



International Civil Aviation Organization

MIDANPIRG ATM/AIM/SAR Sub-Group

**Thirteenth Meeting (ATM/AIM/SAR SG/13)
(Cairo, Egypt, 30 September – 3 October 2013)**

Agenda Item 4: ATM/SAR Issues

MID REGION ATM CONTINGENCY PLAN

(Presented by the Secretariat)

SUMMARY

This paper presents a Draft MID Region Air Traffic Management Contingency Plan developed to ensure the continuity of Air Traffic Services in the event of disruption or potential disruption of ATS and supporting services in the MID Region.

Action by the meeting is at paragraph 3.

REFERENCES

- ARN TF/6 Report
- MIDANPIRG/13 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.

2. DISCUSSION

1.2 The meeting may wish to recognise 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, since a number of States have signed contingency planning agreements with adjacent FIRs/States.

2.1 The meeting may wish to recall that MIDANPIRG/13 through Conclusion 13/9 *MID REGIONAL CONTINGENCY PLAN*, urged States and Users to review the MID Regional Contingency Plan and the revised version of the Contingency Routing Scheme Asia/Middle East/Europe 2003 (CRAME-03) and provide updates and comments to the ICAO MID Regional Office before 1 September 2012.

2.2 Accordingly, the ICAO MID Regional Office issued State Letters Ref.: AN 6/1.2.1 – 12/166 dated 12 June 2012 and Ref.: 13/194 dated 21 July 2013, as a follow up action to the above MIDANPIRG/13 Conclusion and to the outcome of the Sixth meeting of the ATS Route Network Task Force (ARN TF/6) held in Cairo, Egypt, 22-24 April 2013. No replies/inputs were received from States or Users.

2.3 Based on the above, the ICAO MID Regional Office has developed a Zero Draft version of the MID Region ATM Contingency Plan, as at **Appendix A** to this working paper to replace and supersede the Draft Regional Contingency Plan and the CRAME 03.

2.4 The Draft MID Region ATM Contingency Plan was prepared taking into consideration the major traffic flows from/to the MID Region. The aim of the Plan is to provide alternative routings and procedures to ensure, to the extent possible, the continued safety of air navigation in the event of partial or total disruption of Air Traffic Services within the MID Region.

3. ACTION BY THE MEETING

3.1 The meeting is invited to review and provide inputs/comments to the MID Region Air Traffic Management Contingency Plan, as at **Appendix A** to this working paper.

APPENDIX A



INTERNATIONAL CIVIL AVIATION ORGANIZATION

MID REGION ATM CONTINGENCY PLAN

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

MID Region Air Traffic management Contingency Plan

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DRAFT

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.

Guidelines for contingency measures for application in the event of disruptions of air traffic services and related supporting services were first approved by the Council on 27 June 1984 in response to Assembly Resolution A23-12, following a study by the Air Navigation Commission and consultation with States and international organizations concerned, as required by the Resolution. The guidelines were subsequently amended and amplified in the light of experience gained with the application of contingency measures in various parts of the world and in differing circumstances.

The purpose of the guidelines is to assist in providing for the safe and orderly flow of international air traffic in the event of disruptions of air traffic services and related supporting services and in preserving the availability of major world air routes within the air transportation system in such circumstances.

The MID Regional Air Traffic Management Contingency Plan is primarily for the information to 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.

This Contingency Plan has been developed with the approval 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 Organization (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.

INTRODUCTION

The Air Traffic Management (ATM) Contingency Plan has been developed to ensure, to the extent possible, the continued safety of air navigation in the event of disruption or potential disruption of Air Traffic Services and related supporting services in the MID Region, in accordance with the provisions of ICAO Annex 11 – Air Traffic Services, Chapter 2, paragraph 2.30 and Attachment C.

The MID Region is fast growing continental airspace in the world, and is strategically situated between European and North Atlantic (EUR/NAT) Region to the North, Western and Central African (WACAF) Region to the west, Eastern and Southern African (ESAF) Region to the South East and Asia/Pacific (APAC) Region to the East. In 2010 in excess of **976400** 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 table shows the aircraft movements forecast to the year 2030:

	Actual	Forecast	Average Annual Growth
	2010	2030	2010-2030 (per cent)
AFR-MEA	68588	446722	9.8
ASIA-MEA	261359	1384191	8.7
EUR-MEA	276285	977855	6.5
INTRA MEA	349324	2287506	9.9
NAM-MEA	20843	107917	8.6
TOTAL	976399	5204191	8.7

Contingency Routing (CR) has been developed and contained in the Plan based on the major traffic flows through the MID Region, taking into consideration the number of the movements between City Pairs.

This Plan is designed to provide alternative routes for the traffic flows between the MID Region and Asia, Africa, and Europe, which will allow aircraft operators to circumnavigate airspace(s) in the MID Region, as deemed necessary, or due to a perceived risk to the safety of flight, with a minimum of disruption to flight operations.

These alternative routes (Contingency Routing – CR) are based mainly on the existing route network. Establishment of temporary routes could be considered to relief traffic congestion resulting from the implementation of the Contingency plan.

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.

By agreement between States and coordination with the International Organizations through the ICAO Regional Offices of APAC, ESAF, EUR/NAT, MID and WACAF, this Contingency Plan and its amendment should be approved by the President of the ICAO Council on behalf of the Council.

The appropriate ICAO Regional Office will distribute this contingency plan to all relevant States and international organisations within their regions.

This Contingency Plan should be reviewed regularly and amended as appropriate. Amendments and revisions are to be coordinated with affected States, organisations, and ICAO. Proposed amendments to the Contingency Plan should be forwarded to the relevant ICAO Regional Office for action.

This Document is available to users through the ICAO MID website <http://www.icao.int/mid/>

To assist in keeping this document up to date, Stakeholders are encouraged to provide the ICAO MID Regional Office (icaomid@icao.int) with their comments/suggestions.

MID Region ATM Contingency Focal Points

The List of the MID Region ATM Contingency Focal Points is at **Table 1**. This list should be reviewed and updated, as appropriate.

Table 1**MID Region ATM Contingency Focal Points**

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
BAHRAIN						
Mr. Ali Ahmed Mohammed	973 17321116		973 39969399	973 17321 9977	aliahmed@caa.gov.bh	Bahrain ACC Duty Supervisor Tel: 973 1732 1081/1080 Fax: 973 1732 1029 Email : bahatc@caa.gov.bh
Mr. Saleem Mohammed Hasan	9731732 1117		973 39608860	973 17321 9966	saleemmh@caa.gov.bh	
EGYPT						
Mr. Moatassem Bellah Abd Elraheem Baligh	202 265 7849	202 639 1792	01001695252	202 268 0627	moatassem_5@hotmail.com	
Mr. Aly Hussien Aly	202 637 3950	202 417 8460	201 01609 760	202 268 0627		
IRAN						
Mr. Ebrahim Shoushtari Deputy CEO for Aeronautical Operations (IAC)	982163148900		989121861900	9821 63148906	E_shoushtari@yahoo.com E.shoushtari@airport.ir	<i>Note.- During New Year Holidays in Iran (20 March – 5 April) or for any urgent message Contact Tehran ACC on +9821-44544116</i>
Mr. Ali- Arabi DG of ATS Department	98 21 445 44101		98-9122967946	9821 44544102	aarabi@airport.ir	
Mr. Javad – Pashaei Deputy Director of ATS Dept.	9821 44544103		989122967946	9821 44544102	aarabi@airport.ir	
Mr. Ramezan Ali Ziaee Deputy Director of ATS Dept.	9821-44544103		989123874917	9821 44544102	r.a.ziaee@airport.ir	

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
IRAQ						
Mr. Ali Mohsin Hashim ATS Director	96418133370	9647702997761	9647815762525		atc_iraqcaa@yahoo.com	
JORDAN						
Nayef Al Marshoud Director, ATM	9626 489 7729	962 5 3862584	962 797498992 962 777789470	9626 4891 266	nayefmarshoud@hotmail.com datm@carc.gov.jo	
KUWAIT						
Mr. Adel S. Boresli	965 24710268		96599036556	965 24346221	as.buresli@dgca.gov.kw	
LEBANON						
Walid Al Hassanieh Chief Air Navigation Dept.	+ 961 1 628178		+961 70474517	+961 1 629023	hassaniehw@beirutairport.gov.lb	AFTN OLBAZPZX
LIBYA						
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	
SAUDI ARABIA						
Mr. Mohammad Al Alawi	96626401005		96655621582	9662 6401005	alalawi_m@yahoo.com	
SUDAN						
SYRIA						
Eng. Feras MohamadDirector General of Civil Aviation	963 1133 33815			963 11 2232201	dgca@scaa.sy	<u>P.O.BOX:6257 Damascus, Syria</u>
Hassan Hamoud ATM Director	009631154010180	00963116460395	00963 988235106	963 11 540101801	atm@scaa.sy	<u>P.O.BOX:6257 Damascus, Syria</u>

NAMES	PHONE (WORK)	PHONE (HOME)	MOBILE PHONE	FAX	E-MAIL	OTHER CONTACT DETAILS
UNITED ARAB EMIRATES (UAE)						
Mr. Ahmed Al Jallaf Executive Director, Air Navigation Service Provider	9712 599 6888		97150 614 9065	9712 599 6883	aljallaf@szc.gcaa.ae	9712 599 6999 SCZ
YEMEN						
Mr.Abdullah Ahmed Al- Awlaqi	9671 345 402	9671 506828	96777776830	967-1-344047	ns@gmail.com	D.G ANS
Abdullah Abdulwareth Aleryani	967-1-345403	967-1-344254	967777190602	967-1-345403	ernlabd@gmail.com	D.G ACC/FIC
Ahmed Mohammed Al- Koobati	967-1-344675	967-1-214375	967777241375	967-1-344047	70@yahoo.com	D.Air Navigation Operation
IATA MID						
ICAO MID						
Elie El Khoury (RO ATM/SAR)	202 267 4845 ext 104			202 267 4843	ekhouryi@icao.int	
Mohamed Smaoui (DRD)	202 267 4841 ext. 116/115			202 267 4843	msmaoui@icao.int	
ICAO APAC						
ICAO ESAF						
ICAO WACAF						
ICAO Headquarters – Montreal						
Chris Dalton (C/ATM)	1514 954-6711	1 514 281-0731	1 514 951-0283	1-514-954 8197	cdalton@icao.int	

Chapter 1

MID STATES' CONTINGENCY PLANS

Air traffic services authorities shall develop and promulgate contingency plans for implementation in the event of disruption, or potential disruption, of air traffic services and related supporting services in the airspace for which they are responsible for the provision of such services. Such contingency plans shall be developed with the assistance of ICAO as necessary, in close coordination with the air traffic services authorities responsible for the provision of services in adjacent portions of airspace and with airspace users concerned.

The State(s) responsible for providing air traffic services and related supporting services in particular portions of airspace is (are) also responsible, in the event of disruption or potential disruption of these services, for instituting measures to ensure the safety of international civil aviation operations and, where possible, for making provisions for alternative facilities and services. To that end the State(s) should develop, promulgate and implement appropriate contingency plans. Such plans should be developed in consultation with other States and airspace users concerned and with ICAO, as appropriate, whenever the effects of the service disruption(s) are likely to affect the services in adjacent airspace.

The responsibility for appropriate contingency action in respect of airspace over the high seas continues to rest with the State(s) normally responsible for providing the services until, and unless, that responsibility is temporarily reassigned by ICAO to (an) other State(s).

States should periodically review their national contingency plan and coordinate any amendments with neighbouring States and ICAO.

MID States' Contingency Plans are available at the ICAO MID Regional Office and the status of contingency plans agreements in the MID Region is at **Table 2**.

Status of Contingency Plans Agreements in the MID Region

STATE	CORRESPONDING STATES	STATUS	STATE	CORRESPONDING STATES	STATUS
BAHRAIN	IRAN KUWAIT OMAN QATAR SAUDI ARABIA UAE	Signed Signed Signed Signed Signed Signed	OMAN	BAHRAIN INDIA IRAN PAKISTAN UAE YEMEN	Signed Signed Signed Signed
EGYPT	GREECE JORDAN LYBIA CYPRUS SAUDI ARABIA SUDAN	Signed Signed Signed Signed Signed Signed	QATAR	BAHRAIN SAUDI ARABIA UAE	Signed
IRAN	ARMENIA AZERBAIJAN TURKMANISTAN AFGHANISTAN BAHRAIN IRAQ KUWAIT OMAN PAKISTAN TURKEY UAE	Signed Signed Signed Signed	SAUDI ARABIA	BAHRAIN EGYPT ERITREA IRAQ JORDAN KUWAIT SUDAN YEMEN	Signed Signed Signed Signed
IRAQ	IRAN JORDAN KUWAIT SAUDI ARABIA SYRIA TURKEY		SUDAN	CENTRAL AFRICAN CHAD EGYPT ERITREA ETHIOPIA LIBYA SAUDI ARABIA SOUTH SUDAN	
JORDAN	EGYPT IRAQ ISRAEL SAUDI ARABIA SYRIA	Signed Signed	SYRIA	IRAQ JORDAN LEBANON CYPRUS TURKEY	
KUWAIT	BAHRAIN IRAN IRAQ SAUDI ARABIA	Signed Signed	UAE	BAHRAIN IRAN OMAN QATAR	Signed Signed
LEBANON	CYPRUS SYRIA		YEMEN	DJIBOUTI ERITREA ETHIOPIA INDIA OMAN SAUDI ARABIA SOMALIA	Signed
LIBYA	ALGERIA CHAD EGYPT MALTA NIGER SUDAN TUNIS				

Table 2

Chapter 2

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 national plan. However the general format will be as the following example of the type of information which may be promulgated:

NOTAM

“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 (States 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).”

AIR TRAFFIC MANAGEMENT

ATS Responsibilities

Tactical ATC considerations during periods of overloading may require re-assignment of routes or portions thereof.

Alternative routes should be designed to maximize the use of existing ATS route structures and communication, navigation and surveillance services.

In the event that ATS cannot be provided within the (XXX) CTA/UTA/FIR, the Civil Aviation Authority shall publish the corresponding NOTAM indicating the following:

- a) Time and date of the beginning of the contingency measures;
- b) Airspace available for landing and overflying traffic and airspace to be avoided;
- c) Details of the facilities and services available or not available and any limits on ATS provision (e.g., ACC, APP, TWR and FIS), including an expected date of restoration of services if available;
- d) Information on the provisions made for alternative services;
- e) ATS contingency routes;
- f) Procedures to be followed by neighbouring ATS units;
- g) Procedures to be followed by pilots; and
- h) Any other details with respect to the disruption and actions being taken that aircraft operators may find useful.

In the event that the CAA is unable to issue the NOTAM, the (alternate) CTA/UTA/FIR will take action to issue the NOTAM of closure airspace upon notification by corresponding CAA or the ICAO MID Regional Office.

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

Where possible, aircraft on long-haul international flights shall be given priority with respect to cruising levels.

Other measures

Other measures related to the closure of airspace and the implementation of the contingency scheme with the (XXX) CTA/UTA/FIR may be taken as follows:

- a) Suspension of all VFR operations;
- b) Delay or suspension of general aviation IFR operations; and
- c) Delay or suspension of commercial IFR operations.

Transition to Contingency Plan

During times of uncertainty when airspace closures seem possible, aircraft operators should be prepared for a possible change in routing while en-route, familiarization of the alternative routes outlined in the contingency plan as well as what may be promulgated by a State via NOTAM or AIP.

In the event of 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 instructions.

ATS providers should recognize that when closures of airspace or airports are promulgated, individual airlines might 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 Coordination

The transfer of control and communication should be at the common FIR boundary between ATS units unless there is mutual agreement between adjacent ATS units. ATS providers should also review current coordination requirements in light of contingency operations or short notice of airspace closure.

Chapter 4

AIRSPACE AND ROUTES

This Contingency Plan has been developed based on existing ATS routes and making use of appropriate contingency routes in the MID Region. Priority has been given to safety considerations and to ensuring that to the extent 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 would be designed to be safe and instantly manageable by ATC. This may require additional track miles to be flown by the aircraft operator.

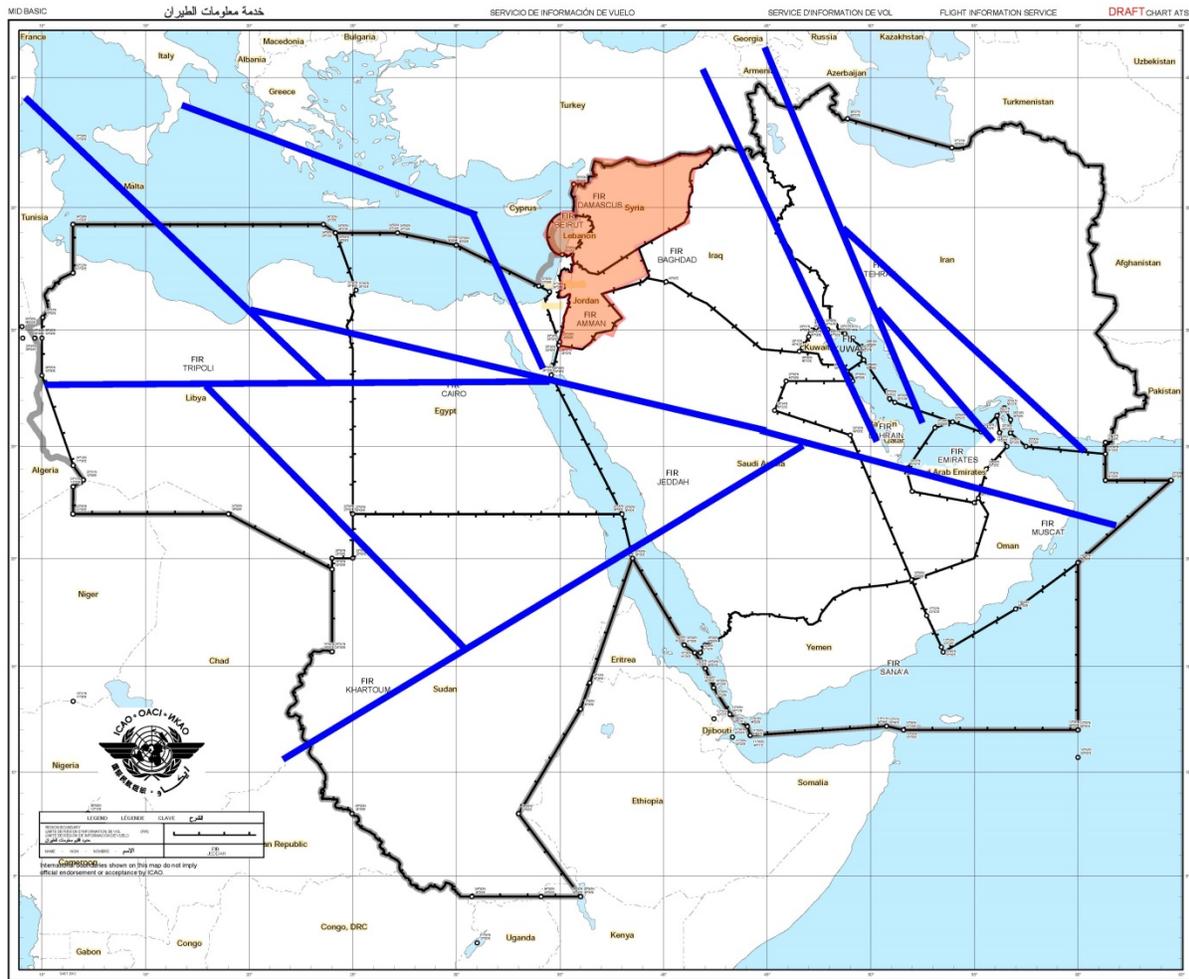
The alternative routings were given CR designators based on various scenarios that may take place. It is to be highlighted that the scenarios drawn on the charts were developed based on the existing route network, and do not reflect new routes. Furthermore, one scenario could be used to avoid different FIRs, subject to users' requirements. The scenarios are detailed in the **Table 2** below:

CR	FIR(s) to be Avoided	Traffic Flows through the MID Region Alternative routings/FIRs	Remarks
CR 1	Bahrain	<p><i>Eastern Europe from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Ankara, Baghdad, Tehran, UAE, Muscat ▪ Ankara, Baghdad, Jeddah, Sana'a, Muscat <p><i>Western Europe from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Nicosia, Beirut, Damascus, Amman, Jeddah, Sana'a; Muscat ▪ Nicosia, Damascus, Amman, Jeddah ▪ Nicosia, Cairo, Jeddah, Sana'a, Muscat <p><i>Northern Africa from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Cairo, Jeddah, Sana'a, Muscat <p><i>Southern Africa from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Khartoum, Jeddah, Sana'a, Muscat ▪ Addis Ababa, Mogadishu, Sana'a, Muscat 	
CR 2	Cairo	<p><i>Eastern Europe from/to Asia</i></p> <p>NA</p> <p><i>Western Europe from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Nicosia, Beirut, Damascus, Amman, Jeddah ▪ Nicosia, Damascus, Baghdad; Kuwait, Bahrain, UAE ▪ Malta, Tripoli, Khartoum, Jeddah ▪ Malta, Tripoli, Khartoum, Asmara, Jeddah or Sana'a <p><i>Northern Africa from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Tripoli, Khartoum, Jeddah ▪ Tripoli, Khartoum, Asmara, Jeddah or Sana'a ▪ Algiers, Niamey, N'djamena, Khartoum, Asmara, Jeddah or Sana'a <p><i>Southern Africa from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Khartoum, Jeddah, Sana'a, Muscat ▪ Addis Ababa, (Asmara Jeddah) or (Mogadishu, or Sana'a) 	
CR 3	Amman, Beirut, Damascus	<p><i>Eastern Europe from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Ankara, Baghdad Jeddah or Kuwait; ▪ Ankara, Tehran 	

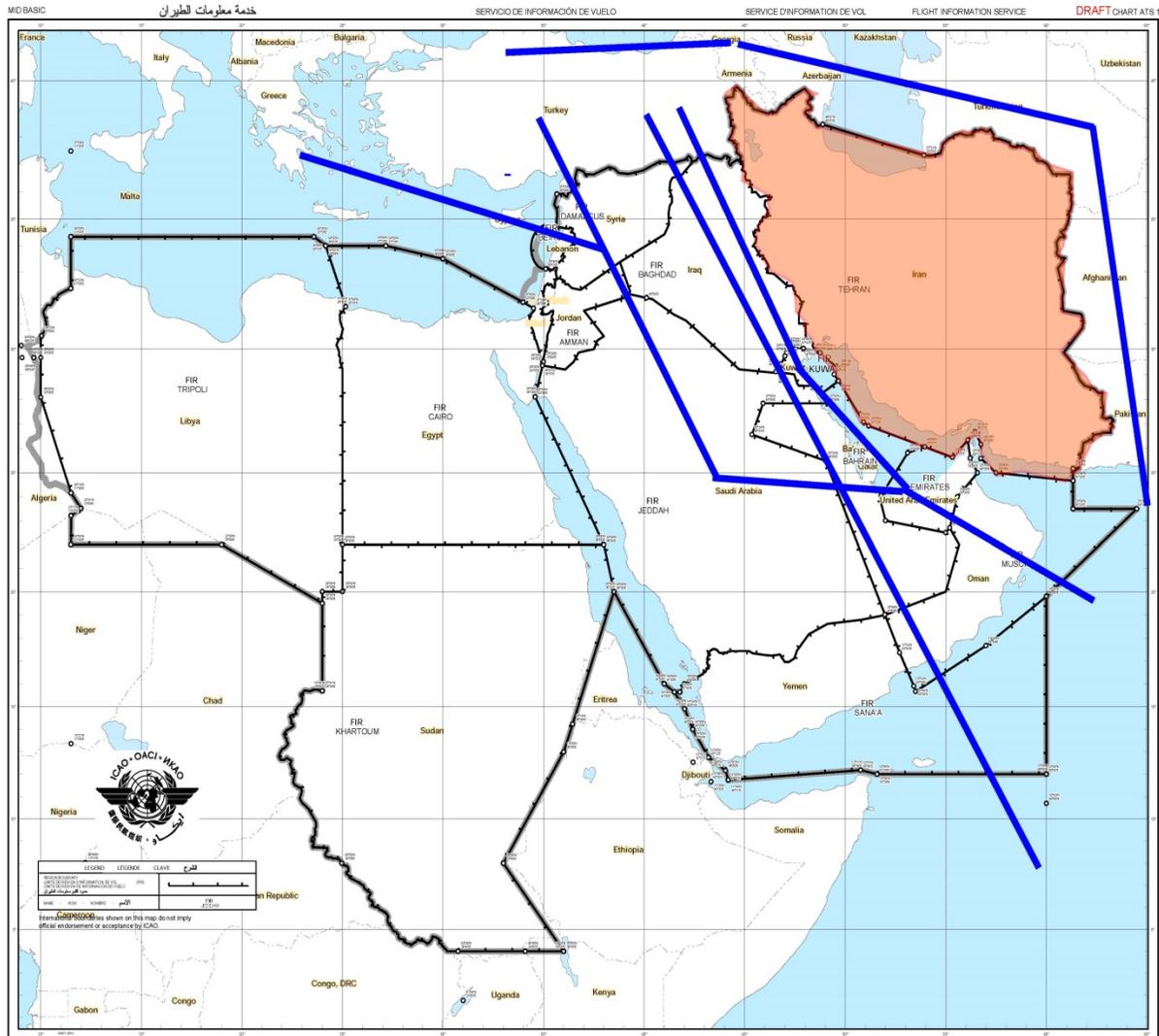
		<p>Western Europe from/to Asia</p> <ul style="list-style-type: none"> ▪ Nicosia, Cairo, Jeddah <p>Northern Africa from/to Asia</p> <ul style="list-style-type: none"> ▪ Cairo, Jeddah <p>Southern Africa from/to Asia</p> <ul style="list-style-type: none"> ▪ Khartoum Addis Ababa, Mogadishu, Sana'a ▪ Khartoum, Jeddah 	
CR 4	Iran	<p>Eastern Europe from/to Asia</p> <ul style="list-style-type: none"> ▪ Baku, Turkmenbashi, Ashgabat, Turkmenabat, Kabul, Karachi, Muscat or Delhi ▪ Baghdad, Kuwait, Bahrain, UAE, Muscat ▪ Nicosia Damascus Amman, Jeddah <p>Western Europe from/to Asia</p> <ul style="list-style-type: none"> ▪ Nicosia, Beirut, Damascus, Amman, Jeddah ▪ Nicosia, Cairo, Jeddah <p>Northern Africa from/to Asia</p> <ul style="list-style-type: none"> ▪ Tripoli, Cairo, Jeddah ▪ Tripoli, Khartoum, Jeddah <p>Southern Africa from/to Asia</p> <ul style="list-style-type: none"> ▪ Khartoum, Jeddah ▪ Addis Ababa, (Asmara Jeddah) or (Mogadishu, or Sana'a) 	
CR 5	Baghdad	<p>Eastern Europe from/to Asia</p> <ul style="list-style-type: none"> ▪ Ankara, Tehran, (Kuwait) or (Bahrain) or (UAE) ▪ Nicosia, Beirut, Damascus, Amman, Jeddah ▪ Ankara, Damascus, Amman, Jeddah <p>Western Europe from/to Asia</p> <ul style="list-style-type: none"> ▪ Nicosia, Beirut, Damascus, Amman, Jeddah ▪ Nicosia, Damascus, Amman, Jeddahr ▪ Nicosia, Cairo, Jeddah <p>Northern Africa from/to Asia</p> <ul style="list-style-type: none"> ▪ Cairo, Jeddah <p>Southern Africa from/to Asia</p> <ul style="list-style-type: none"> ▪ Addis Ababa, (Asmara Jeddah) or (Mogadishu, or Sana'a) 	
CR 6	Tripoli	<p>Eastern Europe from/to Asia</p> <p>NA</p> <p>Western Europe from/to Africa</p> <ul style="list-style-type: none"> ▪ Cairo, Khartoum <p>Northern Africa from/to South Africa or Middle East</p> <ul style="list-style-type: none"> ▪ Athens, or Nicosia to Cairo, Khartoum or Jeddah ▪ Tunis, Algiers, Niamey, N'djamena <p>Southern Africa from/to Asia</p> <p>NA</p>	
CR 7	Muscat, UAE	<p>Eastern Europe from/to Asia</p> <ul style="list-style-type: none"> ▪ Ankara, Baghdad, Tehran, UAE, Muscat ▪ Ankara, Baghdad, Jeddah, Sana'a, Muscat <p>Western Europe from/to Asia</p> <ul style="list-style-type: none"> ▪ Nicosia, Beirut, Damascus, Amman, Jeddah, Sana'a; Muscat ▪ Nicosia, Damascus, Amman, Jeddah ▪ Nicosia, Cairo, Jeddah, Sana'a 	

		<p><i>Northern Africa from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Cairo, Jeddah, Sana'a <p><i>Southern Africa from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Khartoum, Jeddah, Sana'a, Muscat ▪ Addis Ababa, (Asmara Jeddah) or (Mogadishu, or Sana'a) 	
CR 8	Jeddah	<p><i>Eastern Europe from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Ankara, Baghdad, Jeddah, Sana'a ▪ Ankara, Damascus, Amman, Jeddah, Sana'a <p><i>Western Europe from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Nicosia, Beirut, Damascus, Amman, Jeddah, Sana'a ▪ Athens or Nicosia, Cairo, Jeddah, Sana'a <p><i>Northern Africa from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Cairo, Jeddah, Sana'a <p><i>Southern Africa from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Khartoum, Jeddah, Sana'a ▪ Addis Ababa, Mogadishu, Sana'a, Muscat 	
CR 9	Khartoum	<p><i>Eastern Europe from/to Asia</i></p> <p>NA</p> <p><i>Western Europe from/to Africa</i></p> <ul style="list-style-type: none"> ▪ Athens or Nicosia, Cairo, Jeddah, Asmara or (Sana'a, Mogadishu), Addis Ababa, Nairobi, Entebbe, Kinshasa, Brazzaville, N'djamena <p><i>Northern Africa from/to Asia</i></p> <ul style="list-style-type: none"> ▪ Cairo, Jeddah, Asmara or (Sana'a, Mogadishu), Addis Ababa, Nairobi ▪ Tripoli, N'djamena, Brazzaville, Kinshasa, Entebbe, Nairobi Addis Ababa, Mogadishu, Sana'a, Jeddah or Muscat. <p><i>Southern Africa from/to Asia</i></p> <p>NA</p>	

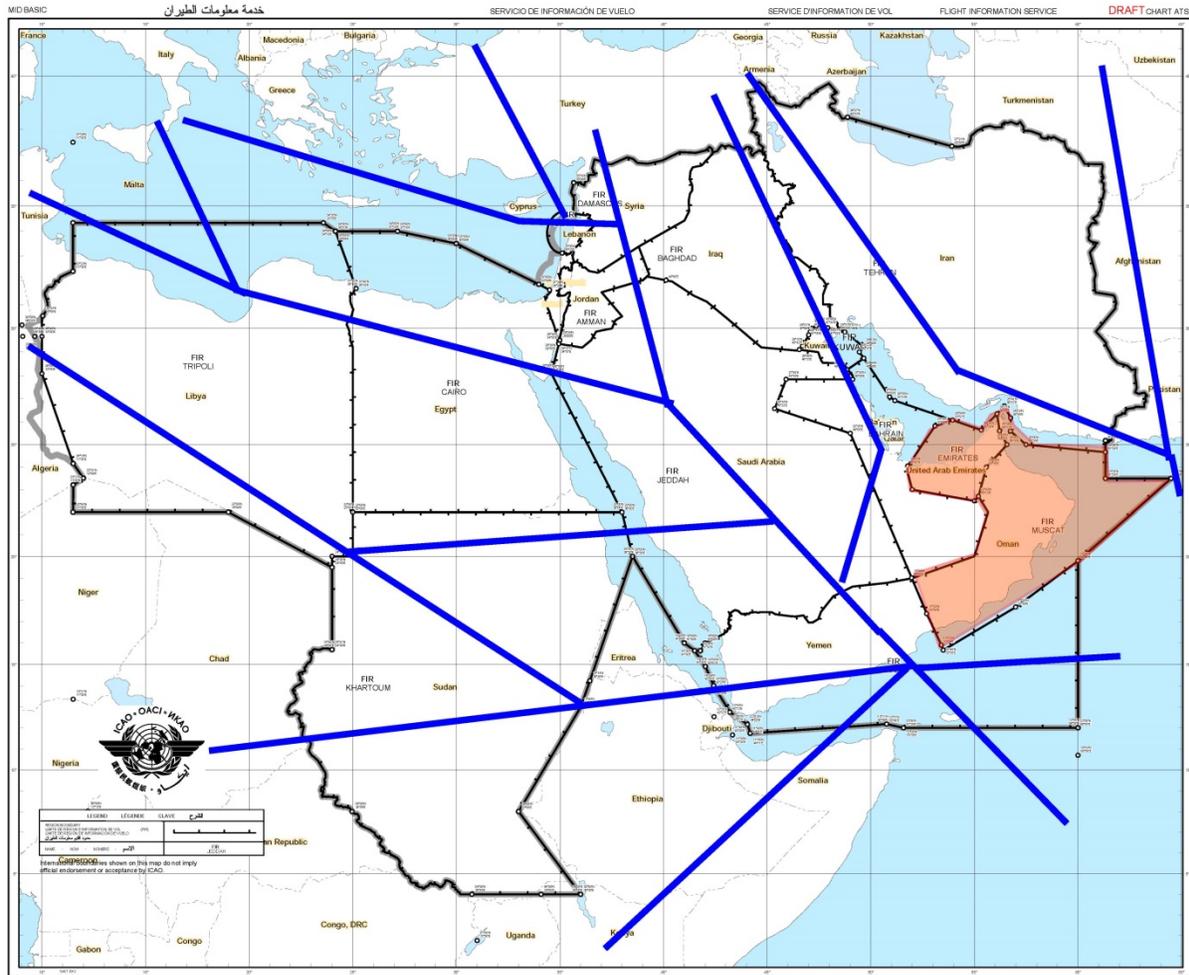
Table 3



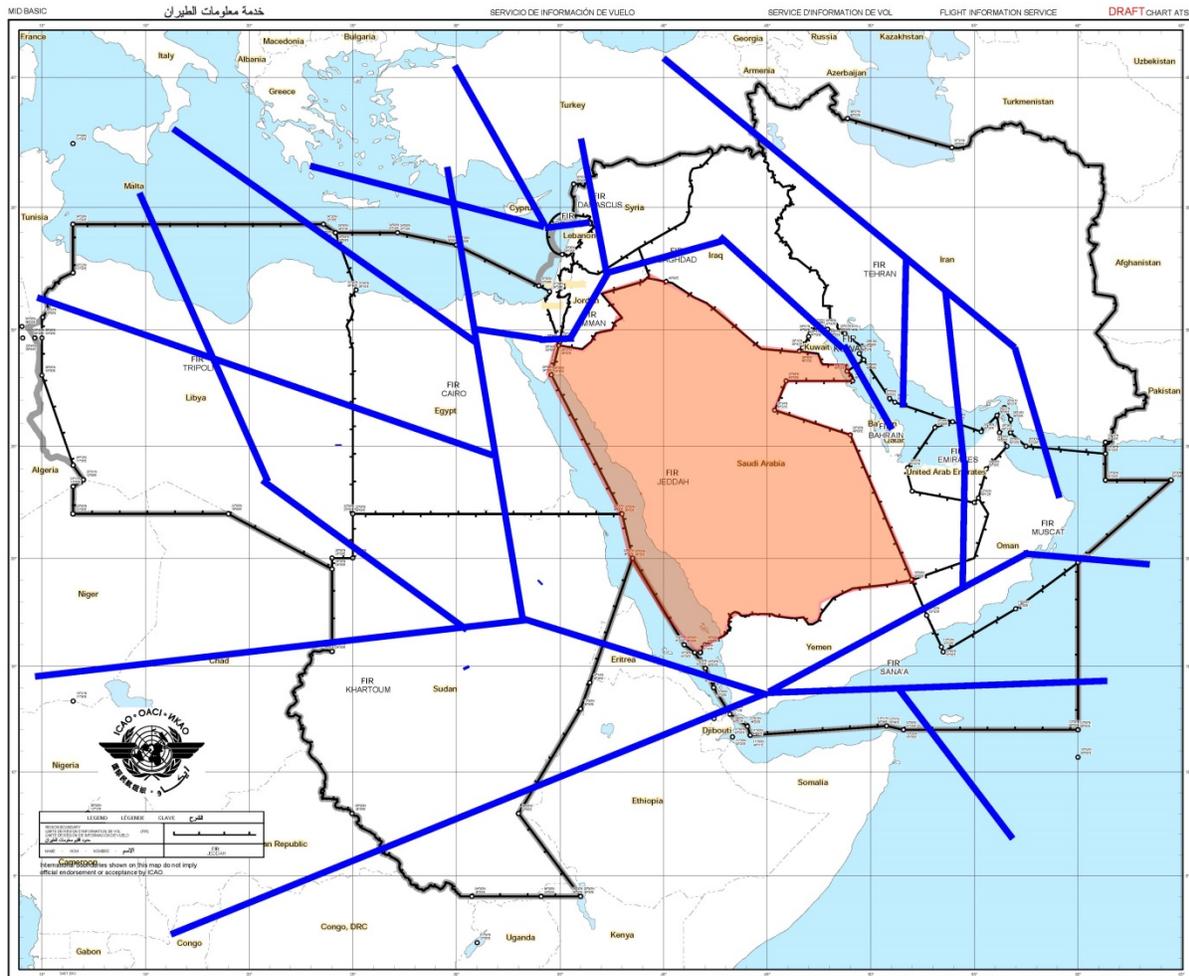
CR 3



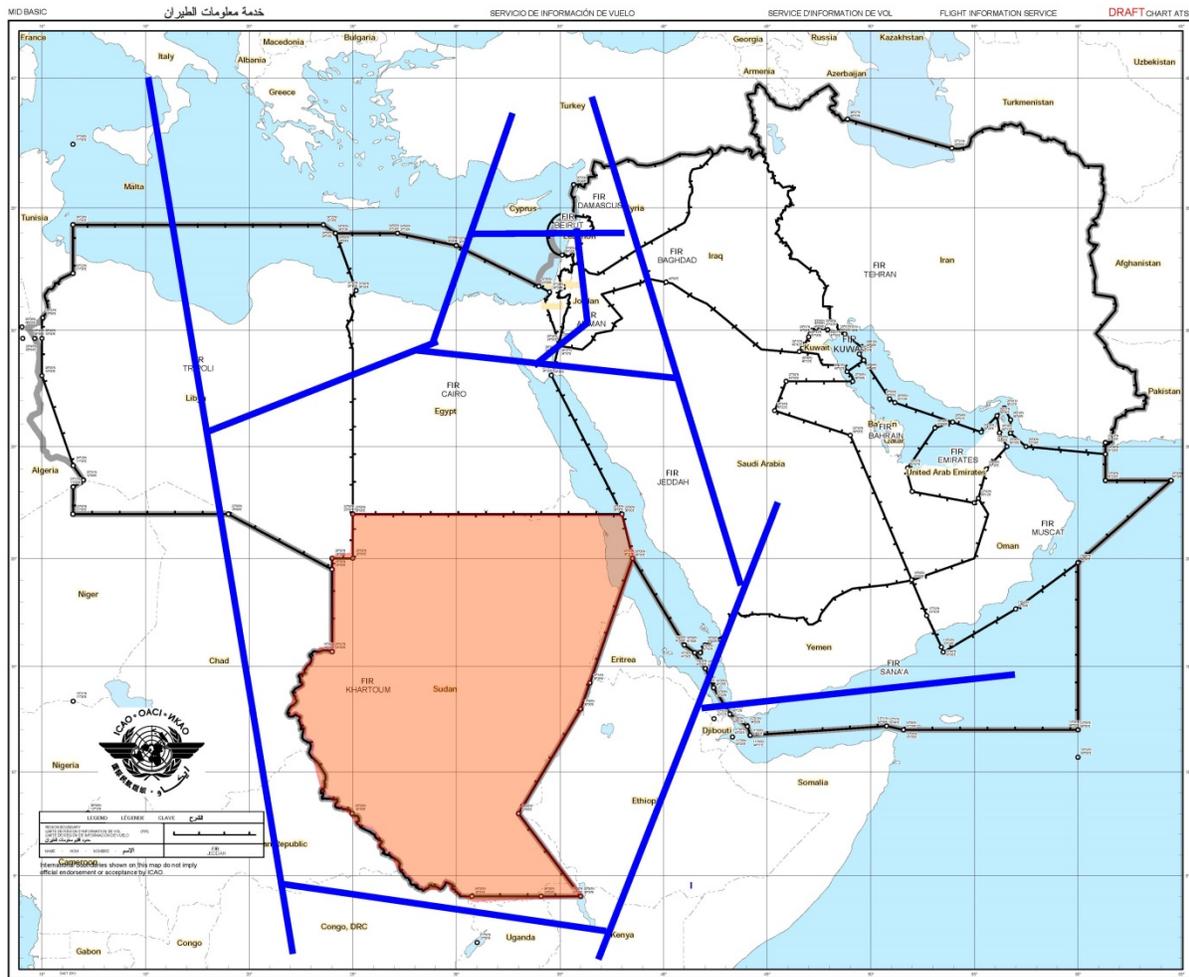
CR 4



CR 7



CR 8



CR 9

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