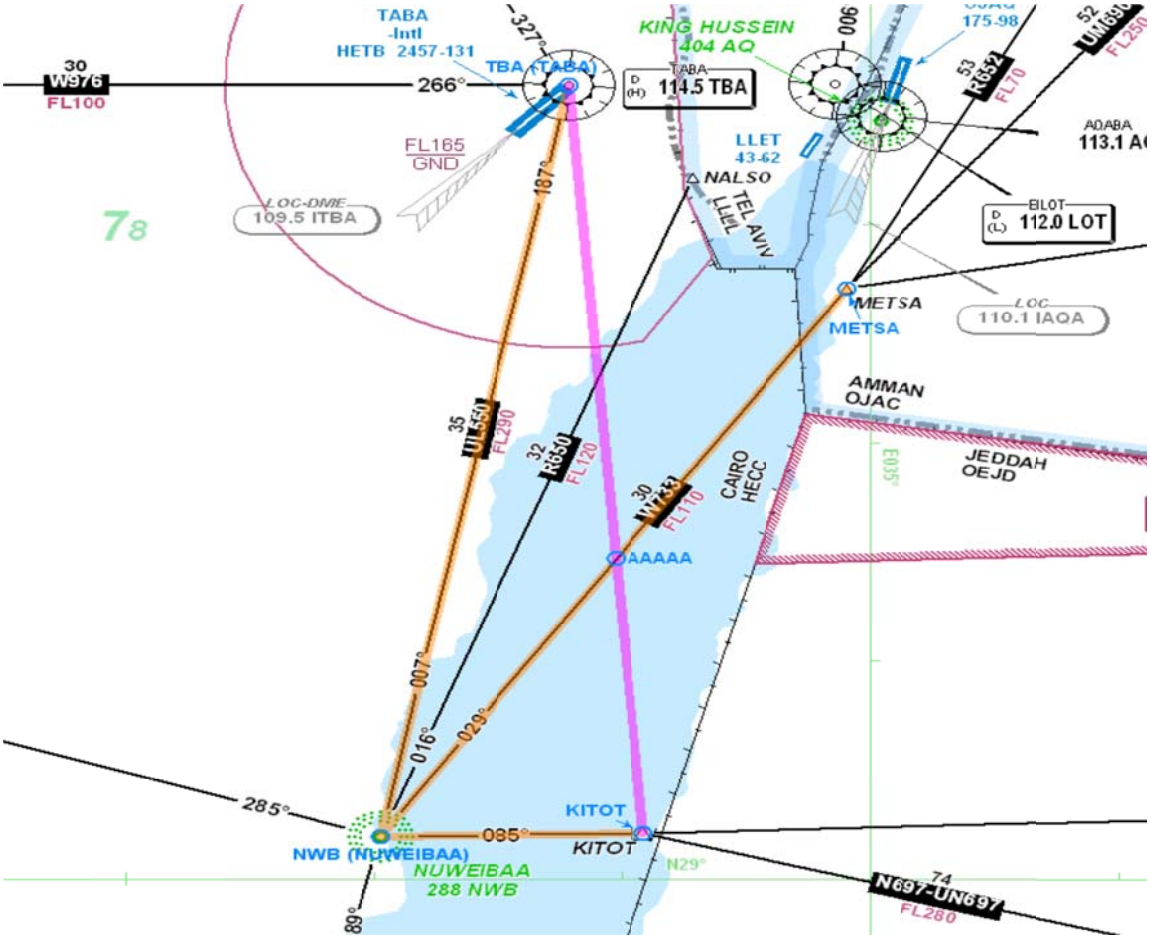
KUWAIT (KUA)

c) **Originated by:**	The sixth ATS Route Network Task Force (ARN TF/6) meeting.	
d) **Originator's reasons for amendment**:	The ARN TF/6 meeting reviewed and updated the Table ATS 1-ATS Routes of the MID Basic ANP, and endorsed Proposals for Amendments received from Bahrain and UAE.	
e) **Intended date of implementation**:	As soon as practicable after approval.	
f) **Proposal circulated to following States and organizations:**	Bahrain Egypt Islamic Republic of Iran Iraq Jordan Kuwait Lebanon Oman Qatar	Saudi Arabia Syrian Arab Republic United Arab Emirates Yemen IACA IATA IFALPA CANSO
g) **Secretariat's comments:**	The changes proposed herein are the result of work undertaken by the MIDANPIRG ARN TF/6; the ICAO MID Regional Office and individual MID States to enhance MID Region ATS route network efficiency. Including the implementation of RNAV1 routes in Bahrain, Emirates and Muscat FIRs.	

ARN TF/6
Appendix 3C to the Report on Agenda Item 3

Reference	Objective and Proposal	State(s) concerned
Proposal 1	*Objective:* *To further improve ATS route network within Cairo FIR.* To implement bi-directional ATS route **TBA** - **AAAAA** - **KITOT**.	EGY **Originator** EUROCONTROL

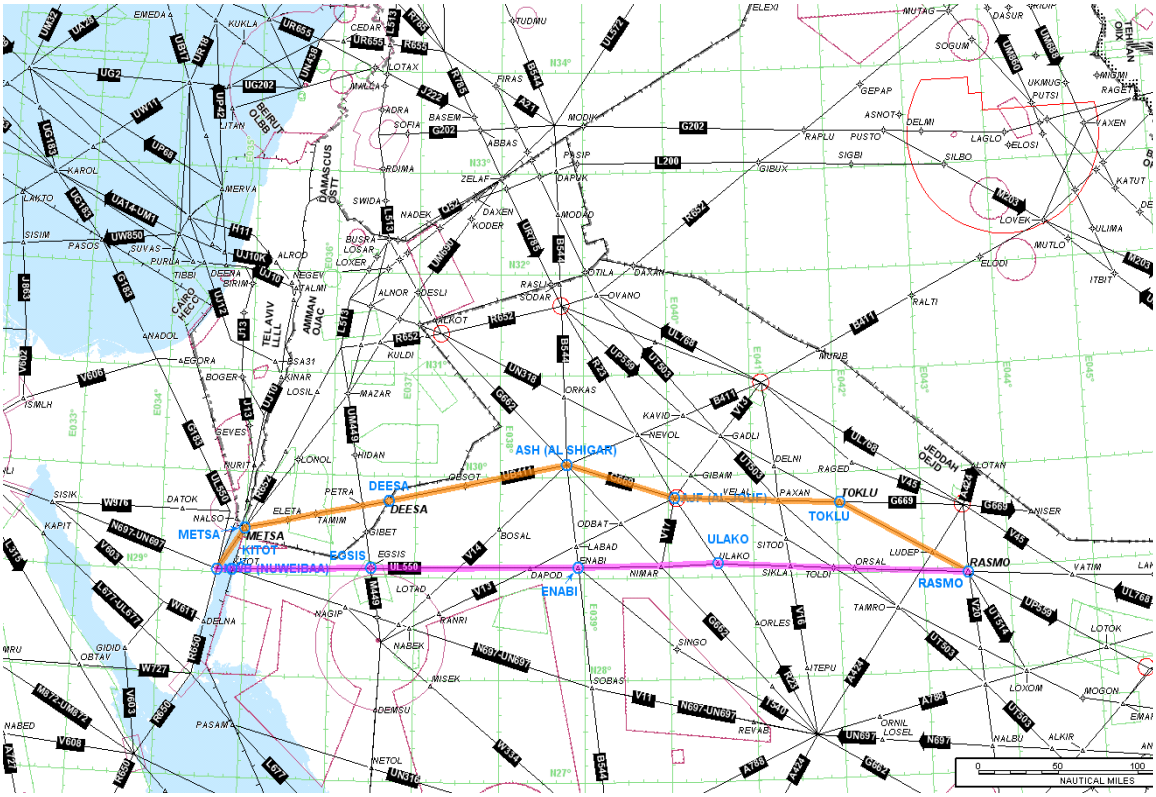
Notes:
1. *AAAAA - crossing point between new TBA - KITOT and existing ATS route W733 allowing connection to/from METSA.*
2. *Shorter by 9.2NM option compare to existing TBA - NWB - KITOT.*
3. *Shorter by 28.6NM option compare to existing TBA - NWB - METSA.*



Reference	Objective and Proposal	State(s) concerned
Proposal 2	*Objective:* *To further improve ATS route network within Cairo FIR.* To change to bi-directional existing westbound ATS route segment **N/UN697 / UL550** KITOT - NWB.	EGY **Originator** EUROCONTROL

Notes:

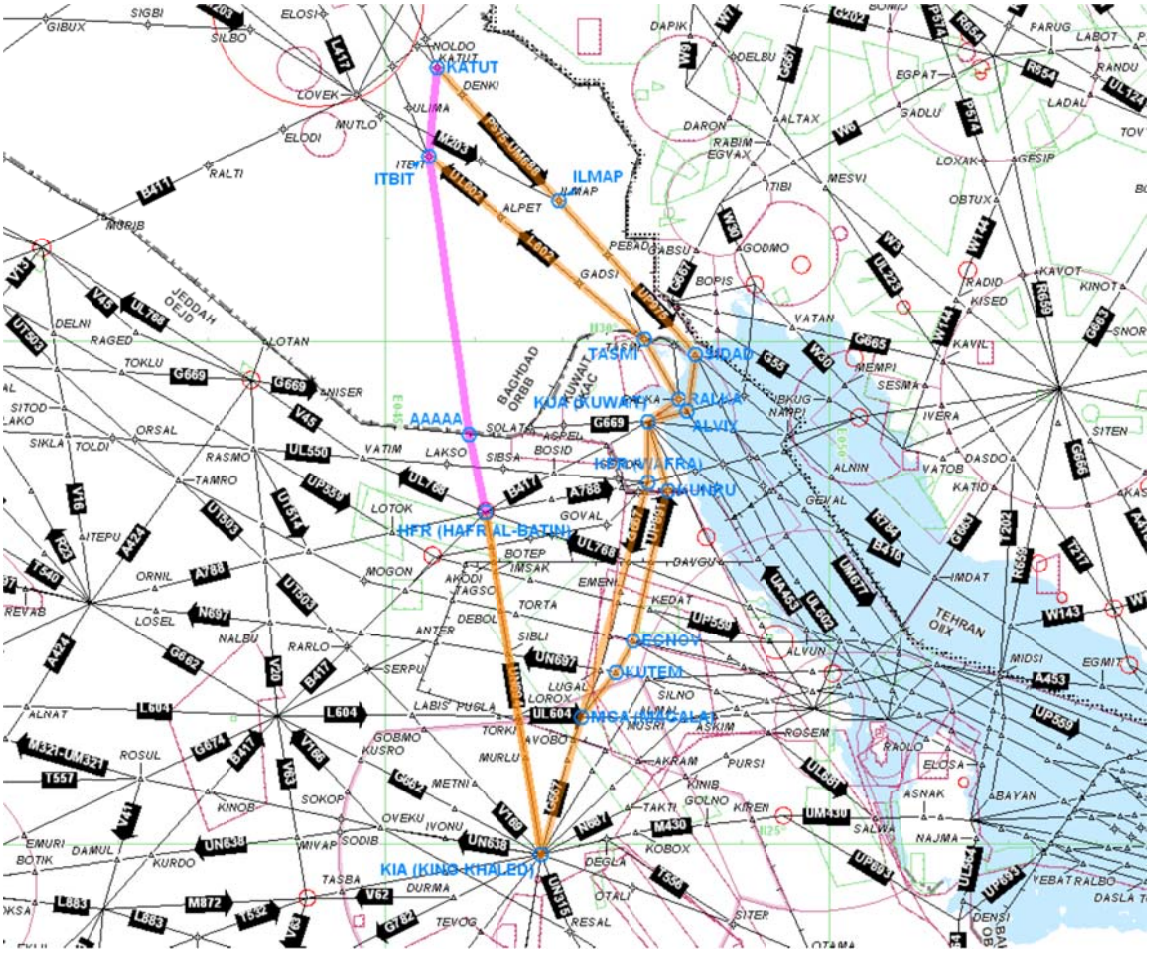
1. *In accordance with AIP A.R.E. part ENR this ATS route segment is westbound only and KITOT is used only as an entry point for NB TFC overflying Cairo FIR & for TFC LDG HECA, HEBA, HEMM & HEAL.*
2. *This unidirectional use of KITOT is also reflected in Traffic Orientation for Cairo FIR also part of AIP A.R.E..*
3. *Eastbound is an important option for traffic circumnavigating Damascus FIR as maximum saving flying distance is around 30NM.*
4. *The change might cover only ATS route UL550 (FL285 - UNL) as N/UN697 in that segment has lower/upper limits FL255 - FL285.*



Reference	Objective and Proposal	State(s) concerned
Proposal 3	*Objective:* *To further improve ATS route network between Baghdad FIR and Jeddah FIR.* To implement ATS route **HFR - AAAAA - ITBIT - KATUT**.	IRQ SAU **Originator** EUROCONTROL

Notes:

1. *AAAAA - new boundary point between Jeddah FIR and Baghdad FIR.*
2. *HFR - AAAAA - ITBIT bi-directional.*
3. *ITBIT - KATUT southbound.*
4. *New shorter option mainly for DEP/ARR OERK.*
5. *Bi-directional ATS route N/UN864 KIA - HFR exists in Jeddah FIR as well as OERK SID TORKI.*
6. *For DEP OERK shorter by 83.2NM option compare to existing KIA - MGA - KUTEM - ENGOV - KUNRU - KUA - RALKA - TASMI - ITBIT.*
7. *For ARR OERK shorter by 78.3NM option compare to existing KATUT - ILMAR - SIDAD - ALVIX - KUA - KFR - LUGAL - MGA - KIA.*



ARN TF/6
Appendix 3D to the Report on Agenda Item 3

Deficiencies in the ATM Field

EGYPT

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 11 Para. 2.30~~	~~-~~	~~Development of contingency plan~~	~~Nov, 2006~~	~~Developed and sent to ICAO MID Regional Office – signed with Greece, Libya and Saudi Arabia~~	~~H~~	~~developed and promulgated contingency plans for implementation in the event of disruption of ATS and related supporting services~~	~~Egypt – ICAO~~	~~Jan, 2013~~	~~A~~
1	MID ANP Table ATS-1 Plan of ATS routes	Egypt	ATS routes M305/UM305 not implemented	April 2013		S O	Egypt to continue the coordination with the relevant authorities.	Egypt	Dec, 2013	B
2	MID ANP Table ATS-1 Plan of ATS routes	Egypt / Libya/ Malta	ATS routes M312/UM312 not implemented	April 2013	Segment DBA-AMIBO not implemented	S O	States to continue the coordination for the implementation of this route	Egypt	Dec, 2013	B

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

Deficiencies in the ATM Field

IRAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 11 Para. 2.30	-	Development of contingency plans	Nov, 2006	Ongoing - sent to ICAO MID Regional Office - signerd with Bahrain, Oman and Pakistan	H	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Iran	~~Jun, 2012~~ June 2014	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 O	States to continue negotiations with one another. Iran has no plan to implement the route segment	Iran and UAE	~~Jun, 2012~~ Dec, 2013	B
4	MID ANP Table ATS - 1 Plan of ATS Routes	Iran / Iraq	ATS route L126 MIGMI - ILM not implemented	Dec, 2011	MIGMI - ILM not implemented	S	States to continue negotiations with one another.	Iran / Iraq	~~Jun, 2012~~ Dec, 2013	B

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

Deficiencies in the ATM Field

IRAQ

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	**Facilities/ Services**	**Description**	**Date First Reported**	**Remarks/ Rationale for Non-elimination**		**Description**	**Executing Body**	**Date of Completion**	**Priority for Action**
1	MID ANP Table ATS-1 Plan of ATS Routes	-	ATS route G667 not implemented	Sep, 2006	~~Iraq has no plan to open the route~~ Iraq requested that Airway be suspended until adequate radar coverage exists and RVSM has been implemented in the Baghdad (FIR). not supported by Kuwait due Military restrictions	S	Iraq ha no objection to open the route	Iraq Iran Kuwait	Jan, 2013	B
2	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	-sent to ICAO MID Regional Office	S	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Iraq ICAO	~~Jan, 2013~~ Dec 2013	A
~~4~~	~~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. NOTAMotam issued opening route in Baghdad FIR~~	~~S~~	~~States to negotiate with one another and coordinate opening of the route~~	~~Iraq/Syria~~	~~Jan, 2013~~	~~B~~

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

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
5	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	~~Jan,~~Dec, 2013	B
6	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	O	No plan to open the route. Saudi Arabia has no objections to extend the route in Baghdad FIR Proposed AIRAC date 1 July 2010	Iraq	~~Jan,~~Dec, 2013	B
7	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	~~Jan,~~Dec, 2013	B
9	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 Iraq will propose to remove it	S	States to continue negotiations with one another.	Iraq/Iran	Dec, 2012	B

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

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	**Facilities/ Services**	**Description**	**Date First Reported**	**Remarks/ Rationale for Non-elimination**		**Description**	**Executing Body**	**Date of Completion**	**Priority for Action**
10	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. Iraq will propose to remove it	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	B
	~~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~~	~~B~~

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

Deficiencies in the ATM Field

JORDAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	National Contingency plan developed sent to ICAO MID Regional Office - signed with Egypt and Saudi Arabia	H	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Jordan	Jan, 2014	A
~~3~~	~~MID ANP Table ATS 1~~	~~-~~	~~ATS Route UP559 not implemented~~	~~Mar, 2007~~	~~The segments TURAIF TONTU DAMASCUS DAKWE KHALDEH KUKLA LARNACA are not implemented.~~ ~~Jordan Has no plans to implement~~	~~S~~	~~The segments TURAIF TONTU DAMASCUS DAKWE KHALDEH KUKLA LARNACA are not implemented~~	~~Jordan Lebanon and Syria~~	~~Dec, 2012~~	~~B~~

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

Deficiencies in the ATM Field

KUWAIT

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
2	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	Contin~~e~~gency Plan was signed with Bahrain and Saudi Arabia. Contingency Plan with Iraq and Iran is still awaited to be signed	S	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Kuwait	Dec, 2012	A
3	MID ANP Table ATS-1 Plan of ATS routes	-	ATS route G669 segment Rafha SOLAT not implemented	May, 2008	Airspace restrictions	S	- Airspace restrictions to be addressed -- Kuwait has no plan to activate the route segment. - Iraq ready to implement segment Rafha - SOLAT	Kuwait/Iraq	影脈穢2013	B
4	MID ANP Table ATS - 1 Plan of ATS Routes	-	ATS Route G667 not implemented Abadan (ABD0 ALSAN	Jan, 2006	Iraq has no plan to open the route Iraq requested that Airway be suspended until adequate radar cover~~r~~age exists and RVSM has been implemented in the Baghdad (FIR). not supported by Kuwait due Military restrictions	S	ATS Route G667 not implemented Abadan (ABD0 ALSAN	Iraq/Kuawit/Iran	Jan, 2013	B

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

Deficiencies in the ATM Field

LEBANON

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	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	S	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Lebanon ICAO	Jun, 2012	A
~~3~~	~~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~~	~~Jun, 2012~~	~~B~~

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

Deficiencies in the ATM Field

OMAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 11 Para. 2.30	-	Development of contingency plans	Nov, 2006	Under development : sent to ICAO MID Regional Office - signed with Bahrain, Iran, UAE and Yemen~~t~~. Agreement yet to be signed with Pakistan and India	S	Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services	Oman	Dec, 2014	A

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

Deficiencies in the ATM Field

QATAR

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	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	~~Jan, 2013~~ Dec, 2014	A
~~2~~	~~MID ANP Table ATS - 1~~	~~-~~	~~ATS Route L/UL443 not implemented~~	~~Nov, 2012~~ ~~Nov, 2011~~	~~The segment KUPSA AMBEK LAGVA LOPOK TAMRI are not implemented~~	~~S~~	~~need to establish the route~~	~~Qatar~~	~~Dec, 2012~~	~~B~~

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

Deficiencies in the ATM Field

SAUDI ARABIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	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. signed with Bahrain, Egypt, Jordan, Kuwait	S	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Saudi Arabia	Dec, 2013	A

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

Deficiencies in the ATM Field

SYRIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	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	Jan, 2013	B
2	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	Jan, 2013	B
3	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	Jan, 2013	A
~~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~~	~~Syria has no plan to implement the route.~~	~~Jordan Lebanon and Syria~~	~~Jan, 2013~~	~~B~~

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

Deficiencies in the ATM Field

UAE

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	Plan completed and Agreements signed with Bahrain and Oman. Others pending	O	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	Dec, 2013	A
2	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	Dec, 2013	B

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

Deficiencies in the ATM Field

YEMEN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
2	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	Ongoing - signed with Oman	H O	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services	Yemen	Jan, 2013	A

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

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

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

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

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

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

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

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

Definition:

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

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

REPORT ON AGENDA ITEM 4: CONTINGENCY PLANNING

4.1 The meeting noted that MIDANPIRG/13 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.

4.2 Taking into consideration the current events in the MID Region and for ensuring safety and continuity of civil aviation, the meeting reviewed the Contingency Routing Scheme Asia/Middle East/Europe 2003 version(3), and agreed that this plan should be updated in order to include more routes scenarios, namely over Baghdad FIR. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 6/4: MID REGIONAL CONTINGENCY PLAN

That,

*a) States and users be urged to review the MID Regional Contingency Plan and the revised version of the CRAME-03 version (3) as at **Appendices 4A and 4B** to the Report on Agenda Item 4, respectively; and provide updates and comments to the ICAO MID Regional Office before **15 June 2013;***

b) ICAO MID Regional Office to coordinate with ICAO EUR/NAT and APAC Regional Offices and ICAO Head Quarters the revision and update process of the CRAME-03version (3).

c) a draft CRAME-03 Version 3 will be reviewed by the ATM/AIM/SAR SG/13 that will be held in Cairo, Egypt, 30 September to 4 October 2013.

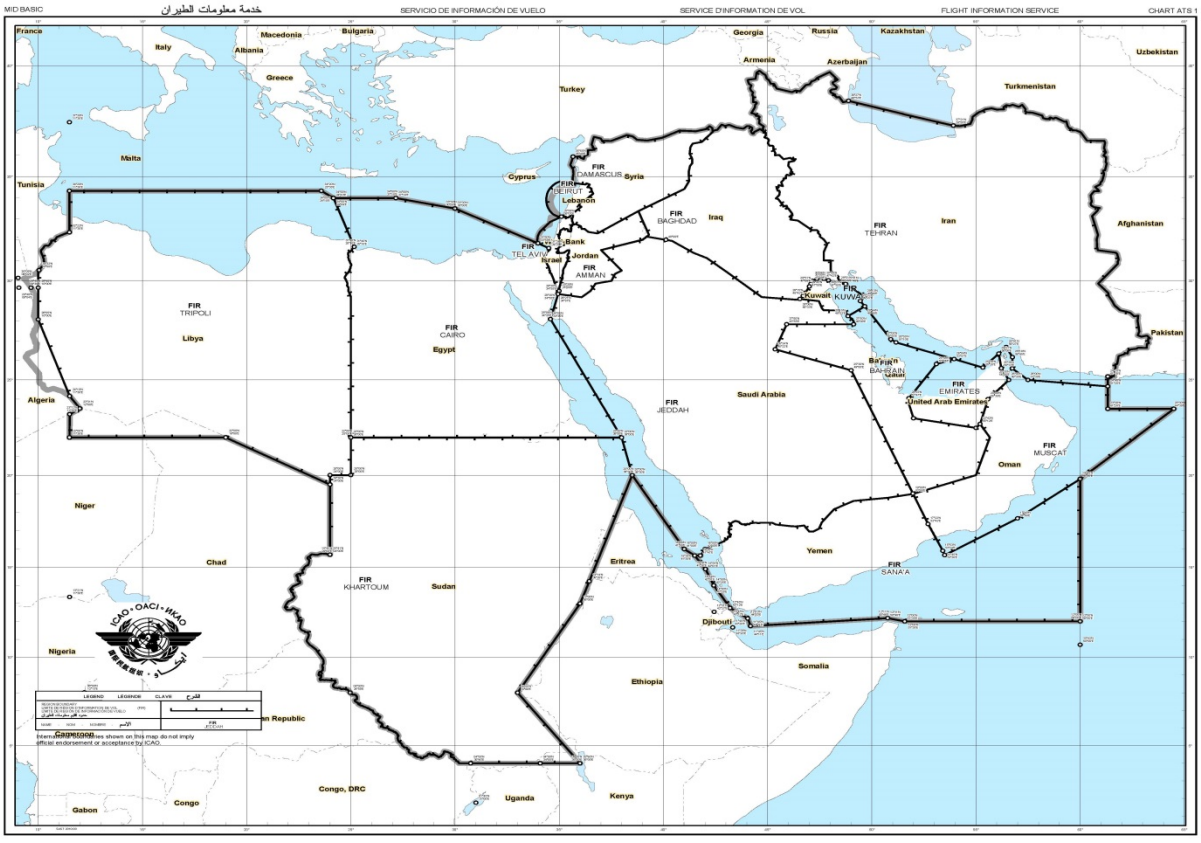
4.3 The meeting reviewed and updated the status of implementation of the contingency plans in the MID Region and the focal points contact details as at **Appendices 4C** and **4D** to Report on Agenda Item 4, respectively.

ARN TF/6
Appendix 4A to the Report on Agenda Item 4

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

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First published: 22 May 2011

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CHAPTER 14: DETAILED PROCEDURES – YEMEN ACC.....

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.

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

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 MID 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

Libya

- Tripoli Control

Oman

- Muscat Control

Qatar

- Bahrain Control

Saudi Arabia

- Jeddah Control
- Riyadh Control

Sudan

- 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)".

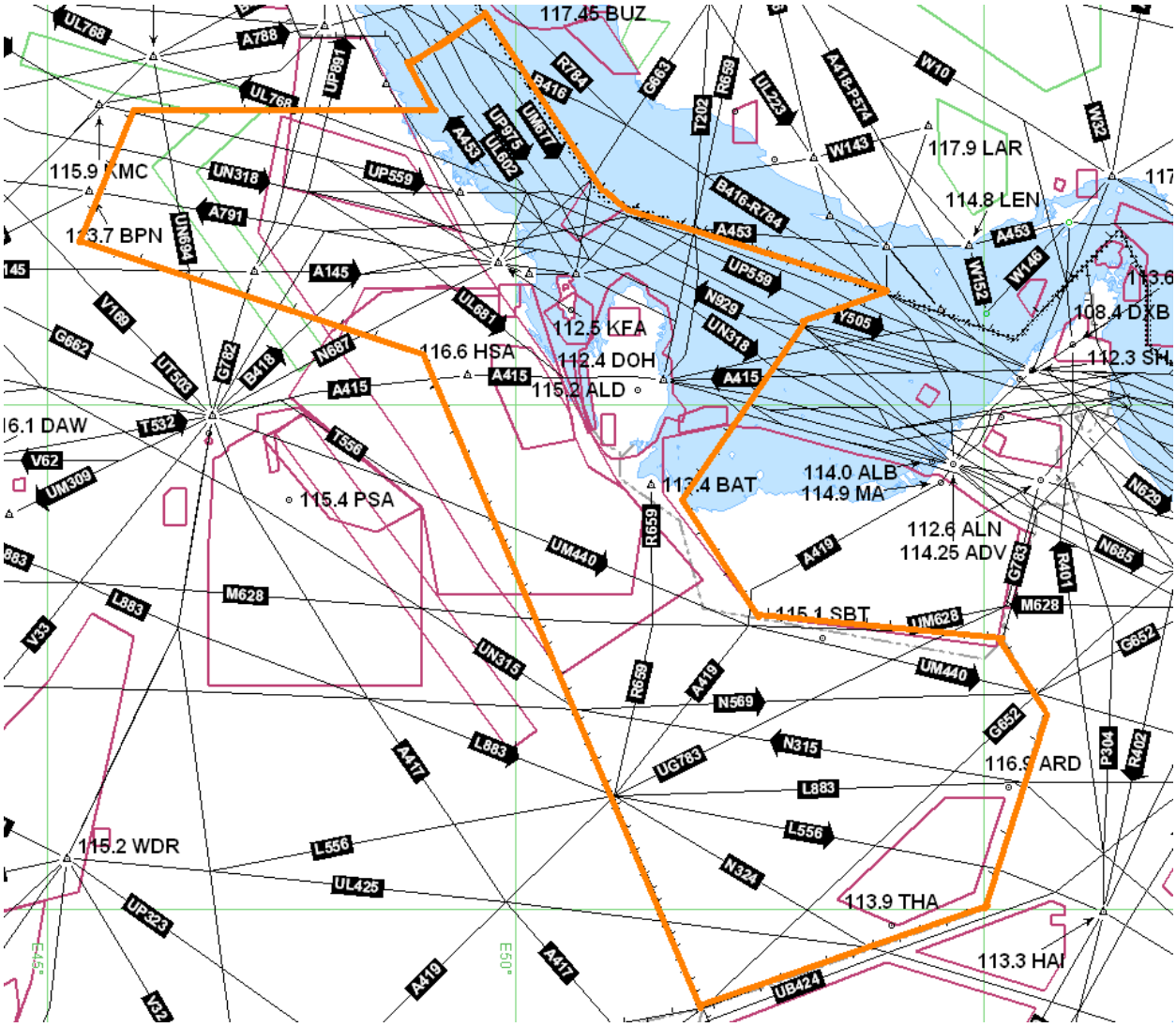
When the level change begins, the flight should make the following broadcast:

"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)."

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 or 44554060 or 44544133 (Sector Controller)	00982144544117	maj.alireza@yahoo.com alireza.majzoubi@gmail.com	OIIIZGZX
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 1080/1081	0097317321029	bahatc@caa.gov.bh	OBBBZQZX OBBBZQZA
Emirates ACC	0097125996969	0097125996850 0097125996852	atc@szc.gcaa.ae mdolbey@szc.gcaa.ae	OMAEZQZX OMAEYAYH
Kuwait ACC	+96524346220 / 24710268	+965 24346221	baracoda99@hotmail.com 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	icaomid@icao.int
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.

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:

CONTINGENCY ROUTE STRUCTURE FOR BAHRAIN FIR

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+
BAHCRE14B	AMBIK	→GEVAL →	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 opportunity.

CONTINGENCY FREQUENCIES FOR CONTROL AND/OR FLIGHT MONITORING SERVICES

CONTINGENCY ROUTE	ROUTE	MANDATORY REPORT	MANDATORY REPORT	EXIT FREQUENCY
BAHCR1WB	BALUS UL76 RAMSI UL60 DAVUS	BALUS 132.12MHZ B/U 121.1 DOHA	RAMSI 132.45MHZ B/U 127.85	IVONI KUW 125.3MHZ
BAHCR2WB	BALUS UL76 COPPI	BALUS 132.12MHZ B/U 121.1 DOHA	RAMSI 132.45MHZ B/U 127.85	COPPI JED 134.4 FL340 a Below RIY 132.5 FL360 a 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 a above
BAHCR4WB	BALUS N929 SILNO G663 GIBUS	BALUS 132.12MHZ B/U 121.1 DOHA	RULEX 132.45MH B/U 127.85	GIBUS RIY 126.0MHZ
BAHCR5WB	ALSER G663 GIBUS	ALSER 132.45MH B/U 127.85	SILNO 125.05MHZ B/U 126.3 DAM	GIBUS RIY 126.0MHZ
BAHCR6WB	ALSER G663 SILNO A791 BPN	ALSER 132.45MH B/U 127.85	SILNO 125.05MHZ B/U 126.3 DAM	BPN JED 134.3MHZ
BAHCR7WB	COPPI G667 AVOBO	COPPI 132.45MH B/U 126.3 DAM		MGA RIY 126.0MHZ
BAHCR8EB	B418 NUTAR G663	AKRAM 126.7MH B/U 126.3 DAM	MUTAR 132.45 M B/U 126.3 DAM	ALSER TEH 133.4 MHZ
BAHCR9EB	B418 ASPAN UN318	AKRAM 126.7MH B/U 126.3 DAM	ASPAN 132.45MH 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 K UM691 K UN318	KEDAT 126.7 MH B/U 126.3 DAM	ASPAN 132.45 MH B/U 126.3	LOXAT UAE 128.25MHZ
BAHCR13EB	UM667 UMAMA UP5 LOTIT A791	GEVAL 132.45 MH B/U 126.3 DAM	LOTIT 132.12 MZ B/U 126.3 DAM	NADAM UAE 132.15 MH
BAHCR14EB	AMBIK → GEVAL → KUVER	GEVAL 132.45 MH 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
NOTAM ……DUE 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
NOTAM …….DUE 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 The various circumstances surrounding each contingency situation make it difficult to establish exact and detailed procedures to be followed in each case. Here are the general guidelines which should be followed in case of limited service.

- The ***AOCT "ATS Operational Contingency Team"*** will convene to have the appropriate procedures applied according to the situation arising.
- The ***AOCT*** will take the necessary action As Soon As Possible to inform all adjacent ANSPs and Operators.
- The Limited Service message will be broadcast on appropriate frequencies and operators in receipt of such message are asked to forward this information to affected flights wherever possible.
- 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.
- Cairo ACC will be responsible for ensuring the co-ordination and implementation of any additional separation requirements.

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

2.5 NO SERVICE – PROCEDURES

In the event of Cairo ACC being unable to provide the Air Traffic Services (ATS), the head of ECAA will activate the Egyptian Air Traffic Services contingency plan, the civil aviation authorities of the adjacent FIRs will be notified in accordance with the Operational Coordination Agreement (OCA) signed between Cairo ACC and the adjacent ACCs. The adjacent ACCs will in return activate the procedures stated in the OCA.

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.

2.6 CAIRO FIR – CONTINGENCY ROUTE STRUCTURE

2.6.1 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 and/or any other means available.

2.6.2 For activation within adjacent FIR

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

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

CONTINGENCY ROUTE STRUCTURE AND FREQUENCIES FOR FLIGHT MONITORING SERVICES CAIRO FIR

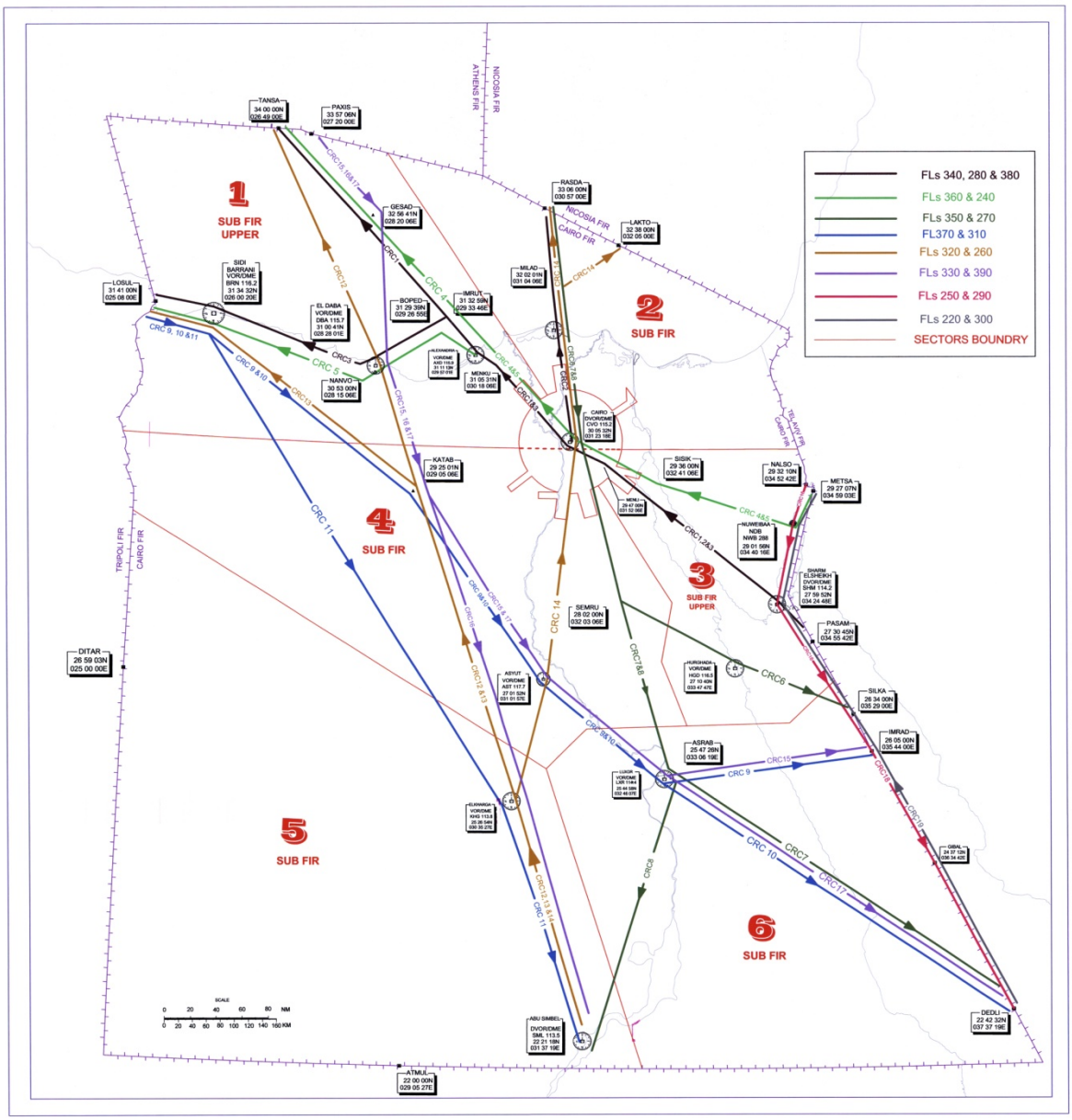
CONTINGENCY ROUTES IN CAIRO (CRC)	ATS ROUTES	FREQUENCIES	FL ASSIGNMENT
CRC1	PASAM-A411-CVO-IMRUT-UL617-TANSA	126.6Mhz CVO 127.7Mhz	FLs 380, 340 and 280
CRC 2	PASAM-A411-CVO-A16-RASDA	126.6Mhz CVO 124.7Mhz	FLs 380,340 and 280
CRC 3	PASAM-A411-CVO-A727-OTIKO- W725-BRN-A411-LOSUL	126.6Mhz CVO 127.7Mhz	FLs 380,340 and 280
CRC 4	METSA-W733-NWB-A791-MENLI-A411-CVO-A727-IMRUT- L617/UL617-TANSA	126.6Mhz CVO 127.7Mhz	FLs 360 and 240
CRC 5	METSA-W733-NWB-A791-MENLI-A411-CVO-A1-BOPED- W725-BRN- A411-LOSUL	126.6Mhz CVO 127.7Mhz	FLs 360 and 240
CRC 6	RASDA-A16-CVO-A727-SEMRU-B418-SILKA	124.7Mhz CVO 132.2Mhz SEMRU 126.6Mhz	FLs 350 and 270
CRC 7	RASDA-A16-CVO-A727-LXR-R775-DEDLI	124.7Mhz CVO 132.2Mhz SEMRU 129.4Mhz	FLs 350 and 270
CRC 8	RASDA-A16-CVO-A727-SML	124.7Mhz CVO 132.2Mhz SEMRU 129.4Mhz	FLs 350 and 270
CRC 9	LOSUL-A411-BRN-UP751-LXR-A145-IMRAD	127.7Mhz KATAB 132.2Mhz AST 129.4Mhz	FLs 370 and 310
CRC 10	LOSUL-A411-BRN-UP751-LXR-R775-DEDLI	127.7Mhz KATAB 132.2Mhz AST 129.4Mhz	FLs 370 and 310
CRC 11	LOSUL-A411-BRN-A145-KHG-B12-SML	127.7Mhz DANAD	FLs 370 and 310

		132.2Mhz/ ABM AST 129.4Mhz	
CRC 12	SML-B12-DBA-UL613-TANSA	129.4Mhz ABM AST 132.2Mhz KATAB 127.7Mhz	FLs 320 and 260
CRC 13	SML-B12-KATAB-UP751-BRN-A411-LOSUL	129.4Mhz ABM AST 132.2Mhz KATAB 127.7Mhz	FLs 320 and 260
CRC14	SML-B12-KHG-W8-CVO-A16-MILAD-A16-RASDA OR N307-LAKTO	129.4Mhz AST 132.2mhz CVO 124.7Mhz	FLs 320 and 260
CRC15	PAXIS-UL607-GESAD-L551-DBA-B12-KATAB-UP751-LXR-A145-IMRAD	127.7Mhz KATAB 132.2Mhz AST 129.4Mhz	FLs 330 and 390
CRC16	PAXIS-UL607-GESAD-L551-DBA-B12-SML	127.7Mhz KATAB 132.2Mhz ABM AST 129.4Mhz	FLs 330 and 390
CRC17	PAXIS-UL607-GESAD-L551-DBA-B12-KATAB-UP751-LXR-R775-DEDLI	127.7Mhz KATAB 132.2Mhz AST 129.4Mhz	FLs 330 and 390
CRC18	NALSO-NWB-SHM-IMRAD-GIBAL-DEDLI	126.6Mhz SILKA 129.4Mhz	FLs 290 and 250
CRC19	DEDLI-GIBAL-IMRAD-SHM-NWB-NALSO	129.4Mhz SILKA 126.6Mhz	FLs 300 and 220

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.

2.7 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.

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

NOTAM ……DUE 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

NOTAM …….DUE 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

NOTAM……..OPERATORS 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 +903123981153 +903123981614 +903123980296	+903123980961		LTAAZRZX LTAAZQZX
Baghdad FIR	+9647901655461			
Bahrain ACC	+97317321080 +97317321081 +97317320486	+97317321029	bahatc@caa.gov.bh	OBBBZQZX OBBBZQZA
Baku FIR	+994124971673			UBBBZRZX UBBBZQZX
NAKHCEVAN ACC	+994136446950			UBBNZPZX UBBNZQZX

UAE ACC	00971	00971		OMAEZQZX OMAEYAYH
Kabul FIR	+873781338375			
Karachi FIR	+922199248038 +922199071953 +922199242148	+922134604322		OPKCZRZX OPKCZRZA
Kuwait FIR	+9654762994 +9654342476 +9654760763	+9654310096		
Muscat ACC	+96824519550 +96824519507	+96824519939		OOMMZQZX
Turkmenbashi FIR	+99312396664 +99312510162 +99312377750	+99312331352		
Yerevan FIR	+37410593479 +37410593260 +37410593304	+37410593304		

ICAO MID	+20 2 2267 4845/46/41	0020 2 2267 4843	icaomid@icao.int
IATA	+962 6 569 8728	+962 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.

Contingency Route Scheme

Entry FIR	Exit FIR	Entry FIX	Route Designator	Exit FIX	Flight Levels	Remarks
Ankara	**Nakhchivan**	**DASIS**	**UL333 R661**	**DULAV**	FL330	
		ALRAM	**G208 A422 R661**	**DULAV**	FL310, FL410	ALRAM–UMH Eastbound (one way) then two way
Ankara	**Yerevan**	**ALRAM**	**UL333 G482**	**MAGRI**	FL330	
		ALRAM	**G208 A422 G482**	**MAGRI**	FL310, FL410	ALRAM–UMH Eastbound then two way
Ankara	**Ashgabat**	**ALRAM**	**-G208-G781-A416-W4**	**RIKOP**	FL310, FL410	
		DASIS	**UL333-A416-W4**	**RIKOP**	FL330	ALRAM–UMH Eastbound then two way
Ankara	**Karachi bound to Delhi and beyond**	**DASIS**	**R660-A416-N39-G208 G452**	**DERBO**	FL330	
		ALRAM	**G208–G208 UL124 - R661–T210–G208 UL125-G452**	**DERBO**	FL310, FL410	ALRAM–UMH Eastbound then two way
Ankara	**Karachi Bound to**	**ALRAM**	**G208-UL124 R661 –T210-G208 UL125**	**KEBUD**	FL310, FL410	ALRAM–UMH Eastbound

	Mumbai and beyond		**G208-R654-G665**	**ASVIB**		then two way
		DASIS		**ASVIB**	FL330	
Ankara	**Bahrain**	**ALRAM**	**G208-UL223-G667- W31-B417**	**TULAX**	FL310, FL410	ALRAM–UMH Eastbound then two way
			G208-UL223-W3–R659	**MIDSI**		
			G208 - UL223 W3 –G663	**ALSER**		
			G208-R654-R659	**MIDSI**		
			G208-R654–R659-G663	**ALSER**		
		DASIS	**UL333 R660-R661-R654-R659**	**MIDSI**	FL330	
			UL333 R660-R661-R654-R659–G663	**ALSER**		
Ankara	**Kuwait**	**ALRAM**	**G208-UL223-G667- W31-B417**	**TULAX**	FL310, FL410	ALRAM–UMH Eastbound then two way
		DASIS	**UL333 R660-R661-R654-G667-W31-B417**	**TULAX**	FL330	
Ankara	**Emirates**	**ALRAM**	**G208-R654-R659-G666-UL223**	**SIR**	FL310, FL410	ALRAM–UMH Eastbound then two way
		DASIS	**UL333 R660-R661-R654-R659-G666-UL223**	**SIR**	FL330	
	Landing UAE	**ALRAM**	**G208-UL223–W3-G666**	**ORSAR**	FL310, FL410	ALRAM–UMH Eastbound then two way
			G208-R654-R659-G666			
		DASIS	**UL333 R660-R661-R654-R659-G666-**		FL330	
Ankara	**Kabul**	**DASIS**	**R660-B121-T210-G208-R205-G202**	**KAMAR**	FL330	
			R660-A416-or MSD-G792	**SOKAM CHARN**		
			G208-G208/UL124-	**KAMAR**	FL310, FL410	ALRAM–

		ALRAM	**T210-G208-R205-G202**			UMH Eastbound then two way
			G208-G208/UL124-G781-A416-or G792	**SOKAM CHARN**		
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
Yerevan	**Bahrain**	**MAGRI**	**G482-R661-R654-R659-G663**	**ALSER**	FL390	
			G482-R661-R654-R659	**MIDSI**		
Yerevan	**Kuwait**	**MAGRI**	**G482-R661-R654-G667-W30-B417**	**TULAX**	FL390	
Yerevan	**Emirates**	**MAGRI**	**G482-R661-R654-R659-G666-W147 UL223**	**SIR**	FL390	
	Landing UAE	**MAGRI**	**G482-R661-R654-R659-G666**	**ORSAR**		
Yerevan	**Karachi bound to Delhi and beyond**	**MAGRI**	**-B121-UL333-UN319-G452**	**DERBO**	FL390	
	Karachi Bound to Mumbai and beyond		**B121-A416-N39-G208/UL125-W32-UL124-UL124**	**KEBUD**		
Yerevan	**Kabul**	**MAGRI**	**B121-UL333-UN319-R794-G202-**	**KAMAR**	FL390	
			B121-A416-or G792	**SOKAM CHARN**		
Yerevan	**Muscat**	**MAGRI**	**B121-A416-T212 G208 UL125-W32-R654**	**ORBIX**	FL390	
Baku	**Emirates**	**ULDUS**	**P574–R654-R659-G666-UL223**	**SIR**	FL370	
		DULAV	**R661 UL125-**		FL290	

Nakhchivan			**R654-R659-G666-UL223**			
		LALDA	**G670-B121-G667-R654-R659-G666-UL223**		FL250	
	Landing UAE	**ULDUS**	**P574-R659-G666**	**ORSAR**	FL370	
		DULAV	**R661 UL125-R654-R659-G666**		FL290	
		LALDA	**G670-B121-G667-R654-R659-G666**		FL250	
Baku Nakhchivan	**Bahrain**	**ULDUS**	**P574-R659-G663**	**ALSER**	FL370	
			P574-R659	**MIDSI**		
		DULAV	**R661 UL125-R654-R659-G663**	**MIDSI**	FL290	
		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	
Baku Nakhchivan	**Baghdad**	**ULDUS**	**P574–B411**	**PAXAT**	FL370	
		DULAV	**R661 UL125-R654-B411**		FL290	
		LALDA	**G670-B121-G667-B411**		FL250	
Baku Nakhchivan	**Muscat**	**ULDUS**	**UN319-A419-R654**	**ORBIX**	FL370	
		DULAV	**R661-R660-A416-N39-G208-W32-R654**		FL290	
		LALDA	**G670-A416-N39-G208-W32-R654-**		FL250	
Baku	**Kabul**	**ULDUS**	**UN319-R794-G202**	**KAMAR**	FL370	
			UN319–A416–	**SOKAM**		

Nakhchivan			**or G792**	**CHARN**		
		DULAV	**UL125-UP146-UL333-UN319-R794-G202-**	**KAMAR**	FL290	
		DULAV	**R661-R660-B121**		FL290	
Baku Nakhchivan	**Karachi bound to Delhi and beyond**	**DULAV**	**UL125 -UL333 - UN319 - G452**	**DERBO**	FL290	
		ULDUS	**UN319-G452**		FL370	
		LALDA	**G670-A416-N39-G208-G452**		FL250	
	Karachi Bound to Mumbai and beyond	**DULAV**	**R661-R660-A416– N39-G208-**	**KEBUD**	FL290	
		ULDUS	**UN319-UL125 G208**		FL370	
		LALDA	**G670-A416-N39-G208**		FL250	
Ashgabat	**Karachi**	**ORPAB**	**G775-G208 UL125-PG or G452**	**KEBUD DERBO**	FL270	
		GIRUN	**G792-G775-G208 UL125-or G452**		FL310	
Ashgabat	**Kabul**	**ORPAB**	**G775-G792– or A416**	**SOKAM CHARN**	FL270	
		GIRUN	**G792 or A416**		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	
			A419-G663-R659	**MIDSI**		
Ashgabat	**Kuwait**	**RIKOP**	**A419-G663-G669**	**NANPI**	FL280	
Ashgabat	**Baghdad**	**RIKOP**	**W4-A416-R660**	**DASIS**	FL280	
Ashgabat	**Ankara**	**RIKOP**	**W4-A416-G781-G208-G781**	**BONAM**	FL280	BONAM-UMH West bound then two way
Emirates	**Nakhchivan**	**DARAX**	**A419-W10-R659-R654-R661**	**DULAV**	FL240, FL300, FL400	
	Baku		**W32-G208-N39-R794**	**ULDUS**		
Emirates	**Yerevan**	**DARAX**	**A419-W10-R659-R654-R661-G482**	**MAGRI**	FL240, 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	
Emirates	**Ankara**	**DARAX**	**A419-W10-R659-R654-R661-R660-**	**DASIS**	FL240,FL300, FL400	
			A419-W10-R659-R654-G208-G781-	**BONAM**		BONAM-UMH West bound then two way
			A419-W10-W3-UL223-G781			
Kuwait	**Baku**	**TULAX**	**B417-W30-G667-P574**	**ULDUS**	FL250	
	Nakhchivan		**B417-W30-G667-R654-R661**	**DULAV**		
Kuwait	**Yerevan**	**TULAX**	**B417-W30-G667-R654-R661-G482**	**MAGRI**	FL250	
Kuwait	**Ashgabat**	**NANPI**	**G669-G663-A419**	**RIKOP**	FL350	
Kuwait	**Kabul**	**NANPI**	**G669-G452-A453**	**PIRAN**	FL350	
Kuwait	**Karachi**	**NANPI**	**G669-G452**	**DERBO**	FL350	
			G669-G452-UL124	**KEBUD**		
			G669-G452-R654-G665	**ASVIB**		
Kuwait	**Muscat**	**NANPI**	**G669-W10-R654**	**ORBIX**	FL350	
Kuwait	**Landing UAE**	**NANPI**	**R784-W143-G666**	**ORSAR**	FL350	
	UAE		**R784-W143-G666-UL223**	**SIR**		
Bahrain	**Karachi**	**MIDSI**	**A453-G452**	**DERBO**	FL190	
			A453-M561	**ASVIB**		
Bahrain	**Baku**	**MIDSI**	**R659-R654-P574**	**ULDUS**	FL200,FL340	
		ALSER	**G663-R659-R654-P574**		FL220,FL380	
	Nakhchivan	**MIDSI**	**R659-R654-R661**	**DULAV**	FL200,FL340	
		ALSER	**G663-R659-R654- R661**		FL220,FL380	
Bahrain	**Yerevan**	**MIDSI**	**R659-R654-R661-G482**	**MAGRI**	FL200,FL340	
		ALSER	**G663-R659-R654- R661-**		FL220,FL380	

			G482			
Bahrain	**Ashgabat**	**MIDSI**	**R659-G663-A419**	**RIKOP**	FL190	
		ALSER	**G663-A419**		FL250	
Bahrain	**Kabul**	**MIDSI**	**A453**	**PIRAN**	FL190	
Bahrain	**Landing UAE**	**KUVER**	**B416-R784-W143-G666**	**ORSAR**	FL270	
	UAE		**B416-R784-W143-G666-UL223**	**SIR**		
Bahrain	**Ankara**	**MIDSI**	**R659-R654-R661-R660**	**DASIS**	FL200,FL340	
		MIDSI	**R659-R654-G208-G781**	**BONAM**		BONAM-UMH West bound then two way
		MIDSI	**R659-W3-UL223-G781**			
		ALSER	**G663-R659-R654-R661-R660**	**DASIS**	FL220,FL380	
		ALSER	**G663-R659-R654-G208-G781**	**BONAM**		BONAM-UMH West bound then two way
		ALSER	**G663-W3-UL223-G781**			
Muscat	**Karachi**	**IMLOT**	**A791**	**JI**	FL270, FL370, FL390	
		DENDA	**R462**		FL290, FL310, FL350	
Muscat	**Baku**	**ORBIX**	**R654-W32-G208-N39-R794**	**ULDUS**	FL360	
	Nakhchivan		**R654-W32-G208-N39-A416-R661**	**DULAV**		
Muscat	**Yerevan**	**ORBIX**	**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	
Muscat	**Ankara**	**ORBIX**	**R654-W32-G208-N39-A416-R660-**	**DASIS**	FL360	
			R654-W32-G208-T210-R661-G208-G781	**BONAM**		BONAM-UMH West bound then two way

Baghdad	**Baku**	**PAXAT**	**B411-G202-G667-P574**	**ULDUS**	FL270	
Baghdad	**Yerevan**	**PAXAT**	**B411-G202-G667-R654-R661-G482**	**MAGRI**	FL270	
Baghdad	**Ashgabat**	**PAXAT**	**B411-G202-G663-A419**	**RIKOP**	FL270	
Baghdad	**Kabul**	**PAXAT**	**B411-G202**	**KAMAR**	FL270	
Baghdad	**Karachi**	**PAXAT**	**B411-G202-R654-G452-**	**DERBO**	FL270	
			B411-G202-R654-UL124	**KEBUD**		
			B411-G202-R654-G665	**ASVIB**		
Baghdad	**Muscat**	**PAXAT**	**B411-G202-R654**	**ORBIX**	FL270	
Baghdad	**Landing UAE**	**PAXAT**	**B411-G202-R659-G666**	**ORSAR**	FL270	
	UAE		**B411-G202-R659-G666-UL223-**	**SIR**		
Kabul	**Ankara**	**KAMAR**	**G202-R794-UN319-A416-R660**	**DASIS**	FL380	
		SOKAM	**A416-R660**		FL340	
		CHARN	**G792-B411-A416-RR660**		FL360	
Kabul	**Baku**	**KAMAR**	**G202-R794-UN319**	**ULDUS**	FL380	
		SOKAM	**A416-UN319**		FL340	
		CHARN	**G792-B411-A416-UN319**		FL360	
Kabul	**Nakhchivan**	**KAMAR**	**G202-R794-UN319-A416-R660-R661**	**DULAV**	FL380	
		SOKAM	**A416-R660-R661**		FL340	
		CHARN	**G792-B411-A416-R660-R661**		FL360	
Kabul	**Yerevan**	**KAMAR**	**G202-R794-UN319-A416-R660-G482**	**MAGRI**	FL380	
		SOKAM	**A416-R660-G482**		FL340	
		CHARN	**G792-B411-A416-R660-G482-**		FL360	
		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	
Karachi	**Baku**	**ASVIB**	**G665-R654-W32-G208-N39-R794**	**ULDUS**	FL260	
		KEBUD	**UL124-R654-W32-G208-N39-R794-**		FL360	
		DERBO	**G452-G208-N39-R794**		FL320	
	Nakhchivan	**ASVIB**	**G665-R654-W32-G208-N39-A416-R660-R661**	**DULAV**	FL260	
		KEBUD	**UL124-R654-W32-G208-N39-A416-R660-R661**		FL360	
		DERBO	**G452-G208-N39-A416-R660-R661**		FL320	
Karachi	**Yerevan**	**ASVIB**	**G665-R654-W32-G208-N39-A416-B121**	**MAGRI**	FL260	
		KEBUD	**UL124-R654-W32-G208-N39-A416-B121**		FL360	
		DERBO	**G452-G208-N39-A416-B121**		FL320	
Karachi	**Ashgabat**	**DERBO**	**G452-G775**	**ORPAB**	FL320	
		KEBUD	**G208-G775**		FL360	
Karachi	**Muscat**	**DERBO**	**G452-W2-R654**	**ORBIX**	FL320	
		ASVIB	**M561-W2-R654**		FL260	
Karachi	**UAE**	**DERBO**	**G452-A453-A419**	**DARAX**	FL320	
		ASVIB	**M561-A419**		FL260	
Karachi	**Bahrain**	**DERBO**	**G452-A453**	**MIDSI**	FL320	
		ASVIB	**M561-A453**		FL260	

Karachi	**Kuwait**	**ASVIB**	**G665-R654-G452-G669**	**NANPI**	FL260	
		KEBUD	**UL124-R654-G452-G669**		FL360	
		DERBO	**G452-G669**		FL320	
Karachi	**Baghdad**	**ASVIB**	**G665-R654-G202-B411**	**PAXAT**	FL260	
		KEBUD	**UL124-R654-G202-B411**		FL360	
		DERBO	**G452-R654-G202-B411**		FL320	
Karachi	**Ankara**	**ASVIB**	**G665-R654-W32-G208-N39-A416-R660**	**DASIS**	FL260	
		KEBUD	**UL124-R654-W32-G208-N39-A416-R660**		FL360	
		DERBO	**G452-G208-N39-A416-R660-**		FL320	
		ASVIB	**G665-R654-W32-G208-T210-R661-G208-G781**	**BONAM**	FL260	
		KEBUD	**UL124-R654-W32-G208-T210-R661-G208-G781**		FL360	
		DERBO	**G452-G208-T210-R661-G208-G781**		FL320	

ADJACENT FIR FREQUENCIES AND TELEPHONE NUMBERS

ATS UNIT	RTF Call Sign	Frequency		Telephone NO
Baku	Baku RADAR	**Main**	**133.100**	+994124971673
		Stand by	**133.300, 129.000, 135.100**	
Yerevan	Yerevan RADAR	**Main**	**128.800**	+37410593304
		Stand by	**124.000**	
Nakhchivan	Nakhchivan RADAR	**Main**	**127.900**	+994136446950
		Stand by	**118.200**	
Ankara	Ankara RADAR Via DASIS	**Main**	**127.300**	+903123980000 ext. 1153 or 1614 +903123980961
		Stand by	**129.300, 122.275**	
	Ankara RADAR Via BONAM, ALRAM	**Main**	**128.100**	
		Stand by	**132.900, 129.450**	
Baghdad	Tehran Control	**Main**	**123.000**	+9647901655461
		Stand by	**123.525**	
		Main	**125.300**	+9654762994

Kuwait	Kuwait RADAR	**Stand by**	**124.800, 132.100**	+9654342476 +9654760763
Bahrain	Bahrain RADAR	**Main**	**132.120**	+97317321080 +97317321081 +97317320486
		Stand by	**125.700**	
UAE	UAE RADAR	**Main**	**132.150, 124.850**	+97317321080 +97317321081 +97317320486
		Stand by		
Muscat	Muscat CONTROL	**Main**	**128.150, 119.800**	+96824519550 +96824519507
		Stand by		
Kabul	Kabul Information	**Main**	**120.900, 128.500**	+873761336375
		Stand by		
Karachi	Karachi Control	**Main**	**128.300**	+922199248038 +922199071953 +922199242148
		Stand by		
Ashgabat	Ashgabat RADAR	**Main**	**135.200**	
		Stand by	**135.800**	
Turkmenbashi	Turkmenbashi RADAR	**Main**		
		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 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

4.3 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.

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 980290	+903 12 398 0961	cellatin.brozkurt@dhmi.gov.tr	
Damascus FIR	+963 115 400164	+963 11 540 0312		
Jeddah FIR	+966 26 8550067			
Kuwait FIR	+965 43432476 +965 4760463			
Tehran FIR	+982 144 544116			

ICAO MID	0020 2 2267 4845/46/41	0020 2 2267 4843	icaomid@icao.int
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

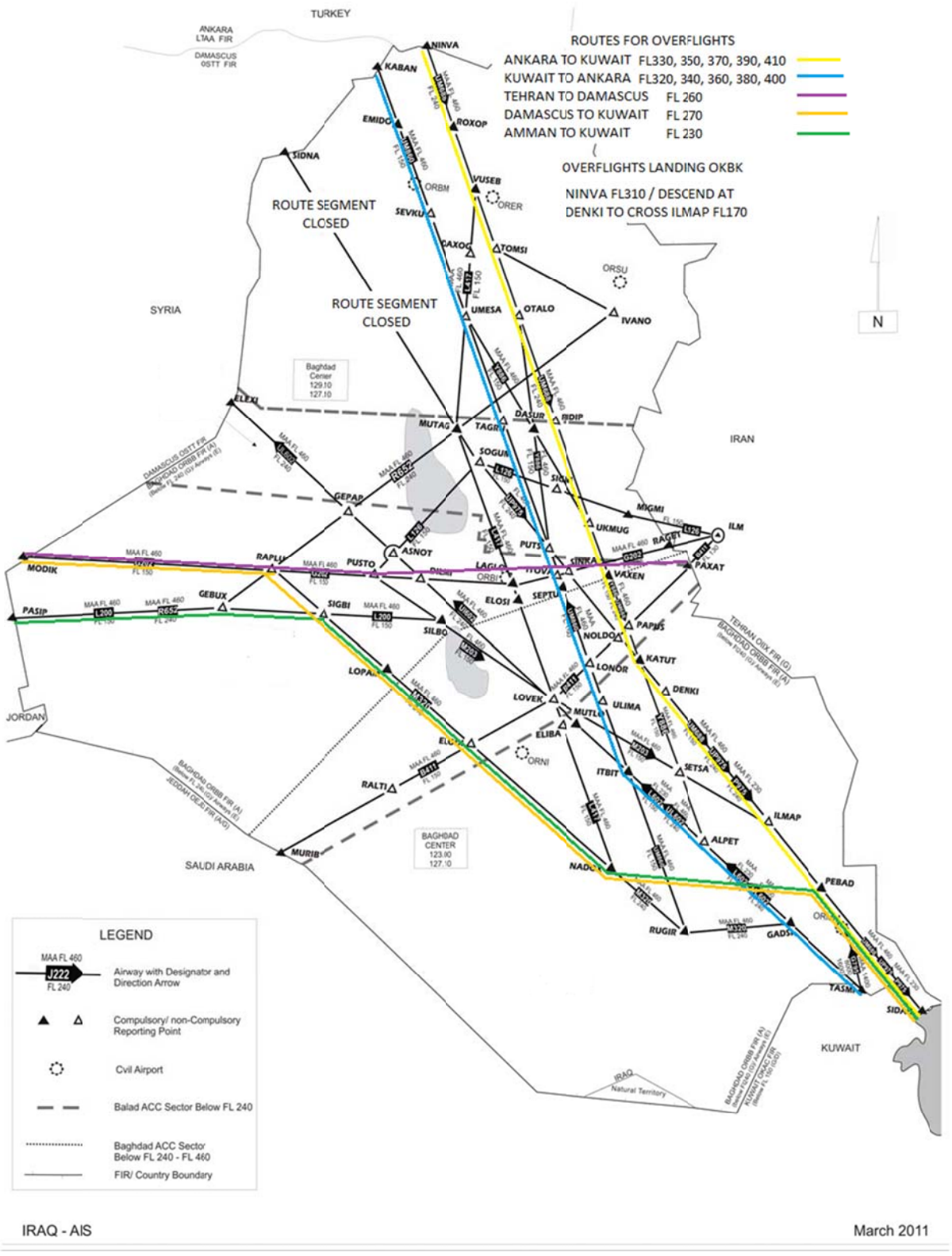
Unless instructed otherwise, flights entering the Baghdad FIR should use the following contingency routes:

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

For Transit Flights South North Except traffic Landing Kuwait

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

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 **UKMUG**NOT USABLE Air Route Segment.*


TURKEY
ANKARA LTAA FIR
DAMASCUS OSTT FIR
SYRIA
JORDAN
SAUDI ARABIA
IRAN
IRAQ
KUWAIT
ROUTES FOR OVERFLIGHTS
ANKARA TO KUWAIT FL330, 350, 370, 390, 410
KUWAIT TO ANKARA FL320, 340, 360, 380, 400
TEHRAN TO DAMASCUS FL 260
DAMASCUS TO KUWAIT FL 270
AMMAN TO KUWAIT FL 230
OVERFLIGHTS LANDING OKBK
NINVA FL310 / DESCEND AT
DENKI TO CROSS ILMAP FL170
ROUTE SEGMENT CLOSED
ROUTE SEGMENT CLOSED
N
NINVA
KABAN
EMIDO
ROXOP
SIDNA
ORBM
VUSEB
ORER
SEVKU
DAXOG
TOMSI
ORSU
UMESA
OTALO
IVANO
ELEXI
MUTAG
TAGRI
DASUR
RIDIP
SOGUN
SIGN
GEPAP
MOGMI
UKMUG
ILM
RAGRI
MODIK
RAPLU
PUSTO
ASNOT
PUTS
SINKA
VAXEN
PAXAT
PASIP
GEBUX
SIGBI
SILBO
ELOSI
SEPTU
NOLDO
PAPMS
KATUT
LONOR
DENKI
LOPAL
LOVEK
ULIMA
MUTLO
ELIBA
ORNI
ITBIT
SETSA
ILMAP
ALPET
RALTI
MUBIB
NADOR
PEBAD
RUGIR
GADSI
TASMI
SIDA
BAGHDAD CENTER 123.90 127.10
Baghdad Center 129.10 127.10
LEGEND
MAA FL 460
J222
FL 240
Airway with Designator and Direction Arrow
Compulsory/ non-Compulsory Reporting Point
Civil Airport
Balad ACC Sector Below FL 240
Baghdad ACC Sector Below FL 240 - FL 460
FIR/ Country Boundary
IRAQ - AIS
March 2011

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 XX.

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 4845/46/41	0020 2 2267 4843	icaomid@icao.int
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.

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

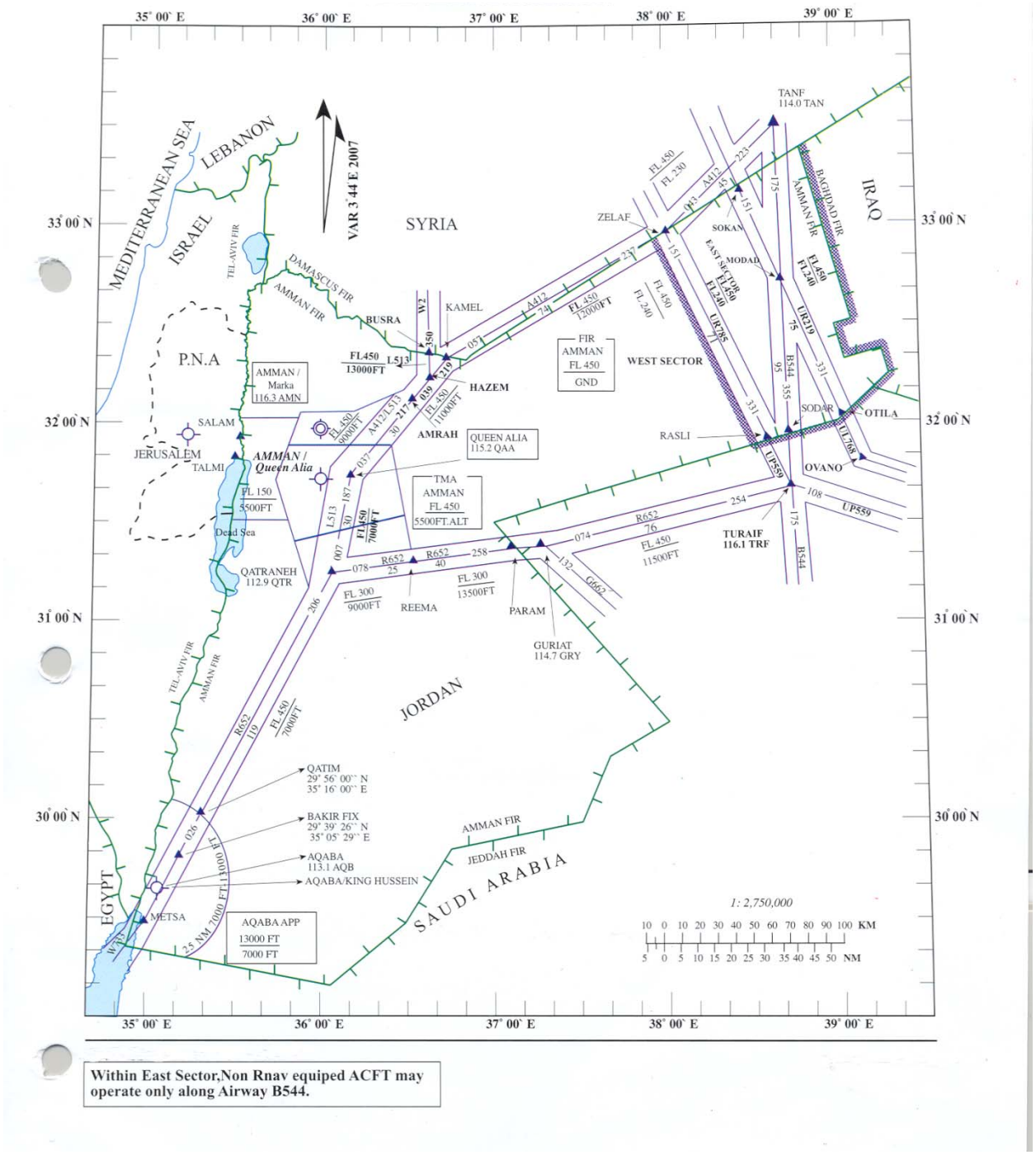
Unless instructed otherwise, flights entering the Amman FIR should use the following contingency routes:

CONTINGENCY ROUTE STRUCTURE FOR AMMAN FIR

Present ATS Route	Contingency Routings	FIRs Involved
EAST SECTOR: ATS routes B544, UR219, UR785 In case of closure: these routes, all traffic will have to be re routed as follows:	**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. **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.	• **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	**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. 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.	• **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)** 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.	• **Damascus FIR** • **Cairo FIR**
South border METSA and R652 to and from CAIRO FIR: in case of closure	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	• **Damascus FIR** • **Tel Aviv FIR**
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	COM

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				
Tehran FIR				

ICAO MID	0020 2 2267 4845/46/41	0020 2 2267 4843	icaomid@icao.int
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	EMAIL	AFTN
Damascus FIR				
Nicosia FIR				

ICAO MID	0020 2 2267 4845/46/41	0020 2 2267 4843	icaomid@icao.int
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.

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 4845/46/41	0020 2 2267 4843	icaomid@icao.int
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.

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 XX.

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 44544116 or 44554060 44544133 (Sector Controller)	0098 21 44544117	maj.alireza@yahoo.com alireza.majzoubi@gmail.com	OIIIZGZX
Karachi ACC	0092 21 9248 756	0092 21 9248 758	gmats@cyber.net.pk	OPKCZQZX OPKCZQZA
Mumbai ACC	0091 22 26828088	0091 22 26828066	WSOMUM@AAI.AERO	VABFZQZX VABFZQZA
Sana'a ACC	00967 1345402/3	00967 1344047	atccns@gmail.com	OYSNZQZX

				OYSNZQZA
Bahrain ACC	0097317321080/1081	00973 1732 1029	bahatc@caa.gov.bh	OBBBZQZX OBBBZQZA
Emirates ACC	0097125996969	0097125996850 0097125996852	atc@szc.gcaa.ae mdolbey@szc.gcaa.ae	OMAEZQZX OMAEYAYH
Jeddah ACC				

ICAO MID	0020 2 2267 4845/46/41	0020 2 2267 4843	icaomid@icao.int
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 WAYPOINT	DIRECTION	FL ASSIGNMENT	NEXT ACC	COM
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 (Muscat arrivals only) 280 and 360	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	SALALAH APP OR SANA'A	
ASPUX	WESTBOUND	340 AND ABOVE	BAHRAIN	

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

APPENDIX

CONTINGENCY FREQUENCIES FOR CONTROL AND/OR FLIGHT MONITORING SERVICES

ATS	DIRECTION	FL	NEXT ACC	COM

WAYPOINT		ASSIGNMENT		
RASKI/PARAR	EASTBOUND		MUMBAI	
TOTOX REXOD LOTAV KITAL	EASTBOUND		MUMBAI	
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	icaomid@icao.int
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.

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 XX.

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) 2-2665435	E-mail: egoca@idsc.gov.eg	HECAYAYX

Tripoli ACC	TBN	Fax: (218) 37454	TBN	HLLTYAYX
Jeddah ACC	TBN	Fax: (966) 2-6401477	TBN	OEJDYAYX
Ndjamena ACC	+253522520830	+253522526231	TBN	TBN
Asmara ACC	(291) 1-124334	Fax: (291) 1-181255	TBN	HHAAYAYX
Addis Ababa ACC	TBN	Fax: (251) 1-612533	E-mail: civil-aviation@telecom.net.et	HAAAYAYX
Nairobi ACC	TBN	Fax: (254) 20-822300	E-mail: info@kcaa.or.ke	HKNCYAYD
Entebbe ACC				
Kinshasa ACC				
Brazzaville ACC	+242055478182	+242069920433	TBN	FCCCZRZX

ICAO MID	0020 2 2267 4845/46/41	0020 2 2267 4843	icaomid@icao.int
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.

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	EvenF400, 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**	**COM**
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 12: 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	icaomid@icao.int
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.

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.

ADJACENT ATSU CONTACT DETAILS:

UNIT	TEL. No	FAX No	EMAIL	AFTN
Bahrain FIR	9731 7321080 9731 7321081	9731 7321029	bahatc@caa.gov.bh catco@caa.gov.bh	OBBBZQZX OBBBZQZA
Muscat FIR	9682 4519550 96824519507	9682 4519932	n.almazroui@caa.gov.om	OOMMZQZX
Qatar TMA	9744 4622515 9744 4656561 9744 4656562	9744 4621765	doha.ais@caa.gov.qa ahmed@caa.gov.qa	OTBDZTZX
Tehran FIR	9821 44544116 9821 44544060	9821 44544117	Maj.alireza@yahoo.com	OIIIZGZX OIIIZQZX

ICAO MID	0020 2 2267 4845/46/41	0020 2 2267 4843	icaomid@icao.int
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.

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:

<u>WESTBOUND</u> **OVERFLYING AND LANDING TRAFFIC**

ATS Waypoint	ATS Route	ATSU Frequency	Transfer Waypoint	Available Flight Level	EXIT ATS Waypoint	NEXT ATSU Frequency	REMARKS
MENSA	N571	MUSCAT ACC	ATBOR	FL320, FL340, FL380 and	BALUS	BAHRAIN 132.125	

		119.8		Above			
MENSA	N571	MUSCAT ACC 119.8	ATBOR	FL 260, FL300	TONSA	BAHRAIN 132.125	
SODEX	N563	MUSCAT ACC 124.7	**ADV**	FL280, FL360	BALUS	BAHRAIN 132.125	
	Z994	MUSCAT ACC 124.7	MISOD	FL300, FL320,	MEKMA	BAHRAIN 132.125	Available only for Traffic Landing Doha
TAPRA	M762	MUSCAT ACC 119.8	**TAPRA**	FL180	**TAPRA**	DUBAI APP 124.9	Available only for Traffic Landing within Dubai CTA
ITRAX	P899	MUSCAT ACC 124.7	**ITRAX**	FL160		ABU DHABI APP 124.4	Available only for Traffic Landing within Abu Dhabi CTA
LUDID	M628	MUSCAT ACC 124.7	**LUDID**	FL340 and Above		BAHRAIN ACC 2992 8918 5667 (HF)	--------

EASTBOUND

ATS Waypoint	**ATS Route**	**ATSU Frequency**	**Transfer Waypoint**	**Available Flight Level**	**EXIT ATS Waypoint**	**NEXT ATSU Frequency**	**REMARKS**
NADAM	A791	BAHRAIN 132.125	SHJ	FL390	LALDO	MUSCAT ACC 119.8	
			SHJ	FL250, FL290, FL330, FL370	TONVO	MUSCAT ACC 119.8	
SIR	L223	TEHRAN/133.4	RAGOL	FL350	TARDI	MUSCAT ACC/124.7	
LABTA	Y505	BAHRAIN/132.125	80NM FROM SHJ	FL190/FL170	--------	DUBAI APP/124.9	Available only for Traffic Landing Northern Emirates
ORSAR	G666 /B416	THRAN/ 133.4	80NM FROM SHJ	A090/FL210	--------	DUBAI APP/124.9	Available only for Traffic Landing Northern Emirates
GITEX	N685	BAHRAIN 132.125	ADV	FL270, FL310, FL390	LABRI	MUSCAT ACC 124.7	--------
			60NM FROM ADV	FL190	--------	ABU DHABI APP/124.4	Available only for 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 Muscat ACC
L223	DUBAI APP 124.9	**TARDI**	FL210	MUSCAT ACC 124.7	Abu-Dhabi Shall Climb Traffic to FL210 then to be Transferred to MUSCAT ACC
N318	ABU DHABI APP 124.4	**LABRI**	FL230	MUSCAT ACC 124.7	Abu-Dhabi Shall Climb Traffic to 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 4845/46/41	0020 2 2267 4843	icaomid@icao.int
IATA	+962 6 569 8728	+962 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.

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 III

Approved by the President on behalf of the ICAO Council

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 **Appendix 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.

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.
Revision Conditions	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 **Appendix A.**

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).

Scenario 7 (Purple routes): Flights planning to avoid the Western Middle East, Jordan, Lebanon, Saudi Arabia and Syria by operating through Turkey, Iraq, Kuwait and Bahrain.

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 *Procedures for Air Navigation Services—Air Traffic Management* (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.

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 **Appendix F**. 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

Overflight approval requirements

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

Appendix G ICAO Interception Procedures

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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						

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
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	

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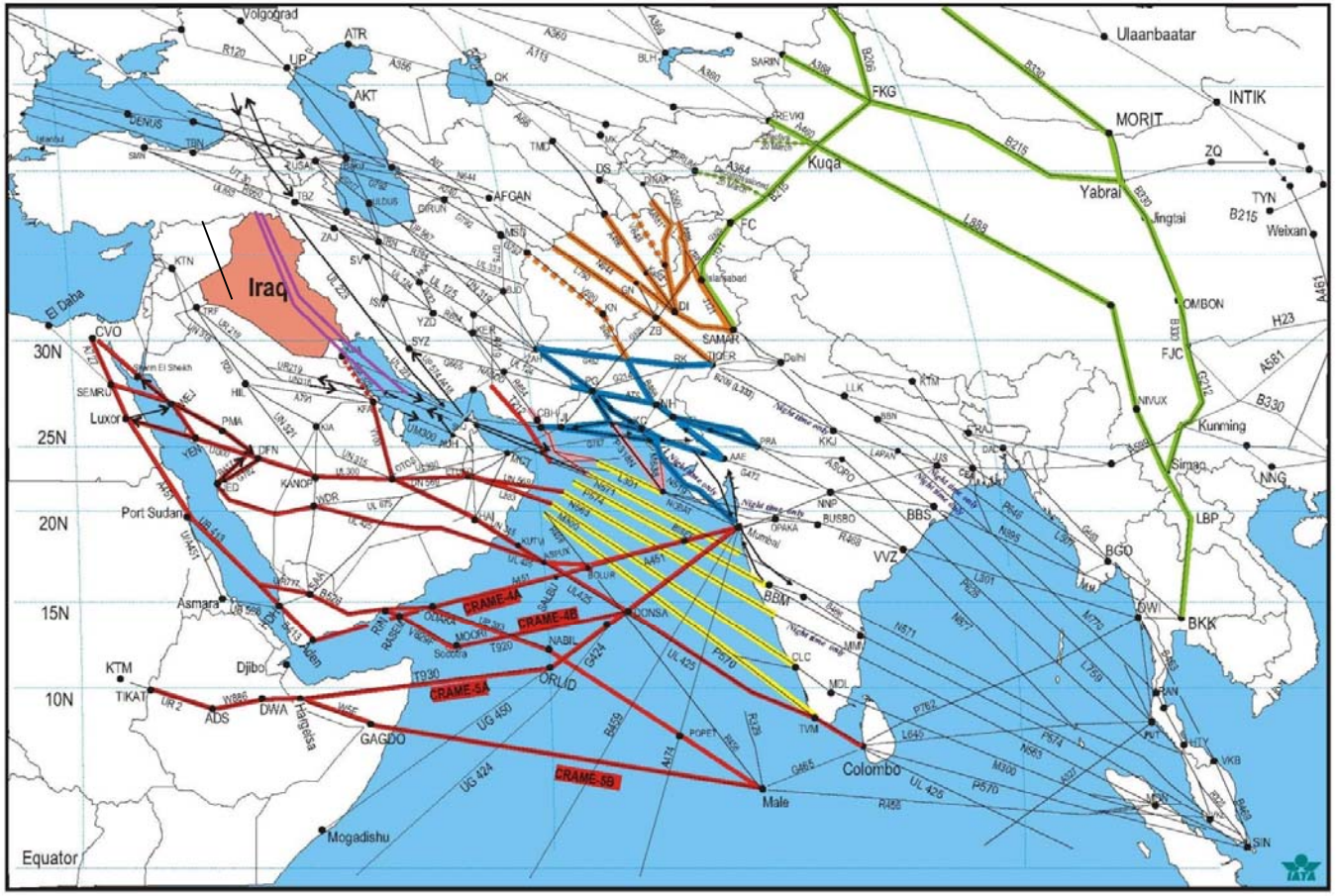
APPENDIX B
CONTINGENCY ROUTING SCHEME



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 L308 (W)–PARET–JI
3.6	JI/KC	JI–A791(E)–LATEM–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–JHANG ISMAIL-KHAN (DI)–P500–PADDY–FIRUZ–P500/G500 *Note:— Contingency levels FL310-FL390 within Kabul FIR.*
4.2	M881	DELHI–A466–LAHORE–A466–JHANG ISMAIL KHAN (DI)–P500–ADINA M881–LAJAK EGPAN *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	JHANG 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/N636/P628/G792	NAWABSHAH–B466/N636–KANDAHAR–N636/P628–CHARN–G792–MASHHAD–GIRUN or MASHHAD–G775–ASHGABAT *Note:— Contingency levels FL310-FL350.* *RNP 10 approved aircraft only*
4.7	P628/B466/	P628–ASOPO–A791–BHOPAL–'PRA' VOR–A791W–CHOR–B210–NAWABSHAH–B466–KANDAHAR–V390–CHARN–G792–MASHHAD–GIRUN or MASHHAD–G775–ASHGABAT *Note 1:— Contingency levels FL310-FL350 within Kabul FIR.* *Note 2:— Within Tehran FIR G792 minimum enroute altitude FL310.*

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)–P751–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–N569 ALRIK (N2206.5 E04825.6) L883 PMA YEN UL300–Luxor (LXR)–A727–Cairo (CVO). *Westbound routing only*; ii) LOTOS– N569/L883 PMA YEN –Yenbo (YEN)–A411–WEJ–A411–Sharm el Sheikh (SHM)–A411–Cairo (CVO). *Westbound routing only*; iii) Cairo (CVO)–A727–SEMRU (N28:02.0 E032:03.1)–B418–WEJH (WEJ)–UL573–Dafinah (DFN)–M628 UMRAN (N2315.1 E04520.4) L883 ALRIK (N2206.5 E04825.6) –LOTOS (N22 12.7 E045 48.0). *Eastbound routing only*; iv) LOTOS–N569 ALRIK L883 – UMRAN (N2315.1 E04520.4) M628 Dafinah (DFN)–G782–Jeddah (JDW). Or N569 RABTO (N2216.1 E04003.4) G782 JDW *Westbound routing only*; v) Jeddah (JDW)–B417–BONUM (N2212.9 E03938.1)–N569 RABTO (N2216.1 E04003.4) N569–LOTOS. *Eastbound routing only*; and vi) LOTOS–Y100–KFA for flights to/from Bahrain, Dammam and Doha airports (consult local NOTAMs).

CRAME 3B	Katunayake (KAT)–P570–TVM– UL425–ASPUX (1744.1N 06000.1E)–UN315–HAI–LOTOS (N22 00.0 E050 39.2) then flight plan route to destination (consult local NOTAMs). *Note:— This is the most northerly route available. Traffic may route beyond LOTOS (N22:00.0 E050:39.2) via:* i) LOTOS–N569 ALRIK (N2206.5 E04825.6) L883 PMA YEN UL300–Luxor (LXR)–A727–Cairo (CVO).*Westbound routing only;* ii) LOTOS– N569/L883 PMA YEN –Yenbo (YEN)–A411–WEJ–A411–Sharm el Sheikh (SHM)–A411–Cairo (CVO). *Westbound routing only;* iii) Cairo (CVO)–A727–SEMRU (N28:02.0 E032:03.1)–B418–WEJH (WEJ)–UL573–Dafinah (DFN)–M628 UMRAN (N2315.1 E04520.4) L883 ALRIK (N2206.5 E04825.6) –LOTOS (N22 12.7 E045 48.0). *Eastbound routing only;*

	iv) LOTOS–N569 ALRIK L883 – UMRAN (N2315.1 E04520.4) M628 Dafinah (DFN)–G782–Jeddah (JDW). Or N569 RABTO (N2216.1 E04003.4) G782 JDW. *Westbound routing only;* v) Jeddah (JDW)–B417–BONUM (N2212.9 E03938.1)–N569 RABTO (N2216.1 E04003.4) N569–LOTOS. *Eastbound routing only; and* vi) LOTOS–Y100–KFA *for flights to/from Doha (consult local NOTAMs).*

CRAME 4A	Mumbai (BBB)–P751–RIGAM (N14:39.5 E05304.2)–B526–RIYAN (RIN)–M559 ITOLI (N1528.4 E04509.4) M301 SAA–UR777–DANAK–UB413/R776–Port Sudan then flight plan route to destination (consult local NOTAMs). *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:* - *RIGAM–P751–Aden (KRA)–B413– DANAK–B413/R776–Port Sudan then flight plan route to destination (consult local NOTAMs).*

CRAME 4 B	Katunayake (KAT)–P570–Trivandrum (TVM) –UL425–DONSA (N14:35.2 E065:11.6)–UP323– GIDAS DCT–SOC (N1238.3 E05354.4) (Socotra) – N764 –RIN– M559 ITOLI (N1528.4 E04509.4) M301 –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:* - *ORBAT (N1406.6 E05039.4)– P751–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)–UT382–AVEDA (N0913.5 E04911.4) – DAROT (N0911.4 E04721.2)–Hargeisa (HARGA) then flight plan route to destination *(consult local NOTAMs).*
CRAME 5B	Male (MLE)–DCT–MAGUG (N05 20.7 E006 00.) UT384 DAROT (N0911.4 E04721.2)—Hargeisa (HARGA) 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).

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–RULAD (N4330 E08044) G270 BERTO (N4332 E07948.4)–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–KASHI (KHG) KURUM–R/UR356
6.5	B215/A360	DELHI–A466–LAHORE–J121–BATAL–J131–GILGIT–G325–PURPA–B215–KUQA–A460– RULAD (N4330 E08044) G270 BERTO (N4332 E07948.4)–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

Scenario 7 (Purple routes): Flights planning to avoid the western Middle East States, Jordan, Lebanon, Saudi Arabia and Syria by operating on the existing routes through Turkey, Iraq, Kuwait and Bahrain.

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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)

(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:

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.

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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			

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 FAA IACA IAOPA IBAA Jeppesen KSS Chart department 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)*.

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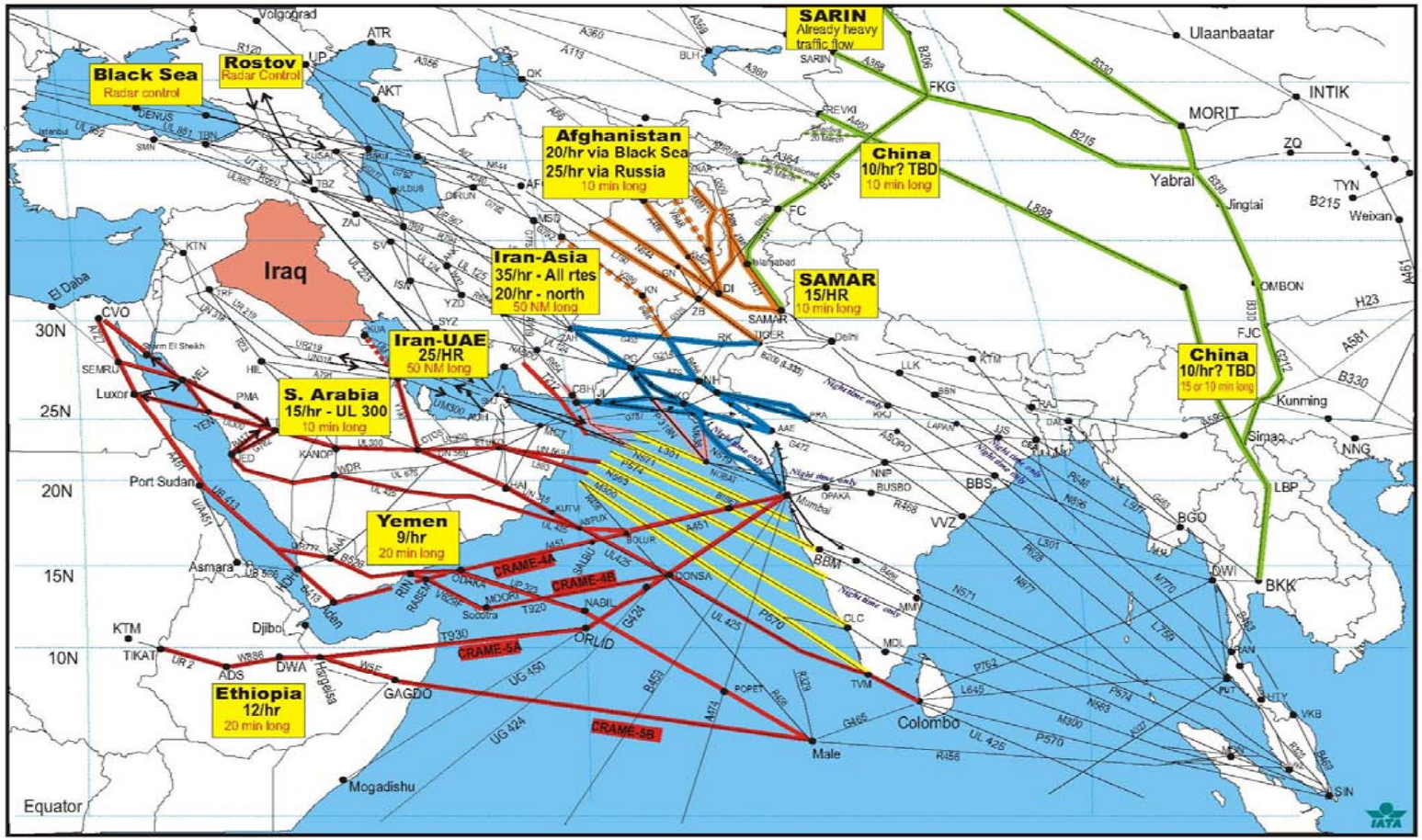
APPENDIX F

CONTINGENCY ROUTING SCHEME WITH 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.**

Appendix G
ICAO Interception Procedures

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:

Table 2.1

Phrases for use by INTERCEPTING aircraft			*Phrases for use by INTERCEPTED aircraft*		
Phrase	*Pronunciation*1	Meaning	Phrase	Pronunciation1	Meaning
CALL SIGN	KOL 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	VILL-KO	Understood Will comply
DESCEND	DEE-SEND	Descend for landing	CAN NOT	KANN NOTT	Unable to comply
YOU LAND	YOU LAAND	Land at this aerodrome	REPEAT	REE-PEET	Repeat your instruction
PROCEED	PRO-SEED	You may proceed	AM LOST	AM LOSST	Position unknown
			MAYDAY	MAYDAY	I am in distress
			HIJACK3	HI-JACK	I have been hijacked
			LAND (place name)	LAAND (place name)	I request to land at (place name)
			DESCEND	DEE-SEND	I require descent

.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".

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Appendix 4C to the Report on Agenda Item 4

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 Signed	Sent
EGYPT	GREECE JORDAN LYBIA CYPRUS SAUDI ARABIA SUDAN	Signed Signed Signed Signed Signed 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

STATE	CORRESPONDING STATES	STATUS	SOFT COPIES SENT TO ICAO
JORDAN	EGYPT IRAQ ISRAEL SAUDI ARABIA SYRIA	Signed 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 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/6
Appendix 4D to the Report on Agenda Item 4

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REPORT ON AGENDA ITEM 5: FUTURE WORK PROGRAMME

5.1 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/7 meeting could be tentatively scheduled for the second quarter of 2014. 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.

5.2 The meeting agreed to the updated Provisional Agenda for the ARN TF/7 meeting, as at **Appendix 5A** to the Report on Agenda Item 5.

5.3 The meeting reviewed and agreed to the ARN/TF Terms of Reference (TOR) as at **Appendix 5B** to the Report on Agenda Item 5.

ARN TF/6
Appendix 5A to the Report on Agenda Item 5

SEVENTH MEETING OF THE ATS ROUTE NETWORK TASK FORCE

(ARN TF/7)

PROVISIONAL AGENDA

Agenda Item 1:	Adoption of the Provisional Agenda
Agenda Item 2:	Follow-up on MIDANPIRG Conclusions and Decisions relevant to ATS Route Network
Agenda Item 3:	Review ATS Route Network
Agenda Item 4:	Contingency Planning
Agenda Item 5:	Review of Air Navigation deficiencies in the ATS Routes Network
Agenda Item 6:	Future Work Programme
Agenda Item 7:	Any other business

ARN TF/6
Appendix 5B to the Report on Agenda Item 5

MID ATS ROUTE NETWORK TASK FORCE
(ARN TF)

A) TERMS OF REFERENCE

1. Review the MID ATS Route Network in order to assess its capacity and constraints.

2. Based on the airspace user needs and in coordination with stakeholders (States, International Organizations, user representative organizations and other ICAO Regions), identify requirements and improvements for achieving and maintaining an efficient route network in the MID Region.

3. Propose a strategy and prioritized plan for development of improvements to the route network, highlighting:

   - areas that require immediate attention
   - interface issues with adjacent ICAO Regions

4. Develop a working depository for route proposals that will be used as a dynamic reference document for ongoing discussions on routes under development/ modification. In this respect, the Task Force should explore the utility that can be realized from the route catalogue concept/ATS routes database.

5. Engage the necessary parties regarding routes under consideration, especially the Military Authorities.

6. In coordination with the MIDRMA, carry out safety assessment of the proposed changes to the ATS Route Network.

7. After adoption by the ATM/AIM/SAR SG, or as delegated by the same, submit completed route proposals for amendment of the Basic ANP Table ATS-1, to the MID Office for processing.

B) COMPOSITION

The ARN TF will be composed of:

a) experts nominated by Middle East Provider States from both Civil Aviation Authority and Military Authority;

b) IATA, IFALPA and MIDRMA; and

c) other representatives from adjacent States and concerned international organizations (on ad-hoc basis).

C) WORKING ARRANGEMENTS

The Task Force shall:

a) report to the ATM/AIM/SAR Sub Group; and

b) meet as required and at least once a year.

REPORT ON AGENDA ITEM 6: ANY OTHER BUSINESS

6.1 Nothing has been discussed under this Agenda Item.

ARN TF/6
Attachment A to the Report

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