International Civil Aviation Organization

MIDANPIRG ATM/SAR/AIS Sub-Group

Twelfth Meeting (ATM/SAR/AIS SG)
(Cairo, Egypt, 21 - 24 November 2011)

Agenda Item 8: Contingency Plans

IMPLEMENTATION OF CONTINGENCY PLANS IN THE MID REGION

(Presented by the Secretariat)

SUMMARY

The aim of this paper is to highlight the requirements for development and promulgation of contingency plans and review the status of implementation in the MID Region.

Action by the meeting is at paragraph 3.

REFERENCES

- ARN TF/4 Report
- DGCA MID/1 Report
- MIDANPIRG/12 Report

1. INTRODUCTION

1.1 The provisions regarding contingency arrangements, which detail States ATS obligations to develop and promulgate contingency plans for implementation in the event of disruption or potential disruption of ATS and supporting services, are contained in Chapter 2 of Annex 11. Guidance material relating to the development, promulgation and implementation of contingency plans is contained in Attachment C to Annex 11.

1.2 The MIDANPIRG/12 meeting, held in Amman, 9-13 October 2010 was attended by a total of seventy six (76) participants, which included experts from twelve (12) States (Bahrain, Egypt, Iraq, Iran (Islamic Republic of), Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia and U.A.E.) and four (4) International Organizations (CANSO, IATA, IFALPA and Jeppesen).

1.3 The First meeting of the Director General of Civil Aviation Middle East Region (DGCA MID/1) was held in Abu-Dhabi, UAE 22-24 March 2011 and was attended by a total of sixty eight (68) participants, which included the DGCA's from eleven (11) States (Bahrain, Egypt, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Sudan, Syria and U.A.E.) and six (6) International Organizations (AACO,ACAC,CANSO, IATA, IFALPA and ICAO).

1.4 The Fourth meeting of Air Traffic Services Route Network Task Force (ARN TF/4) was held in Amman, Jordan, 16-18 May 2011. The meeting was attended by a total of thirty (30) participants, including experts from nine (9) States (Bahrain, Egypt, Jordan, Kuwait, Oman, Qatar, Saudi Arabia, United Arab Emirates and Yemen) and (3) three International Organizations (CANSO, IACA and IATA).

2. DISCUSSION

2.1 MIDANPIRG/12 meeting acknowledged 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 airspaces, and some had been prepared, circulated and pending signature.

2.2 MIDANPIRG/12 meeting recognized that progress was achieved in the implementation of contingency measures in the MID Region. The MIDANPIRG/12 meeting urged MID States to exert extra effort to comply with the provisions of Annex 11 and Annex 15 related to the promulgation of contingency plans using the Template endorsed by MIDANPIRG. Accordingly, MIDANPIRG/12 meeting agreed to monitor the status of implementation of contingency plans through the continuous update of the list of air navigation deficiencies.

2.3 The DGCA-MID/1 meeting recalled Annex 11 provisions related to the development and promulgation of contingency plans. In this respect, the meeting noted that, despite, the importance given by MIDANPIRG and its subsidiary bodies to the subject, the development and promulgation of contingency plans remains one of the long standing deficiencies in the MID Region, which is recorded against all MID States. In this respect, it was highlighted 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. The current status of Contingency agreements is shown at **Appendix A** to this working paper.

2.4 Taking into consideration the current events in the MID Region and for ensuring safety and continuity of civil aviation, the meeting recognized that it's becoming more imperative and pressing that all MID States take necessary measures to sign the pending Contingency agreements with adjacent FIRs/States and expedite the promulgation of their contingency plans. Accordingly, the DGCA-MID/1 meeting agreed to the following Conclusion:

DGCA-MID/1 CONCLUSION 1/6 – CONTINGENCY PLANS

That, for the interest of ensuring safety and continuity of civil aviation, MID States:

a) accord high priority and secure necessary resources to update, complete and promulgate their contingency plans; and

b) send copies of their contingency plans (even those which are still in draft format) to the ICAO MID Regional Office as soon as possible.

2.5 Based on the above, the ARN TF/4 meeting reiterated the DGCA – MID/1 call for the development and promulgation of contingency plans which remains as one of the long standing deficiency in the MID Region and recognizing that it is becoming more imperative and pressing that all MID States take necessary measures to sign the pending agreements with adjacent FIRs/States and expedite the promulgation of their contingency plans. The ARN TF/4 meeting further stressed that MID States forward copies of their contingency plans including the signed agreements to the ICAO MID Regional Office as required by Annex 11. Accordingly the ARN TF/4 meeting agreed to the following draft conclusion:

Why	To develop a harmonized States Contingency Plan.
What	The development of a harmonized MID Regional Contingency Plan.
Who	(ICAO/States)
When	ARN TF/5 Meeting

DRAFT CONCLUSION 12/X: THE DEVELOPMENT OF MID REGIONAL CONTINGENCY PLAN

That, ICAO MID Regional Office:

a) compile States Contingency plans: and

b) develop MID Regional Contingency plan in coordination with MID States.

2.6 The meeting may wish to note that the ICAO MID Regional Office has started developing the MID Regional Contingency plan from the information compiled from the Contingency plans received from States that sent their Plans as at **Appendix B** to this working paper. Furthermore, the meeting may wish to update the Contingency Routing Scheme for Asia/Middle East/Europe – 2003 **(CRAME-03**) document for inclusion in the MID Regional Contingency plan as at **Appendix C** to this working paper, and the Contingency point of contacts as at **Appendix D** to this working paper.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information presented in this paper and **Appendices**;

b) update the Contingency agreement status as at **Appendix A** to this working paper;

c) endorse Draft Conclusion in 2.5;

d) endorse MID Regional Contingency plan as at **Appendix B** to this working paper; and

e) update CRAME – 03 Document and **Appendix D** for inclusion in the MID Regional Contingency plan.

APPENDIX A

CONTINGENCY AGREEMENT STATUS

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	Under development Or Completed : signed with	S	A. Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services B.		Dec, 2011	A

STATE	CORRESPONDING STATES	STATUS	SOFT COPIES SENT TO ICAO
BAHRAIN	IRAN KUWAIT OMAN QATAR SAUDI ARABIA UAE	Signed Signed Signed Signed Signed	
EGYPT	GREECE ISRAEL JORDAN LYBIA CYPRUS SAUDI ARABIA SUDAN		
IRAN	ARMENIA AZERBAIJAN TURKMANISTAN AFGHANISTAN BAHRAIN IRAQ KUWAIT OMAN PAKISTAN TURKEY UAE		
IRAQ	IRAN JORDAN KUWAIT SAUDI ARABIA SYRIA TURKEY		
JORDAN	EGYPT IRAQ ISRAEL SAUDI ARABIA SYRIA		Sent

STATE	CORRESPONDING STATES	STATUS	SOFT COPIES SENT TO ICAO
KUWAIT	BAHRAIN IRAN IRAQ SAUDI ARABIA	Signed Signed	
LEBANON	ISRAEL CYPRUS SYRIA		
OMAN	BAHRAIN INDIA IRAN PAKISTAN SAUDI ARABIA UAE YEMEN	Signed Signed Signed	Sent
QATAR	BAHRAIN	Signed	
SAUDI ARABIA	BAHRAIN EGYPT ERITREA IRAQ JORDAN KUWAIT OMAN SUDAN YEMEN	Signed	
SYRIA	IRAQ JORDAN LEBANON CYPRUS TURKEY		
UAE	BAHRAIN IRAN OMAN SAUDI ARABIA	Signed Signed	

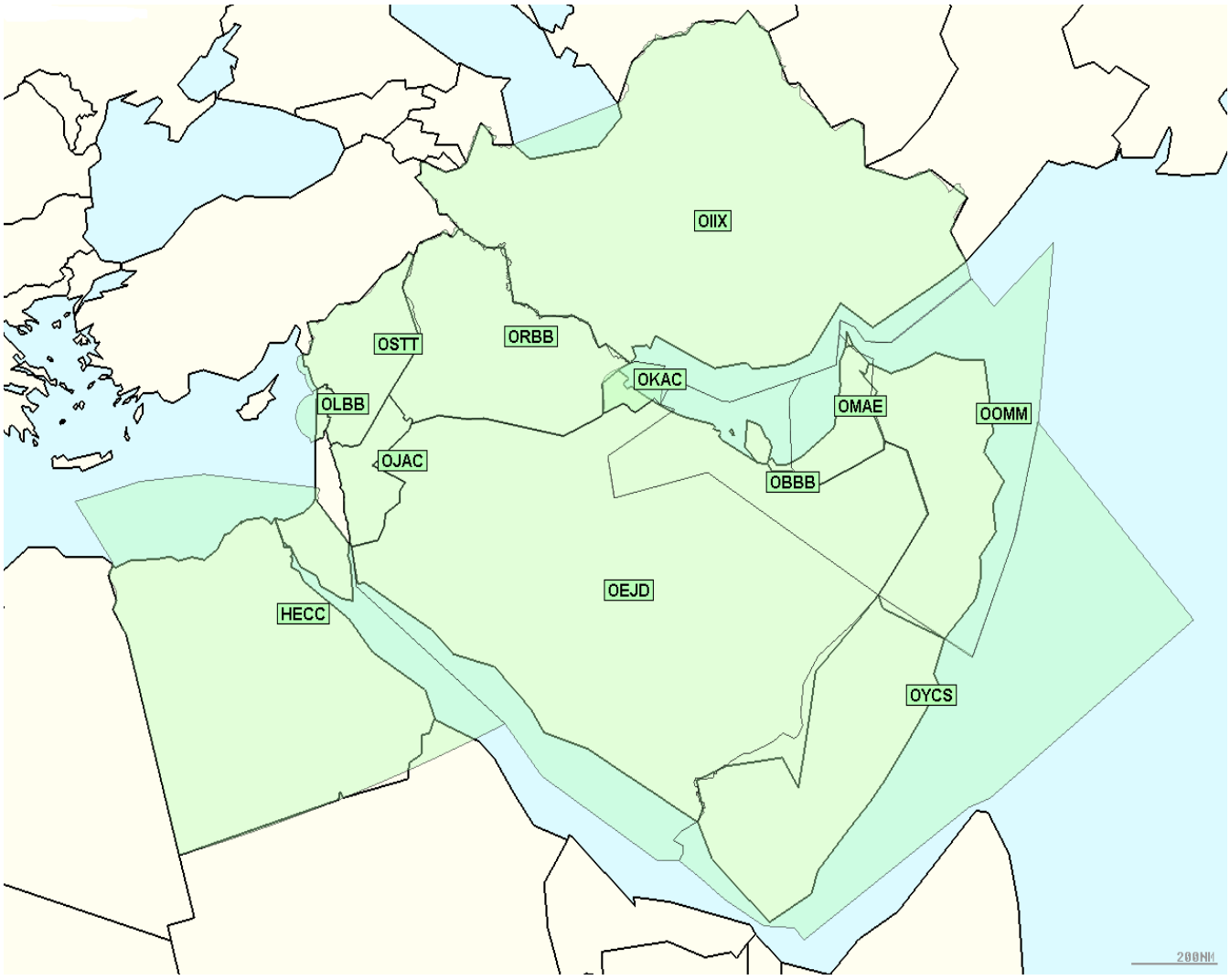
STATE	CORRESPONDING STATES	STATUS	SOFT COPIES SENT TO ICAO
YEMEN	DJIBOUTI ERITREA ETHIOPIA INDIA OMAN SAUDI ARABIA SOMALIA	Signed	

APPENDIX B

MID Doc 002

AIR TRAFFIC MANAGEMENT OPERATIONAL CONTINGENCY PLAN

MID REGION



First Edition: 22 May 2011

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

EXCLUSION OF LIABILITY

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

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

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

First published: 22 May 2011

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

TABLE OF CONTENTS

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.

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

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

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

Part 1 – Contingency Situations Affecting ATC Facilities

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

Part 2 – Contingency Situations Affecting Multiple FIRs

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

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

States and FIRs affected

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

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

Bahrain

- Bahrain FIR

Egypt

- Cairo FIR

Iran, Islamic Republic of

- Tehran Control

Iraq

- Baghdad Control

Jordan

- Amman Control

Kuwait

- Kuwait Control

Lebanon

- Beirut Control

Libya

- Tripoli Control

Oman

- Muscat Control

Qatar

- Bahrain Control

Saudi Arabia

- Jeddah Control
- Riyadh Control

Sudan

- Khartoum Cotrol

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)".

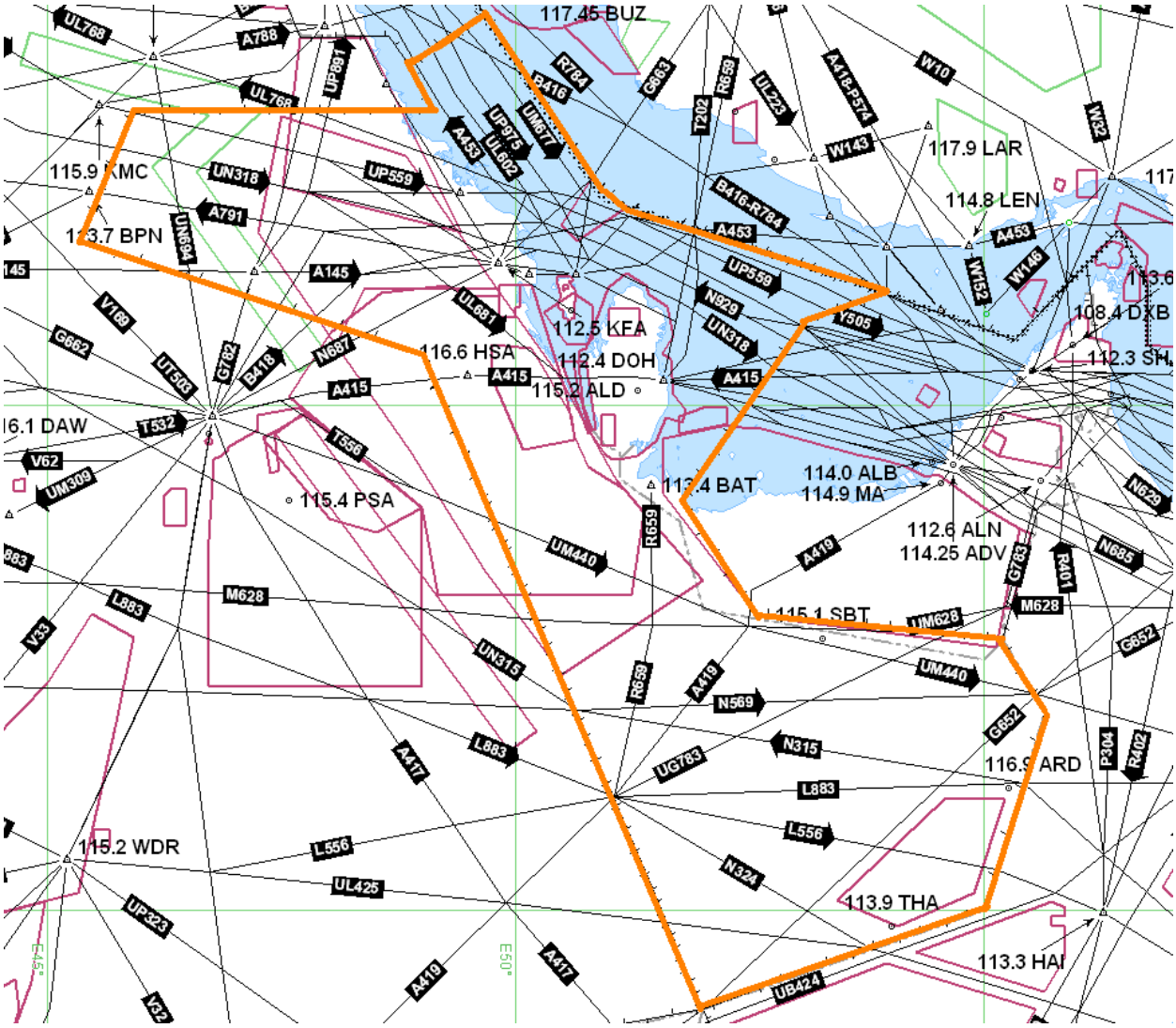
When the level change begins, the flight should make the following broadcast:

"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
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. 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

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 ------- 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 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 ------- ATC Unit 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.

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. A listening watch on these frequencies must be maintained.

1.6.2 For flights within the Bahrain FIR – Westbound

Muscat ACC, Emirates ACC and Tehran 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	0098 21 44544116 or 44554060 44544133 (Sector Controller)	0098 21 44544117	maj.alireza@yahoo.com alireza.majzoubi@gmail.com	OIIIZGZX
Muscat ACC	00968 24 519 550	00968 24 519 -- --		OOMMZQZX
Riyadh ACC	00966	00966		
Jeddah ACC	00966	00966		
Sana'a ACC	00967 1345402/3	00967 1344047	atccns@gmail.com	OYSNZQZX OYSNZQZA
Bahrain ACC	00973 1732 1080/1081	00973 1732 1029	bahatc@caa.gov.bh	OBBBZQZX OBBBZQZA

UAE ACC	00971	00971		OMAEZQZX OMAEYAYH

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

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

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:

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

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 within 48 hours. In the interim period no ATC service will be available 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 THE 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 DLA 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 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 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
Tel Aviv FIR
Amman FIR
Jeddah FIR
Riyadh ACC,
Khartoum FIR
Tripoli FIR

2.3 NOTIFICATION PROCEDURES

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

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

2.4 LIMITED SERVICE – PROCEDURES

2.4.1 Disruption of ground/air communication capability

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

Situations which could result in a Limited Service are:

Equipment Failure

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

Propagation

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

Staffing

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

Security Threat

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

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

2.4.2 Disruption of ability to provide control services

Cairo ACC shall determine, co-ordinate and promulgate any necessary restrictions to meet the service limitation. Traffic in possession of a valid ATC clearance shall have priority over any other traffic. 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

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

Contingency tracks

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

Air Traffic Flow Management

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

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

Responsibilities of adjacent ANSPs

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

2.5 NO SERVICE – PROCEDURES

2.5.1 Loss of ground/air communication capability

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

Situations which could result in No Service being provided are:

e) Equipment Failure;

- Transmitters (Loss of all Transmitters)
- Receivers (Loss of all Receivers)
- Aerials (Loss of all Aerials)
- Data Lines (Loss of data lines)

f) Propagation;

- Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.

g) Staffing

- No Staff
- Illness (Seasonal Influenza)
- Weather
- Industrial Relations issues

h) Evacuation of Cairo ACC

- Fire
- Bomb threat

Effect on flights

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

ATFM measures may be imposed as necessary.

2.5.2 Loss of ability to provide control services

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

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

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

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

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

2.6 FLIGHT CREW AND OPERATOR PROCEDURES

2.6.1 For flights within the Cairo FIR – General

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

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

2.6.2 For flights within the Cairo FIR – Westbound

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

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

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

UNIT	TEL. No	FAX No	EMAIL	AFTN
Athens ACC				
Nicosia ACC				
Tel Aviv 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	
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.

2.6.3 For flights within the Cairo FIR – Eastbound

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

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

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

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

Not in Receipt of an ATC Clearance

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

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

In receipt of an acknowledged ATC Clearance outside Cairo *FIR*

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

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

2.7 CAIRO FIR – CONTINGENCY ROUTE STRUCTURE

2.7.1 For activation within Cairo FIR

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

2.7.2 For activation within adjacent FIR

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

CONTINGENCY ROUTE STRUCTURE FOR CAIRO FIR

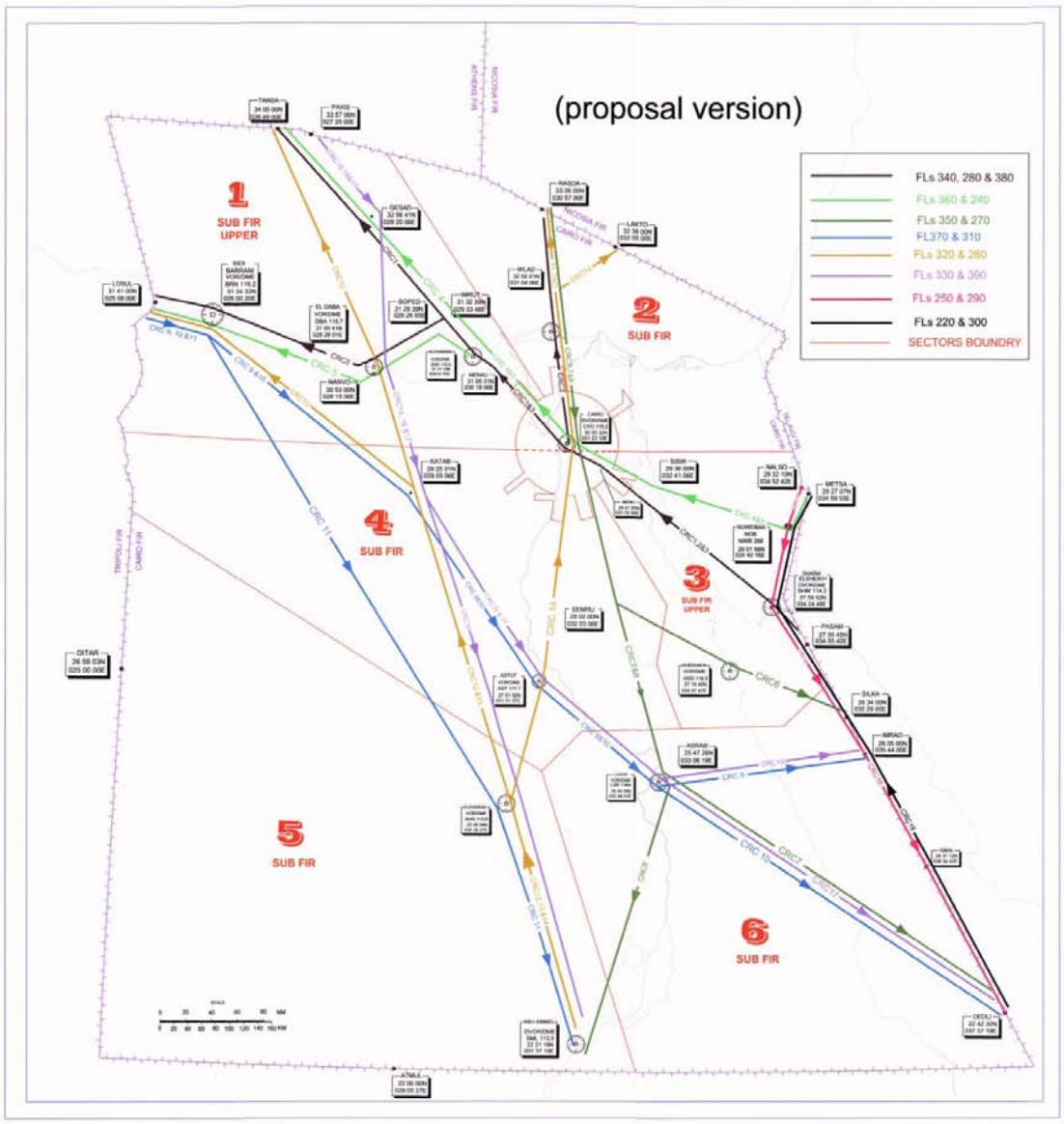
CONTINGENCY ROUTES IN CAIRO (CRC)	ATS ROUTES	FL ASSIGNMENT

CRC1	PASAM-A411-CVO-IMRUT-UL617-TANSA	FLs 380,340 and 280
CRC 2	PASAM-A411-CVO-A16-RASDA	FLs 380,340 and 280
CRC 3	PASAM-A411-CVO-A727-OTIKO- W725-BRN-A411-LOSUL	FLs 380,340 and 280
CRC 4	METSA-W733-NWB-A791-MENLI-A411-CVO-A727-IMRUT- L617/UL617-TANSA	FLs 360 and 240
CRC 5	METSA-W733-NWB-A791-MENLI-A411-CVO-A1-BOPED- W725-BRN- A411-LOSUL	FLs 360 and 240
CRC 6	RASDA-A16-CVO-A727-SEMRU-B418-SILKA	FLs 350 and 270
CRC 7	RASDA-A16-CVO-A727-LXR-R775-DEDLI	FLs 350 and 270
CRC 8	RASDA-A16-CVO-A727-SML	FLs 350 and 270
CRC 9	LOSUL-A411-BRN-UP751-LXR-A145-IMRAD	FLs 370 and 310
CRC 10	LOSUL-A411-BRN-UP751-LXR-R775-DEDLI	FLs 370 and 310
CRC 11	LOSUL-A411-BRN-A145-KHG-B12-SML	FLs 370 and 310
CRC 12	SML-B12-DBA-UL613-TANSA	FLs 320 and 260
CRC 13	SML-B12-KATAB-UP751-BRN-A411-LOSUL	FLs 320 and 260
CRC14	SML-B12-KHG-W8-CVO-A16-MILAD-A16-RASDA OR N307-LAKTO	FLs 320 and 260
CRC15	PAXIS-UL607-GESAD-L551-DBA-B12-KATAB-UP751-LXR-A145-IMRAD	FLs 330 and 390
CRC16	PAXIS-UL607-GESAD-L551-DBA-B12-SML	FLs 330 and 390
CRC17	PAXIS-UL607-GESAD-L551-DBA-B12-KATAB-UP751-LXR-R775-DEDLI	FLs 330 and 390
CRC18	NALSO-NWB-SHM-IMRAD-GIBAL-DEDLI	FLs 290 and 250
CRC19	DEDLI-GIBAL-IMRAD-SHM-NWB-NALSO	FLs 300 and 220

This CRCs table does not include any eastbound routes to AMMAN FIR.

Appendix

CONTINGENCY ROUTES WITHIN CAIRO FIR



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

APPENDIX

CONTINGENCY FREQUENCIES FOR CONTROL AND/OR FLIGHT MONITORING SERVICES

CONTINGENCY ROUTES IN CAIRO (CRC)	ATS ROUTES	COM
CRC1	PASAM-A411-CVO-IMRUT-UL617-TANSA	126.6Mhz/CVO/127.7Mhz

CRC 2	PASAM-A411-CVO-A16-RASDA	126.6Mhz/CVO/124.7Mhz
CRC 3	PASAM-A411-CVO-A727-OTIKO- W725-BRN-A411-LOSUL	126.6Mhz/CVO/127.7Mhz
CRC 4	METSA-W733-NWB-A791-MENLI-A411-CVO-A727-IMRUT- L617/UL617-TANSA	126.6Mhz/CVO/127.7Mhz
CRC 5	METSA-W733-NWB-A791-MENLI-A411-CVO-A1-BOPED- W725-BRN- A411-LOSUL	126.6Mhz/CVO/127.7Mhz
CRC 6	RASDA-A16-CVO-A727-SEMRU-B418-SILKA	124.7Mhz/CVO/132.2Mhz/ SEMRU/126.6Mhz
CRC 7	RASDA-A16-CVO-A727-LXR-R775-DEDLI	124.7Mhz/CVO/132.2Mhz/ SEMRU/129.4Mhz
CRC 8	RASDA-A16-CVO-A727-SML	124.7Mhz/CVO/132.2Mhz/ SEMRU/129.4Mhz
CRC 9	LOSUL-A411-BRN-UP751-LXR-A145-IMRAD	127.7Mhz/KATAB/132.2Mhz/ AST/129.4Mhz
CRC 10	LOSUL-A411-BRN-UP751-LXR-R775-DEDLI	127.7Mhz/KATAB/132.2Mhz/ AST/129.4Mhz
CRC 11	LOSUL-A411-BRN-A145-KHG-B12-SML	127.7Mhz/DANAD/132.2Mhz/ ABM AST/129.4Mhz
CRC 12	SML-B12-DBA-UL613-TANSA	129.4Mhz/ABM AST/ 132.2Mhz/KATAB/127.7Mhz
CRC 13	SML-B12-KATAB-UP751-BRN-A411-LOSUL	129.4Mhz/ABM AST/ 132.2Mhz/KATAB/127.7Mhz
CRC14	SML-B12-KHG-W8-CVO-A16-MILAD-A16-RASDA OR N307-LAKTO	129.4Mhz/AST/132.2mhz/CVO/ 124.7Mhz
CRC15	PAXIS-UL607-GESAD-L551-DBA-B12-KATAB-UP751-LXR-A145-IMRAD	127.7Mhz/KATAB/132.2Mhz/ AST /129.4Mhz
CRC16	PAXIS-UL607-GESAD-L551-DBA-B12-SML	127.7Mhz/KATAB/132.2Mhz/ABM AST/129.4Mhz
CRC17	PAXIS-UL607-GESAD-L551-DBA-B12-KATAB-UP751-LXR-R775-DEDLI	127.7Mhz/KATAB/132.2Mhz/ AST/129.4Mhz
CRC18	NALSO-NWB-SHM-IMRAD-GIBAL-DEDLI	126.6Mhz/SILKA/129.4Mhz
CRC19	DEDLI-GIBAL-IMRAD-SHM-NWB-NALSO	129.4Mhz/SILKA/126.6Mhz

Note; Cairo FIR served as well by HF Frequency 11300 KHz

2.8 LONG TERM CONTINGENCY ARRANGEMENTS

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

The facility will be or is established at another location but will take some time to put in place as equipment and communication links have to be brought into operation and staff relocated. The nature of the loss of the Cairo facility may influence the time required to bring the contingency facility into service, but it is expected that under most circumstances an ATC service will be available in

the Cairo FIR 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 CAIRO FIR ALL ACFT ARE ADVISED TO AVOID THE 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 5: DETAILED PROCEDURES – AMMAN FIR

5.1 FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Cairo 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. 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

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:

e) Equipment Failure;

- Transmitters (Loss of all Transmitters)
- Receivers (Loss of all Receivers)
- Aerials (Loss of all Aerials)
- Data Lines (Loss of data lines)

f) Propagation;

- Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.

g) Staffing

- No Staff
- Illness (Seasonal Influenza)
- Weather
- Industrial Relations issues

h) Evacuation of Cairo 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 Cairo 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 Cairo 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.

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 Cairo 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 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
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	
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 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.

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:

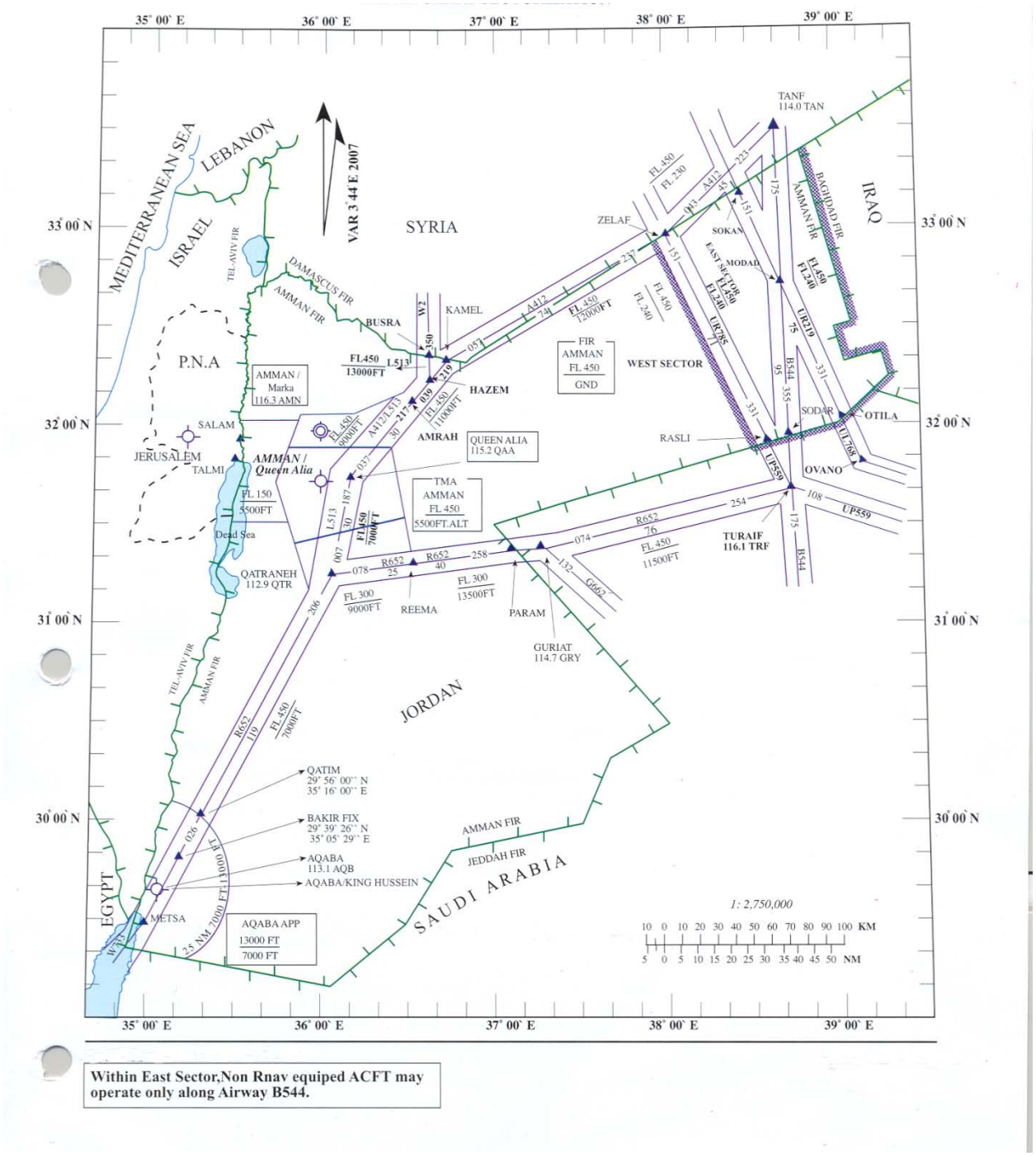
CONTINGENCY ROUTE STRUCTURE FOR AMMAN FIR

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	**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	• **Damascus FIR** • **Cairo FIR**

to follow:	A412/L513 or L513 - BUSRA and QAA or on R652 from CAIRO FIR through METSA.	
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 8: DETAILED PROCEDURES – MUSCAT FIR

8.1 FIR FOR WHICH THE CONTINGENCY PLAN APPLIES

Muscat FIR

8.2 FIRs WITH SUPPORTING PROCEDURES

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

8.4.2 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. 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

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.

8.5 NO SERVICE – PROCEDURES

8.5.1 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:

i) Equipment Failure;

- Transmitters (Loss of all Transmitters)
- Receivers (Loss of all Receivers)
- Aerials (Loss of all Aerials)
- Data Lines (Loss of data lines)

j) Propagation;

- Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.

k) Staffing

- No Staff
- Illness (Seasonal Influenza)
- Weather
- Industrial Relations issues

l) 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.

8.5.2 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.

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.

8.6 FLIGHT CREW AND OPERATOR PROCEDURES

8.6.1 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.

8.6.2 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	0091 22	WSOMUM@AAI.AERO	VABFZQZX

	26828088	26828066		VABFZQZA
Sana'a ACC	00967 1345402/3	00967 1344047	atccns@gmail.com	OYSNZQZX OYSNZQZA
Bahrain ACC	00973 1732 1080/1081	00973 1732 1029	bahatc@caa.gov.bh	OBBBZQZX OBBBZQZA
UAE ACC	00971 2 4054 501	00971 2 4054 316	hkaram@gcaa.ae	OMAEZQZX OMAEYAYH
Jeddah ACC				

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

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

8.6.3 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.

8.6.4 **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.

8.7 MUSCAT FIR – CONTINGENCY ROUTE STRUCTURE

8.7.1 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

8.7.2 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 WAYPOINT	DIRECTION	FL ASSIGNMENT	NEXT ACC	COM
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	

8.8 LONG TERM CONTINGENCY ARRANGEMENTS

In the event that Egypt 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 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. 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

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:

i) Equipment Failure;

- Transmitters (Loss of all Transmitters)
- Receivers (Loss of all Receivers)
- Aerials (Loss of all Aerials)
- Data Lines (Loss of data lines)

j) Propagation;

- Radio Propagation resulting in total fade-out which can be caused by many factors including Solar Flares and Geomagnetic Storms.

k) Staffing

- No Staff
- Illness (Seasonal Influenza)
- Weather
- Industrial Relations issues

l) Evacuation of Cairo 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.

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	
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	Even F400 ,F340 ,F280 Odd F290,F310	CAIRO	HF, VHF
CRK	UB736	E/W Two ways	Even F340 ,F260 Odd F390,F410	NIROBI	HF, VHF
CRK	UB527	N/S Two ways	Odd F370 Even F380	NIROBI	HF, VHF
CRK	UT267	E/W One way	Even F400,F340,F280	CAIRO	HF, VHF
CRK	UT124	E/W One way	Even F320, F360	NIROBI	HF, VHF

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

APPENDIX

CONTINGENCY FREQUENCIES FOR CONTROL AND/OR FLIGHT MONITORING SERVICES

CONTINGENCY ROUTE KHARTOUM (CRK)	**ATS ROUTE**	**ACC**	**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

APPENDIX C

CONTINGENCY ROUTING SCHEME FOR ASIA/MIDDLE EAST/EUROPE – 2003 (CRAME-03)

Version II

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).

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

NAMES	**PHONE (WORK)**	**PHONE (HOME)**	**MOBILE PHONE**	**FAX**	**E-MAIL**	**OTHER CONTACT DETAILS**
ARMENIA						
Arthur Gasparyan (Focal Point – H24)	3741 59 33 04		3741 47 71 90	3749 59 33 04	arthur.gasparyan@armats.am	UGEEADXX
Avag Poghosyan (Alternate – H24)	3741 59 30 76		3749 40 15 82	3741 28 70 02		UGEEADXX
AZERBAIJAN						
Bala Mirzoev	99412 971 604 (0500 – 1400)		99450 326 2863 (H24)	99412 972 733 (0500 – 1400)	**Direct** address: balamirzoev@azans.az **Official** address: office@azans.az atm@azans.az	UBBBADXX
ATC Supervisor (on duty)	99412 971 673					
BAHRAIN						
Mr. Mohamed Ahmed Juman	973 321 031/80 INMARSAT: 873 763 688 478 (H24)			973 321 029 INMARSAT: 873 763 688 479	cmcan@bahrain.gov.bh	Air Navigation Crisis Management Centre Operational on H24
BANGLADESH						
Chairman CAA of Bangladesh	880-2-8911122			880-2-8913322	caab@nsl.bangla.net	
CHINA						
Mr. Liu Zhonghua	86-10-6401 2907			86-10-6513 5983		AFTN: ZBBBZGZX
Mr. Zhang Tongguo	86-10-6401 2907					
EGYPT						
Mr. Mohamed Alkady	202 265 7849	202 639 1792	202 417 8460	202 268 0627	elkady@nansceg.org mielkady@hotmail.com	
Mr. Aly Hussien Aly	202 637 3950	202 417 8460	201 01609 760	202 268 0627		
GEORGIA						
Vladimir Gogashvili	995 32 947 326 (0500-1400 UTC)		995 77 411 125	995 32 947326 (0500-1400UTC)	atc@airnav.com.ge atc@caucasus.net	UGGGADXX

NAMES	**PHONE (WORK)**	**PHONE (HOME)**	**MOBILE PHONE**	**FAX**	**E-MAIL**	**OTHER CONTACT DETAILS**
HONG KONG, CHINA						
Mr. Norman Lo Deputy Director General Civil Aviation	(852) 2867 4202	(852) 2504 4299	(852) 9038 0695	(852) 2910-1177 (VHHH ATCC-H24)	nsmlo@cad.gov.hk	
Mr. John Lau	(852) 2910-6402	(852) 2341-1928	(852) 9022-8422	(852) 2910-1177	jtclau@cad.gov.hk	
INDIA						
H.S. Chawla	91-11-2463 1684		981-0016-825	91-11-2461 1078	edatmchqnad@airportsindia.org.in	
DGCA India	91-11-2462 7830	91-11-2467 1272		91-11-2462 9221		
AAI				91-11-2463 2990		
INDONESIA						
DGAC – Indonesia				62-21-424 6703		
Director of Aviation Safety				62-21-350 7569		
IRAN						
Mr. A. Golmohammadi DG of Operations	982 1452 5493					*Note*.- During New Year Holidays in Iran (20 March – 5 April) Contact the Dep. Of CAO in Operation or in the Dept. of ATS
Mr. Momenirokh Deputy of CAO in Operation		21 440 0753	98 913 227 4798	98 214 527 194		
Mr. E. Shoushtari Deputy of ATS Dept.		21 601 4235	98 911 286 100			
Mr. Khodakarami Deputy of ATS Dept.		21 408 7386	98 913 284 3796			
JORDAN						
Mr. Majed Yousef Aqeel Director, ATM	9626 489 7729		079 502 0100	9626 4891 266	majedaqeel@yahoo.com	

NAMES	**PHONE (WORK)**	**PHONE (HOME)**	**MOBILE PHONE**	**FAX**	**E-MAIL**	**OTHER CONTACT DETAILS**
KAZAKHSTAN						
Amantai B. Zholdybayev	7 3172 328 688		7 300 533 6583	7 3172 324 225	tokbakbayev@mtc.gov.kz	
KYRGYZSTAN						
Georgy Sitnikov (Focal Point – Day only)	996 312 542 142			996 312 542 140 996 312 542 141	Parc2@mail.elcat.kg	UAFMYAYX
Civil Sector ATFM (H24)	996 312 603 552			996 312 603 573 996 312 313 573		UAFMZDZX
KUWAIT						
Eng. Fozan M. Al-Fozan	965 476 0421			965 431 9232	cvnedd@qualitynet.net	
LEBANON						
Mr. Khaled Chamieh Chief, Air Navigation Department	9611 628 178		9613 837 833	9611 629 023	chamiehk@beirutairport.gov.lb	
MALAYSIA						
Mr. Maniam Appadurai Deputy Director ATS (Operations)	007-603-7846 5233 007-603-7846 9428	603-7980 0870		603-7847 2997	accwmfc@tm.net.my	
MALDIVES						
Mr. Mohamed Solih Chief Air Traffic Services	960-313308		960-774154	960-323039	msolih@airports.com.mv	
MYANMAR						
DCA Myanmar				95-1-665124	dca.myanmar@mptmail.net.mm	
U. Yoa Shu	951-663-838	951-642-223		951-665-124	dca.myanmar@mptmail.net.mm	
NEPAL						
				977-1-262516		
OMAN						
Mr. Abdullah Nasser Al-Harthy	968 519 201		968 947 6806	968 519 939/ 519 930	Abdullah_Nasser@dgcam.com.om	
Mr. Saud Al-Adhoobi	968 519 305		968 932 1664	968 519 939/ 519 930	saud@dgcam.com.om	

NAMES	**PHONE (WORK)**	**PHONE (HOME)**	**MOBILE PHONE**	**FAX**	**E-MAIL**	**OTHER CONTACT DETAILS**
PAKISTAN						
Mr. Zahid H. Khan	922 1924 8134				gmats@cyber.net.pk	
PHILIPPINES						
Mr. Anacleto V. Venturina Director, Air Traffic Service	63-2-8320906	63-2-8729416		63-2-7592742	avv@ats.ato.gov.ph	
Mr. Salvador G. Rafael Chief, Air Traffic Control Division	63-2-7592742	63-46-4171281		63-2-7592742	srafael@atmd.ats.ato.gov.ph	
RUSSIAN FEDERATION						
Yury Meleshko (Focal Point – CAA)	7 095 155 5931		7 095 961 5680 (H24)	7 095 151 3335	Scherbakov_lk@scaa.civilavia.ru	
Watch Supervisors (H24)	7 095 155 5693 7 095 155 9659			7 095 155 5217		UUUVYVYX
Senior Controllers (H24)	7 095 155 8572 7 095 155 5515					UUUVZDZX
SAUDI ARABIA						
Mr. Mohammad Al Alawi	9662 640 1005		9665 562 1582	9662 640 1005	alalawi_m@yahoo.com	
SINGAPORE						
Mr. Mervyn Fernando	65-6541 2420	65-6783 8544	65-9616 4300	65-6545 6224	mervyn_fernando@caas.gov.sg	
Mr. Kuah Kong Beng	65-6541 2457			65-6545 6516	Kuah_kong_beng@caas.gov.sg	
SRI LANKA						
Ranjith M. Silva	94-1-251621	94-1-862-454	94-777-71 2770	94-1-253187	rmsaasl@slt.lk	
SYRIA						
Mr. Mafood Director General of Civil Aviation	963 1133 33815		093 222 553		dgca@net.sy	
TAJIKISTAN						
Vladimir Prijukov (0300 – 1200 UTC)	992 377 221 2414 992 377 223 1130 992 377 229 8432			992 377 221 2414	mtdh@tajik.net	UTDAYAYZ (SITA: DYUG7J**)**

NAMES	**PHONE (WORK)**	**PHONE (HOME)**	**MOBILE PHONE**	**FAX**	**E-MAIL**	**OTHER CONTACT DETAILS**
THAILAND						
Mr. Vanchai Srimongkol DOA Thailand	66-2-286 2909			66-2-286 2909	svanchai@aviation.go.th	AFTN: VTBAZGZX
Mr. Kumtorn Sirikorn Aerothai - Focal Point	66-2-285 9905 66-2-287 5050		661-846 2623	66-2-285 9995	kumtorn@aerothai.or.th	AFTN: VTBBYFYX SITA: BKKTOYF
Mr. Somkiat Prakitsuvan Thai Airways	66-2-535 2449			66-2-504 3814	somkiat.p@thaiaiways.co.th	SITA: BKKOPTG
Mr. Prasert Pathumbal Thai Airways	66 2 996 9101			66 2 504 3803	prasert.p@thaiairways.co.th	SITA: BKKOWTG
TURKEY						
URKMENISTAN						
A.A. Amanov (Working Hours)	993 1235 5534			993 1235 4402		
Air Traffic Controller on duty (ACC) (H24)	993 1233 1352			993 1233 1352		SITA: ASBGCT5
UNITED ARAB EMIRATES (UAE)						
Mr. Riis Johansen Director, Air Navigation Services	9712 405 4216			9712 405 4316	atmuae@emirates.net.ae	
UZBEKISTAN						
Yuri Savkov Chief ATFMU (H24)	998 712 6769 86			998 7121 335813	uzaeronav@airways.uz	UTTTZDZX
VIET NAM						
Mr. Nguyen The Hung, Chief, Air Navigation Division	84 4 8274191	84 4 8525312		84 4 8274194	iad_caav@hn.vnn.vn	AFTN:VVVVYAYX

NAMES	**PHONE (WORK)**	**PHONE (HOME)**	**MOBILE PHONE**	**FAX**	**E-MAIL**	**OTHER CONTACT DETAILS**
YEMEN						
Mr. Saleh A. Al-Theeb	9671 345 402	9671 344 048	737 15516	9671 345 403	San1ans@hotmail.com	
IATA – APAC						
David Behrens	65 6239 7161	65 6738 3305	65 9694 7401	65-6536 6267	behrensd@iata.org	
IATA – EUR						
Cees Gresnigt (H24)	32 2 626 1800		31 651 5353 68	32 2 648 5135	gresnigtc@iata.org dicapuas@iata.org	None
Razvan Bucuroiu (H24)	32 2 6261800		32 478 630395	32 2 648 5135	bucuroiur@iata.org dicapuas@iata.org	None
IATA – MID						
Faqir Jehad	962 6 569 8728	962 6 5811 994	962 79 596 6559	962 6 560 4548	Faqirj@iata.org	
IATA – ESAF						
Mr. Trevor Fox (IATA RD)	254 2 710-100 254 2 723-999	254 2 882-946		254 2 723-978	foxt@iata.org	AFTN: HKNAIATX
IATA – Nairobi						
Mr. Meissa Ndiaye (IATA)	254-2-723999 254-2-714751	254-2-573892		254-2-723978 254-2-727391	ndiayem@iata.org	
ICAO Bangkok						
John E. Richardson (RO/ATM) Focal Point	662-537 8189 ext. 152	662-722 4055 ext. 6253	661-824 2467	662 537 8199	jrichardson@bangkok.icao.int jricho282@yahoo.com	
David Moores (RO/ATM)	662-537 8189 ext. 151	662-653 1783 ext 2803	661 938 9710		dmoores@bangkok.icao.int dsmoores@backpacker.com	
ICAO Cairo						
D. Ramdoyal (RO/ATM)	202 267 4845 ext 104	202 516 3825	201 018 20339	202 267 4843	dramdoyal@cairo.icao.int ramdoyal@hotmail.com	
M.R. Khonji (DRD)	202 267 4841 ext. 116/115	202 415 2073	201 232 14946	202 267 4843	mkhonji@cairo.icao.int mkhonji@hotmail.com	
ICAO Nairobi (ESAF)						
Lot Mollel (ICAORD)	254 2 622394	254 2 521208		254 2 623028	lot.mollel@icao.unon.org	
Apolo Kharuga Team Co-ordinator	254 2 622372 254 2 622374	254 2 882264		254 2 226706	apollo.kharuga@icao.unon.org	

NAMES	**PHONE (WORK)**	**PHONE (HOME)**	**MOBILE PHONE**	**FAX**	**E-MAIL**	**OTHER CONTACT DETAILS**
Marcel Munyakazi (RO/ATM)	254 2 622373	254 2 574149		254 2 520135	marcel.munyakazi@icao.unon.org	
ICAO Paris						
Gunnar Emausson	33 1 46 41 85 92	33 1 47 57 34 33	33 6 22 11 40 58	33 1 46 41 85 00	gemausson@paris.icao.int	
Jacques Vanier	33 1 46 41 85 24	33 1 34 46 01 14		33 1 46 41 85 00	jvanier@paris.icao.int jvanier@wanadoo.fr	
Duty Contingency Contact Officer	33 1 4641 8585		33 6 70 94 56 27	33 1 46 41 85 00	Eurcontingency@paris.icao.int	LFPSYAYU
ICAO Headquarters – Montreal						
Vince Galotti (C/ATM)	1 514 954-6711	1 514 281-0731	1 514 951-0283	1-514-954 8197	vgalotti@icao.int	
Chris Dalton (TO/ATM)	1 514 954-8219 ext. 6710	1 514 485-3635		1-514-954 8197	cdalton@icao.int	
Gustavo De Leon (TO/ATM)	1 514 954-8219 ext. 6199	1 514 482-7182	1 514 883-4847	1-514-954 8197	gdeleon@icao.int g_deleon_p@hotmail.com	
Aleksandar Pavlovic (C/AIS/MAP)	1-514 954 8162	1-514 932 7632		1-514-954 6077	apavlovic@icao.int	
Hindupur Sudarshan (TO/RAO)	1-514 954 8219 ext 8190	1-514 486 4041		1-514-954 6077	hsudarshan@icao.int	
EUROCONTROL						
John Byrom	32 2 729 98 00		32 4 75 47 06 85	32 2 729 9028	john.byrom@eurocontrol.int	
Guy Guizien	32 2 729 97 62		32 4 75 26 17 93	32 2 729 9028	guy.guizien@eurocontrol.int	

— — — — — — — — — —

Appendix B
Contingency Routes

CONTINGENCY SCHEME ROUTE DETAILS

1. INTRODUCTION

1.1 The following scenarios provide aircraft operators with alternative routings to their normal routes that may be affected by airspace closures.

ROUTES — DESCRIPTION

Scenario 1 (Yellow routes): **Flights planning to operate on existing routes to and from Gulf State aerodromes that are open to civil flights, and overflights are permitted over portions of the Arabian Peninsular**

Scenario 2 (Pink routes): **Flights planning to avoid the Gulf area on existing routes through Pakistan and Iran via the Arabian Sea**

Scenario 3 (Blue routes): **Flights planned to avoid the Gulf area by operating through Pakistan, Iran and Turkey**

3.1	TIGER/G452	TIGER–G452–RK–ZAHEDAN
3.2	P628/ZAHEDAN	P628–ASOPO–A791–BHOPAL–'PRA' VOR–A791/R462–CHOR–B210–NAWABSHAH–PG–G208–ZAHEDAN
3.3	AAE/ZAHEDAN	AAE–N895W–SASRO–G208(W)–CHOR–KC–PARET–PG–ZAH
3.4	ZAHEDAN/AAE	ZAH–G208–PG–P318 (S)–DOSTI–M638–KC–G208(E)–AAE
3.5	KC/JI	KC–A791(W)–PARET–JI
3.6	JI/KC	JI–A791(E)–LATEN–KC

Scenario 4 (Orange routes): Flights planned to avoid the Gulf area, Iran and Turkey by operating through India, Pakistan and Afghanistan

4.1	G500	DELHI–A466–LAHORE–A466–DERA ISMAIL KHAN (DI)–P500–PADDY–FIRUZ–P500/G500 *Note:— Contingency levels FL310-FL390 within Kabul FIR.*
4.2	M881	DELHI–A466–LAHORE–A466–DERA ISMAIL KHAN (DI)–P500–BANNU (BN)–M881–GARRI *Note 1:— Contingency levels FL280-FL290 within Kabul FIR.* *Note 2:— M881 conflicts laterally with ATS route P500.*
4.3	A466	DELHIA–466–LAHORE–A466–DI–AMDAR–TERMEZ *Note:— Contingency flight levels FL290–FL390.*
4.4	N644	DERA ISMAIL KHAN (DI)–N644–PAVLO–LEMOD *Note:— Contingency levels FL310-FL390.* *RNP 10 approved aircraft only*
4.5	L750	TIGER–G202N–ZHOB–L750–ROSIE–RANAH *Note:— Contingency levels FL310-FL390* *RNP 10 approved aircraft only*
4.6	B466/V390	NAWABSHAR–B466–KANDAHAR–V390–CHARN–G792–MASHHAD–GIRUN or MASHHAD–G775–ASHGABAT *Note:— Contingency levels FL310-FL350.* *RNP 10 approved aircraft only*
4.7	P628/B466/ V390	P628–ASOPO–A791–BHOPAL–'PRA' VOR–A791W–CHOR–B210–NAWABSHARB–B466–KANDAHAR–V390–CHARN–G792–MASHHAD–GIRUN or MASHHAD–G775–ASHGABAT *Note 1:— Contingency levels FL310-FL350 within Kabul FIR.* *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)–A451–BOLUR (1700.7N 063 07.4E)–ASPUX (1744.1N 06000.1E)–UN315–Haima (HAI)–LOTOS (N22 00.0 E050 39.2) *Note 1:— CRAME 3A is identical to CRAME 2C.* *Note 2:— Traffic may route beyond LOTOS (N22:00.0 E050:39.2) via:* i) LOTOS–UL300–Luxor (LXR)–A727–Cairo (CAI). *Westbound routing only*; ii) LOTOS–UL300–Yenbo (YEN)–A411–WEJ–A411–Sharm el Sheikh (SHM)–A411–Cairo (CAI). *Westbound routing only*; iii) Cairo (CAI)–A727–SEMRU (N28:02.0 E032:03.1)–B418–WEJH (WEJ)–UL573–Dafinah (DFN)–UL300–LOTOS (N22 12.7 E045 48.0). *Eastbound routing only*; iv) LOTOS–UL300–KANOP (N22 12.7 E045 48.0)–Dafinah (DFN)–G782–Jeddah (JDW). *Westbound routing only*; v) Jeddah (JDW)–B417–TALMA (N2329.6 E04052.0)–UL300–LOTOS. *Eastbound routing only*; and vi) LOTOS–Y100–KFA for flights to/from Bahrain, Dammam and Doha airports (consult local NOTAMs).

CRAME 3B	Katunayake (KAT)–G462–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–UL300–Luxor (LXR)–A727–Cairo (CAI). *Westbound routing only;* ii) LOTOS–UL300–Yenbo (YEN)–A411–WEJ–A411–Sharm el Sheikh (SHM)–A411–Cairo (CAI). *Westbound routing only;* iii) Cairo (CAI)–A727–SEMRU (N28:02.0 E032:03.1)–B418–WEJH (WEJ)–UL573–Dafinah (DFN) –UL300–LOTOS (N22 12.7 E045 48.0). *Eastbound routing only;* iv) LOTOS–UL300–KANOP (N22 12.7 E045 48.0)–UL300–Dafinah (DFN)–G782–Jeddah (JDW). *Westbound routing only;* v) Jeddah (JDW)–B417–TALMA (N2329.6 E04052.0)–UL300–LOTOS. *Eastbound routing only; and*

	vi) LOTOS–Y100–KFA *for flights to/from Doha (consult local NOTAMs).*

CRAME 4A	Mumbai (BBB)–A451–ODAKA (N14:40.6 E052:34.0)–B526–RIYAN (RIN)–SAA–UR777–DANAK–UB413/R776–Port Sudan then flight plan route to destination (consult local NOTAMs). *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:* - *ODAKA–A451–Aden (KRA)–B413– DANAK–B413/R776–Port Sudan then flight plan route to destination (consult local NOTAMs).*

CRAME 4 B	Katunayake (KAT)–G462–Trivandrum (TVM) –UL425–DONSA (N14:35.2 E065:11.6)–UP323– DCT–MOORI (Socotra) (approximately N12 38.47 E54 01.07)–V629F– RASEM (N14:11.5 E0050:28.6) –V629F–RIN–B526–SAA–UR777–DANAK–UB413/R776–Port Sudan then flight plan route to destination (consult local NOTAMs). Note: — *CRAME 4B assumes the Sanaa and Jeddah FIRs are open. Traffic may also route beyond RASEM (N14:11.5 E0050:28.6) as follows:* - *RASEM– A451–Aden (KRA) – B413/R776–Port Sudan then flight plan route to destination (consult local NOTAMs).*

Flights departing/arriving/overflying from/to Hong Kong, Thailand and northern India.	
CRAME 5A	Mumbai (BBB)–G450–ORLID (N11 17.1 E060 00.1)–T930–DCT–Hargeisa (HG) then flight plan route to destination *(consult local NOTAMs).*
CRAME 5B	Male (MLE)–DCT–GAGDO (N08 00.0 E048 45.0)–Hargeisa (HG) then flight plan route to destination (consult local NOTAMs). *Note:— Traffic may route beyond Hargeisa via–DCT–Dire–Dawa (DWA) –W886–Addis Ababa (ADS)–UR2–TIKAT (N12:24.3 E035:38.2) then flight plan route to destination (consult local NOTAMs).*

Scenario 6 (Green routes): Flights planned to avoid the Middle East entirely by flying north of the Himalayas or east and north of Afghanistan (Kabul FIR)

6.1	L888/A360	BANGKOK (BKK)–B346–LUANG PRABANG (LPB)–B218–SAGAG–A581–BIDRU–L888–KUQA–A460–REVKI–A360
6.2	B330/A368	BANGKOK (BKK)–B346–LUANG PRABANG (LPB)–B218–SAGAG-BIDRU–A581–KUNMING (KMG)–G212–JINTANG–B330–YABRAI–B215–FUKANG–A368–SARIN
6.3	B330	BANGKOK (BKK)–B346–LUANG PRABANG (LPB)–B218–SAGAG–BIDRU–A581–KUNMING (KMG)–G212–JINTANG–B330–YABRAI–MORIT
6.4	B215/A364	DELHI–A466–LAHORE–J121–BATAL–J131–GILGIT–G325–PURPA–B215–SACHE–A364–KURUM–R/UR356
6.5	B215/A360	DELHI–A466–LAHORE–J121–BATAL–J131–GILGIT–G325–PURPA–B215–KUQA–A460–REVKI–A360
6.6	B215/A368	DELHI–A466–LAHORE–J121–BATAL–J131–GILGIT–G325–PURPA–B215–FUKANG–A368-SARIN
6.7	B215/B206	DELHI–A466–LAHORE–J121–BATAL–J131–GILGIT–G325–PURPA–B215–FUKANG–B206–ALTAY

— — — — — — — —

TRAFFIC INFORMATION BROADCASTS BY AIRCRAFT (TIBA) AND RELATED OPERATING PROCEDURES

(See Annex 11, Chapter 4, 4.2.2, Note 2)

1. Introduction and applicability of broadcasts

1.1 Traffic information broadcasts by aircraft are intended to permit reports and relevant supplementary information of an advisory nature to be transmitted by pilots on a designated VHF radiotelephone (RTF) frequency for the information of pilots of other aircraft in the vicinity.

1.2 TIBAs should be introduced only when necessary and as a temporary measure.

1.3 The broadcast procedures should be applied in designated airspace where:

a) there is a need to supplement collision hazard information provided by air traffic services outside controlled airspace; or

b) there is a temporary disruption of normal air traffic services.

1.4 Such airspaces should be identified by the States responsible for provision of air traffic services within these airspaces, if necessary with the assistance of the appropriate ICAO Regional Office(s), and duly promulgated in aero-nautical information publications or NOTAM, together with the VHF RTF frequency, the message formats and the procedures to be used. Where, in the case of 1.3 a), more than one State is involved, the airspace should be designated on the basis of regional air navigation agreements and promulgated in Doc 7030.

1.5 When establishing a designated airspace, dates for the review of its applicability at intervals not exceeding 12 months should be agreed by the appropriate ATS authority(ies).

2. Details of broadcasts

2.1 VHF RTF frequency to be used

2.1.1 The VHF RTF frequency to be used should be determined and promulgated on a regional basis. However, in the case of temporary disruption occurring in controlled airspace, the States responsible may promulgate, as the VHF RTF frequency to be used within the limits of that airspace, a frequency used normally for the provision of air traffic control service within that airspace. (For the purpose of this contingency scheme, broadcasts shall be made on 128.95 MHz).

2.1.2 Where VHF is used for air-ground communications with ATS and an aircraft has only two serviceable VHF sets, one should be tuned to the appropriate ATS frequency and the other to the TIBA frequency.

2.2 **Listening watch**

A listening watch should be maintained on the TIBA frequency 10 minutes before entering the designated airspace until leaving this airspace. For an aircraft taking off from an aerodrome located within the lateral limits of the designated airspace listening watch should start as soon as appropriate after take-off and be maintained until leaving the airspace.

2.3 **Time of broadcasts**

2.3.1 A broadcast should be made:

a) 10 minutes before entering the designated airspace or, for a pilot taking off from an aerodrome located within the lateral limits of the designated airspace, as soon as appropriate after take-off;

b) 10 minutes prior to crossing a reporting point;

c) 10 minutes prior to crossing or joining an ATS route;

d) at 20-minute intervals between distant reporting points;

e) 2 to 5 minutes, where possible, before a change in flight level;

f) at the time of a change in flight level; and

g) at any other time considered necessary by the pilot.

2.4 **Forms of broadcast**

2.4.1 The broadcasts other than those indicating changes in flight level, i.e. the broadcasts referred to in 2.3 a), b), c), d) and g), should be in the following form:

ALL STATIONS (necessary to identify a traffic information broadcast)

(call sign)

FLIGHT LEVEL (number) (or CLIMBING* TO FLIGHT LEVEL (number))

(direction)

(ATS route) (or DIRECT FROM (position) TO (position))

POSITION (position**) AT (time)

ESTIMATING (next reporting point, or the point of crossing or joining a designated ATS route) AT (time)

(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.

— — — — — — — — — —

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	KSS (Chart department)	IBAA	Jeppesen
IAOPA	FAA	IACA	NATO

EXAMPLE OF A BROADCAST

a) "ALL STATIONS" *given only once to attract attention*;

b) "THIS IS AZ....." *(callsign)*;

c) "FL.....";

d) "NORTHEASTBOUND LAGOS-ROME VIA UA400";

e) "POSITION.....AT.....(UTC)";

f) "ESTIMATING POSITION.....AT.....(UTC)";

g) "AZ...." *(callsign)*

h) "FL....."

i) "NORTHEASTBOUND" *(direction of flight through the area).*

— — — — — — — — — —

ICAO INTERCEPTION PROCEDURES

Article 3 *bis**

a) The contracting States recognize that every State must refrain from resorting to the use of weapons against civil aircraft in flight and that, in case of interception, the lives of persons on board and the safety of aircraft must not be endangered. This provision shall not be interpreted as modifying in any way the rights and obligations of States set forth in the Charter of the United Nations.

(Extract from ICAO Annex 2 — *Rules of the Air***)**

3.8 Interception

Note.— The word "interception" in this context does not include intercept and escort service provided, on request, to an aircraft in distress, in accordance with Volumes II and III of the International Aeronautical and Maritime Search and Rescue Manual *(Doc 9731).*

3.8.1 Interception of civil aircraft shall be governed by appropriate regulations and administrative directives issued by Contracting States in compliance with the Convention on International Civil Aviation, and in particular Article 3(d) under which Contracting States undertake, when issuing regulations for their State aircraft, to have due regard for the safety of navigation of civil aircraft. Accordingly, in drafting appropriate regulations and administrative directives due regard shall be had to the provisions of Appendix 1, Section 2 and Appendix 2, Section 1.

Note.— Recognizing that it is essential for the safety of flight that any visual signals employed in the event of an interception which should be undertaken only as a last resort be correctly employed and understood by civil and military aircraft throughout the world, the Council of the International Civil Aviation Organization, when adopting the visual signals in Appendix 1 to this Annex, urged Contracting States to ensure that they be strictly adhered to by their State aircraft. As interceptions of civil aircraft are, in all cases, potentially hazardous, the Council has also formulated special recommendations which Contracting States are urged to apply in a uniform manner. These special recommendations are contained in Attachment A.

3.8.2 The pilot-in-command of a civil aircraft, when intercepted, shall comply with the Standards in Appendix 2, Sections 2 and 3, interpreting and responding to visual signals as specified in Appendix 1, Section 2.

Note.— See also 2.1.1 and 3.4.

* On 10 May 1984 the Assembly amended the Convention by adopting the Protocol introducing Article 3 ***bis*****. Under Article 94** ***a)*** **of the Convention, the amendment came into force on 1 October 1998 in respect of States which have ratified it.**

INTERCEPTION OF CIVIL AIRCRAFT

(Appendix 2 of ICAO Annex 2 — *Rules of the Air***)**

(Note.— See Chapter 3, 3.8 of the Annex)

1. Principles to be observed by States

1.1 To achieve the uniformity in regulations which is necessary for the safety of navigation of civil aircraft due regard shall be had by Contracting States to the following principles when developing regulations and administrative directives:

a) interception of civil aircraft will be undertaken only as a last resort;

b) if undertaken, an interception will be limited to determining the identity of the aircraft, unless it is necessary to return the aircraft to its planned track, direct it beyond the boundaries of national airspace, guide it away from a prohibited, restricted or danger area or instruct it to effect a landing at a designated aerodrome;

c) practice interception of civil aircraft will not be undertaken;

d) navigational guidance and related information will be given to an intercepted aircraft by radiotelephony, whenever radio contact can be established; and

e) in the case where an intercepted civil aircraft is required to land in the territory overflown, the aerodrome designated for the landing is to be suitable for the safe landing of the aircraft type concerned.

Note.— In the unanimous adoption by the 25th Session (Extraordinary) of the ICAO Assembly on 10 May 1984 of Article 3 bis *to the Convention on International Civil Aviation, the Contracting States have recognized that "every State must refrain from resorting to the use of weapons against civil aircraft in flight."*

1.2 Contracting States shall publish a standard method that has been established for the manoeuvring of aircraft intercepting a civil aircraft. Such method shall be designed to avoid any hazard for the intercepted aircraft.

Note.— Special recommendations regarding a method for the manoeuvring are contained in Attachment A, Section 3.

1.3 Contracting States shall ensure that provision is made for the use of secondary surveillance radar, where available, to identify civil aircraft in areas where they may be subject to interception.

2. Action by intercepted aircraft

2.1 An aircraft which is intercepted by another aircraft shall immediately:

a) follow the instructions given by the intercepting aircraft, interpreting and responding to visual signals in accordance with the specifications in Appendix 1;

b) notify, if possible, the appropriate air traffic services unit;

c) attempt to establish radio communication with the intercepting aircraft or with the appropriate intercept control unit, by making a general call on the emergency frequency 121.5 MHz, giving the identity of the intercepted aircraft and the nature of the flight; and if no contact has been established and if practicable, repeating this call on the emergency frequency 243 MHz; and

d) if equipped with SSR transponder, select Mode A, Code 7700, unless otherwise instructed by the appropriate air traffic services unit.

2.2 If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the intercepted aircraft shall request immediate clarification while continuing to comply with the visual instructions given by the intercepting aircraft.

2.3 If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by radio, the intercepted aircraft shall request immediate clarification while continuing to comply with the radio instructions given by the intercepting aircraft.

3. Radio communication during interception

If radio contact is established during interception but communication in a common language is not possible, attempts shall be made to convey instructions, acknowledgement of instructions and essential information by using the phrases and pronunciations in Table 2.1 and transmitting each phrase twice:

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".

APPENDIX D

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
ARMEINA						
Arthur Gasparyan (Focal Point – H24)	3741 59 33 04		3741 47 71 90	3749 59 33 04	arthur.gasparyan@armats.am	UGEEADXX
Avag Poghosyan (Alternate – H24)	3741 59 30 76		3749 40 15 82	3741 28 70 02		UGEEADXX
AZERBAIJAN						
Valery Z. Soultanov Azeraeronavigation	99412 971 604			99412 972 7333		AFTN: UBBBADXX SITA: BAKADJ2
BAHRAIN						
Mr. Mohamed Ahmed Juman	973 321031/80 INMARSAT: 873 763688478 (H24)			973 321029 INMARSAT: 873 763688 479	**cmcan@bahrain.gov.bh**	Air Navigation Crisis Management Centre Operational on H24
BANGLADESH						
Chairman CAA of Bangladesh	880-2-8911122			880-2-8913322	caab@nsl.bangla.net	
CHINA						
Mr. Liu Zhonghua	86-10-6401 2907			86-10-6513 5983		AFTN: ZBBBZGZX
Mr. Zhang Tongguo	86-10-6401 2907					
EGYPT						
Mr. Mohamed Alkady	2022657849	202 6391792	20 106504438	202 2680627	elkady@nansceg.org mielkady@hotmail.com	
Mr. Aly Hussien Aly	202 6373950	202 4178460	20101609760	202 2680627		
GEORGIA						
Vladimir Gogashvili	995 32 947 326 (0500-1400 UTC)		995 77 411 125	995 32 947326 (0500-1400UTC)	atc@airnav.com.ge atc@caucasus.net	UGGGADXX
HONG KONG, CHINA						
Mr. Norman Lo Deputy Director General Civil Aviation	(852) 2867 4202	(852) 2504 4299	(852) 9038 0695	(852) 2910-1177 (VHHH ATCC-H24)	nsmlo@cad.gov.hk	
Mr. John Lau	(852) 2910-6402	(852) 2341-1928	(852) 9022-8422	(852) 2910-1177	jtclau@cad.gov.hk	
INDIA						
H.S. Chawla	91-11-2463 1684		981-0016-825	91-11-2461 1078	aaiedatm@del6.vsnl.net.in	

Appendix D

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
DGCA India	91-11-2462 7830	91-11-2467 1272		91-11-2462 9221		
AAI				91-11-2463 2990		
INDONESIA						
DGAC – Indonesia				62-21-424 6703		
Director of Aviation Safety				62-21-350 7569		
IRAN						(to be updated on 19/03)
Mr. A. Golmohammadi DG of Operations	98214525493					*Note during New Year Holidays in Iran (20 March – 5 April) Contact the Dep. of CAO in Operation or the Deps. of ATS*
Mr. Momenirokh Deputy of CAO in Operation		21 4400753	98 9132274798	98214527194		
Mr. E.Shoushtari Deputy of ATS Dept.		21 6014235	98 911286100			
Mr. Khodakarami Deputy of ATS Dept.		21 4087386	98 9132843796			
JORDAN						
Mr. Majed Yousef Aqeel Director, ATM	9626 4897729		0795020100	9626 4891266	majedaqeel@yahoo.com	
KUWAIT						
Eng. Fozan M. Al-Fozan	9654760421			9654319232	cvnedd@qualitynet.net	
LEBANON						
Mr. Khaled Chamieh Chief Air Navigation Dept.	9611 628178		9613 837833	9611 629023	chamiehk@beirutairport.gov.lb	
MALAYSIA						
Mr. Maniam Appadurai Deputy Director ATS (Operations)	007-603-7846 5233 007-603-7846 9428	603-7980 0870		603-7847 2997	accwmfc@tm.net.my	

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
MALDIVES						
Mr. Mohamed Solih Chief Air Traffic Services	960-313308		960-774154	960-323039	msolih@airports.com.mv	
MYANMAR						
DCA Myanmar				95-1-665124		
OMAN						
Mr. Abdullah Nasser Al-Harthy	968519201		9689476806	968519939 /519930	Abdullah_nasser@dgcam.com.om	
Mr. Saud Al-Adhoobi	968519305		9689321664	968519939/519930	saud@dgcam.com.om	
NEPAL						
				977-1-262516		
PAKISTAN						
Mr.ZAHID H KHAN	92219248134				gmats@cyber.net.pk	
PHILIPPINES						
Mr. Anacleto V. Venturina Director, Air Traffic Service	63-2-8320906	63-2-8729416		63-2-7592742	avv@ats.ato.gov.ph	
Mr. Salvador G. Rafael Chief, Air Traffic Control Division	63-2-7592742	63-46-4171281		63-2-7592742	srafael@atmd.ats.ato.gov.ph	
RUSSIAN FEDERATION						
Yury Meleshko (Focal Point – CAA)			7 095 961 5680 (H24)	7 095 151 3335		
Watch Supervisors (H24)	7 095 155 5693 7 095 155 9659			7 095 155 5217		UUUVYVYX
Senior Controllers (H24)	7 095 155 8572 7 095 155 5515					UUUVZDZX
SAUDI ARABIA						
Mr. Mohammad Al Alawi	**96626401005**		**96655621582**	**9662 6401005**	**alalawi_m@yahoo.com**	
SINGAPORE						
Mr. Mervyn Fernando	65-6541 2420	65-6783 8544	65-9616 4300	65-6545 6224	mervyn_fernando@caas.gov.sg	
Mr. Kuah Kong Beng	65-6541 2457			65-6545 6516	Kuah_kong_beng@caas.gov.sg	

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
SRI LANKA						
Ranjith M. Silva	94-1-251621	94-1-862-454	94-777-71 2770	94-1-253187	rmsaasl@slt.lk	
SYRIA						
Mr.Hussein. Mahfoud Director General of Civil Aviation	963 113333815		093222553		dgca@net.sy	
THAILAND						
Mr. Vanchai Srimongkol DOA Thailand	66-2-286 2909			66-2-286 2909	svanchai@aviation.go.th	AFTN: VTBAZGZX
Mr. Kumtorn Sirikorn Aerothai - Focal Point	66-2-285 9905 66-2-287 5050		661-846 2623	66-2-285 9995	kumtorn@aerothai.or.th	AFTN: VTBBYFYX SITA: BKKTOYF
Mr. Somkiat Prakitsuvan Thai Airways	66-2-535 2449			66-2-504 3814	somkiat.p@thaiaiways.co.th	SITA: BKKOPTG
Mr. Prasert Pathumbal Thai Airways	66 2 996 9101			66 2 504 3803	prasert.p@thaiairways.co.th	SITA: BKKOWTG
UNITED ARAB EMIRATES (UAE)						
Mr. Riis Johansen Director, Air Navigation Services	9712 4054216			9712 4054316	atmuae@emirates.net.ae	
VIET NAM						
Mr. Nguyen The Hung, Chief, Air Navigation Division	84 4 8274191	84 4 8525312		84 4 8274194	iad_caav@hn.vnn.vn	AFTN:VVVVYAYX
YEMEN						
Mr. Saleh A. Al-Theeb	9671 345402	9671 344048	73715516	9671 345403	San1ans@hotmail.com	
IATA – APAC						
David Behrens	65 6239 7161	65 6738 3305	65 9694 7401	65-6536 6267	behrensd@iata.org	
IATA – EUR						
Cees Gresnigt (H24)	32 2 626 1800		31 651 5353 68	32 2 648 5135	gresnigtc@iata.org dicapuas@iata.org	None
Razvan Bucuroiu (H24)	32 2 6261800		32 478 630395	32 2 648 5135	bucuroiur@iata.org dicapuas@iata.org	None
IATA – MID						

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
Faqir Jehad	962 6 5698728	962 6 5811 994	962 79 5966559	962 6 5604548	Faqirj@iata.org	
IATA – ESAF						
Mr. Trevor Fox (IATA RD)	254 2 710-100 254 2 723-999	254 2 882-946		254 2 723-978	foxt@iata.org	AFTN: HKNAIATX
IATA – Nairobi						
Mr. Meissa Ndiaye (IATA)	254-2-723999 254-2-714751	254-2-573892		254-2-723978 254-2-727391	ndiayem@iata.org	
ICAO Bangkok						
John E. Richardson (RO/ATM) Focal Point	662-537 8189 ext. 152	662-722 4055 ext. 6253	661-824 2467	662 537 8199	jrichardson@bangkok.icao.int	
David Moores (RO/ATM)	662-537 8189 ext. 151	662-653 1783 ext 2803			dmoores@bangkok.icao.int dsmoores@backpacker.com	
ICAO Cairo						
D. Ramdoyal (RO/ATM)	202 267 4845 ext 104	202 516 3825	201 018 20339	202 267 4843	dramdoyal@cairo.icao.int ramdoyal@hotmail.com	
M.R. Khonji (DRD)	202 267 4841 ext. 116/115	202 415 2073	201 232 14946	202 267 4843	mkhonji@cairo.icao.int mkhonji@hotmail.com	
ICAO Nairobi (ESAF)						
Lot Mollel (ICAORD)	254 2 622394	254 2 521208		254 2 623028	lot.mollel@icao.unon.org	
Apolo Kharuga Team Co-ordinator	254 2 622372 254 2 622374	254 2 882264		254 2 226706	apollo.kharuga@icao.unon.org	
Marcel Munyakazi (RO/ATM)	254 2 622373	254 2 574149		254 2 520135	marcel.munyakazi@icao.unon.org	
ICAO Paris						
Gunnar Emausson	33 1 46 41 85 92	33 1 47 57 34 33	33 6 22 11 40 58	33 1 46 41 85 00	gemausson@paris.icao.int	
Jacques Vanier	33 1 46 41 85 24	33 1 34 46 01 14		33 1 46 41 85 00	jvanier@paris.icao.int jvanier@wanadoo.fr	
Duty Contingency Contact Officer	33 1 4641 8585		33 6 70 94 56 27	33 1 46 41 85 00	Eurcontingency@paris.icao.int	LFPSYAYU
ICAO Headquarters – Montreal						
Vince Galotti (C/ATM)	1 514 954-6711	1 514 281-0731	1 514 951-0283	1-514-954 8197	vgalotti@icao.int	
Chris Dalton (TO/ATM)	1 514 954-8219 ext. 6710	1 514 485-3635		1-514-954 8197	cdalton@icao.int	

Appendix D

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
Gustavo De Leon (TO/ATM)	1 514 954-8219 ext. 6199	1 514 482-7182	1 514 883-4847	1-514-954 8197	gdeleon@icao.int g_deleon_p@hotmail.com	
Aleksandar Pavlovic (C/AIS/MAP)	1-514 954 8162	1-514 932 7632		1-514-954 6077	apavlovic@icao.int	
Hindupur Sudarshan (TO/RAO)	1-514 954 8219 ext 8190	1-514 486 4041		1-514-954 6077	hsudarshan@icao.int	
EUROCONTROL						
John Byrom	32 2 729 98 00		32 4 75 47 06 85	32 2 729 9028	John.byrom@eurocontrol.int	
Guy Guizien	32 2 729 97 62		32 4 75 26 17 93	32 2 729 9028	Guy.guizien@eurocontrol.int	

- END -