International Civil Aviation Organization

MIDANPIRG/23 & RASG-MID/13 Meetings

(Cairo, Egypt, 14 – 18 June 2026)

Agenda Item 5.6: ATM-SAR

ASM AND ATFM

(Presented by the Secretariat)

SUMMARY

This paper presents the progress report of the ATM subjects related to airspace management (ASM) and air traffic flow management (ATFM).

Action by the meeting is at paragraph 3.

REFERENCE

- MIDANPIRG/16 (Kuwait, 13-16 February 2017);
- MSG/6 (Cairo, Egypt, 3 - 5 December 2018);
- MIDANPIRG/17 (Cairo, Egypt, 15 – 18 April 2019);
- MIDANPIRG/19 (Riyadh, Saudi Arabia, 14 - 17 February 2022);
- MIDANPIRG/20 (Muscat, Oman, 14 – 17 May 2023)
- MIDANPIRG/21 (Abu Dhabi, UAE, 4 – 8 March 2024)
- ATM SG/11 (Abu Dhabi, UAE, 19-23 October 2025);
- ASM WG/4 (Virtual, 20-21 May 2026);
- ATFM TF/9 (Dubai, UAE, 27 February 2025);
- ICAO APAC/MID ATM Contingency Planning Workshop (Bangkok, Thailand, 25 28 June 2024);
- Region ATM Contingency Framework Workshop (Muscat, Oman, 1 – 5 February 2026).

1. INTRODUCTION

1.1 The Airspace Management Working Group (ASM WG) was established by MIDANPIRG/21 through Decision 21/10 as a centralized entity to address the Airspace management challenges and further enhance the coordination at regional level.

MIDANPIRG DECISION 21/10: MID AIRSPACE MANAGEMENT WORKING GROUP (ASMWG)

That,

a) MID Airspace Management Working Group (ASM WG) be established to ensure the continuous development of airspace structure, Free Route Airspace, GNSS vulnerability and FF-ICE implementation at regional level in the most efficient and

harmonized manner;

b) the ASM TF to elect Chairperson and develop Terms of Reference during the first meeting of MID ASM Task Force; and

c) States support the MID ASM WG through:

i. assignment of Focal Point to contribute to the work of the Task Force; and

ii. sharing states' experience and provision of required data in timely manner.

1.2 The Air Traffic Flow Management Task Force (ATFM TF) was established by MIDANPIRG/16 through Decision 16/16 as follows:

DECISIONS 16/16: ATFM TASK FORCE

That,

a) an ATFM Task Force be established to develop an ATFM Concept of Operations for the MID Region;

b) the ATM SG/3 meeting develop the terms of reference of the ATFM Task Force; and

c) States support the ATFM Task Force through:

i. assignment of ATFM Focal Point to contribute to the work of the Task Force; and

ii. provision of required data in timely manner, and in particular to the survey that will be carried out related to the airspace and sectors capacity, hot-spots, ATFM measures/system, etc.

1.3 The ATFM Implementation Action Plan was endorsed by the MIDANPIRG/17 Meeting through Conclusion 17/22 and identified 6 key activities required for the implementation of ATFM in the MID Region as follows:

Key Activity 1: Agreement on the ATFM Regional Framework
Key Activity 2: Development of CONOPS
Key Activity 3: Development of ATFM Regional Framework and Common Operating Procedures
Key Activity 4: Implementation of ATFM in the MID Region
Key Activity 5: Post Implementation Review of the MID ATFM Regional Framework
Key Activity 6: Training and raising awareness related to ATFM

2. DISCUSSION

ASM- Optimization of MID region ATS route designator

2.1 The meeting may wish to recall the MIDANPIRG/21 meeting Conclusion 21/5 as follows:

MIDANPIRG CONCLUSION 21/5: OPTIMIZATION OF MID REGION ATS ROUTE DESIGNATOR

That,

a) the ICAO MID Office based on Traffic Data Sample (TDS) identify the main flows of the region to maintain their ATS route designators as much as possible through various consecutive FIRs and regions with coordination of relevant States and ICAO regions; and

b) develop required Proposal for Amendment (PfA) to the MID eANP Vol II, Table ATM II-MID-I.

2.2 Based on the above, the ASM WG addressed the subject, and, using the Traffic Data Samples (TDS) provided by States to MIDRMA, the required proposals at **Appendix A** were drafted for review by ASM WG/5, including the preparation of Proposals for Amendment (PfA), prior to their subsequent submission to ATM SG/12 and final presentation to MIDANPIRG/24.

ASM- MID Region ATS Route Designator related to approved PfA

2.3 The meeting may wish to recall the MIDANPIRG Conclusions 19/13 and 20/27. Pursuant to these Conclusions, the Secretariat developed and processed PfAs "MID.II.22/01-ATM" and "MID.II.23/02-ATM" to address the identified issues and challenges related to the ATS route network. Following their approval, it is essential to ensure that the AIPs of the concerned States are aligned with the approved PfAs. The Table below outlines the actions taken by States to update their AIPs accordingly.

State	Change route designator PfA MID.II.22/01-ATM & MID.II.23/02-ATM
Bahrain	T557 to L557, Y604 to L704, Y856 to M556, T308 to M708, Z622 to M722, T872 to N572, T602 to N702, T319 to P319, T430 to P550, T444 to P700, T934 to P713.
Iran	W4 to A414, W136 to M434, W148 to B418, W141 to B541, W147 to B547, J5 to M555, Z151 to L700/N717, Q13 to L713, Z627 to L717, Z680 to L720, T301 to M701, Z670 to M710, T215 to M715, T218 to M718, Q19 to M719, Z675 to N567, Z350 to N570, T665 to N700, T602 to N702, Z151 to N717, T202 to P302, T319 to P319, T430 to P550, Z855 to P558, T975 to P715 and Q18 to P718.
Libya	V300 to A420, W861 to B727, G659 to J615, G660 to J622, G661 to J725, G662 to J730, G663 to J850, G665 to J855, G739 to J977, G855 to J980, W9 to M709, Z178 to N708, V100 to N711, W857 to N982, Z350 to P310, Z270 to P560, W863 to P563, Z333 to P573, W852 to P702, T295 to P706, T299 to P709, T297 to M707 & Y751 to M855.
Oman	L695, M303, M681, M877, N430, P304, P316, P513, R402 to non-regional T507 to L559, T980 to L700, Q620 to M700, Z515 to M717, T970 to N570, Q978 to N718, Z515 to M717
Qatar	Y604 to L704, T665 to N700, T430 to P550, T444 to P700
Saudi Arabia	G674, G799, M309 to non-regional H732 to A776, H741 to A421, J735 to B401, J749 to B405, J852 to B537, J874 to B548, T136 to L716, Y415 to M705, Y511 to M711, Z515 to M717, Q332 to N323, Y517 to N707, T513 to N713, V975 to R664, Q510 to P710, T100 to P711, Q212 to P712, Q21 to P721, Q143 to P723, Q615 to P753, Q624 to P752 & T142 to N722.
Sudan	B572 to L567, M320 to M323, Y613 to M713, Q733 to M723, V790 to N720, T238 to P318, P562 to P572, Z980 to P720.
Syria	A21 to R655, B538 to Q538, J222 to N310, Q52 to N565
UAE	L552 to Y552, T507 to L559, L562 to Q572, L565 to Q565, L568 to Q568, M302 to Q312, M322 to Q322, M552 to Z522, M558 to Y558, M560 to T560, M569 to Q569, N313 to Q323, N566 to Q576, T665 to N700, Q415 to N715, P308 to Q308, P311 to Q311, P317 to Q317, P321 to Q321, P553 to Q563.
Yemen	L566 to Y101, P552 to Y103, R799 to Y105

ASM- Removal of ATS Route prefix "U"

2.4 The meeting may wish to recall MSG/6 Conclusion 6/9 regarding the removal of the prefix "U" from ATS route designators. Accordingly, the ASM WG undertook the necessary follow-up actions with MID States to ensure the implementation of this requirement. As reported by ASM WG/4, the deletion of the prefix "U" has been completed by all MID States, with the exception of Lebanon.

ASM- Project 30/10 roadmap and implementation

2.5 The meeting may wish to recall the following MIDANPIRG/22 Conclusions related to this subject:

MIDANPIRG DECISION 22/10: PROJECT 30/10 ROADMAP

That, the ATM SG develop roadmap for the implementation of Project 30/10 in the MID Region, including the inter-regional aspects.

and

MIDANPIRG CONCLUSION 22/11: IMPLEMENTATION OF REDUCED LONGITUDINAL SEPARATION IN THE MID REGION

a) States, that have not yet done so:

i. be urged to implement reduction of longitudinal separation where appropriate:
- reduce longitudinal separation down to 10 NM; where ATS surveillance service provided; and
- reduce longitudinal separation down to 30 NM, where no ATS surveillance service provided.

ii. be invited to agree with their adjacent FIRs/States on the date of implementation and updating of the LoAs.

b) the ATM SG monitors the progress of implementation and undertakes necessary measures to promote its advancement.

2.6 The meeting may wish to note that the ASM Working Group has deliberated extensively on this subject, collecting the required data from MIDRMA and verifying it with the concerned States, as presented at **Appendix B**. The current status of MID Region FIR boundary points—including inter-regional boundaries—has been analyzed in terms of separation, traffic flow direction, and number of movements. This analysis aims to identify the main transfer points and potential hot spots within the region, which require further technical and operational consideration.

2.7 Based on the data collected and presented in **Appendix B**, the ASM WG established Project 30/10 Action Group to develop the required roadmap. During ASM WG/4, the draft roadmap at **Appendix C** was reviewed, and the Action Group was tasked to incorporate three additional appendices. These include: "*Guidance Material for the selection of appropriate separation minima in accordance with ICAO Doc 4444"*, "*a Template for conducting safety assessments*", and "*a Template for the development of a harmonized action plan*". In addition, an attachment should be included to reflect the experience of MID States in ATS surveillance data sharing with adjacent FIRs. These materials will be further discussed at ASM WG/5 and ATM SG/12 prior to their submission to MIDANPIRG/24.

2.8 According to the draft roadmap at **Appendix C**, particularly the "*Priority 1 FIR boundary points*", States are responsible for each boundary point, to coordinate with their adjacent FIRs in order to develop the required action plans for the implementation of Project 30/10. These action plans should be comprehensive and include, inter alia, defined targets and identified solutions (covering quick wins, such as the implementation of alternative longitudinal separation minima as described in ICAO Doc 4444, ATS surveillance data sharing, and/or mid- to long-term measures, such as the procurement of ATS surveillance systems), as well as implementation timelines, safety assessments, training requirements, updating of the relevant Letters of Agreement (LoAs), etc.

2.9 The individual action plans should be shared with the ICAO MID Office for consolidation under the ICAO MID Region Project 30/10 roadmap and subsequent review by the ATM SG for further actions.

2.10 The meeting may wish to note that MIDANPIRG Conclusion 22/11 did not clearly specify that the separation minima would be applicable to the reduction of separation to 30 NM. Accordingly, ATM SG/11 proposed the following draft Conclusion to supersede MIDANPIRG Conclusion 22/11 for better clarity.

DRAFT CONCLUSION 23/X: IMPLEMENTATION OF REDUCED LONGITUDINAL SEPARATION IN THE MID REGION

That,

a) States, that have not yet done so:

i. be urged to implement reduction of longitudinal separation where appropriate:

- *reduce longitudinal separation down to 10 NM; where ATS surveillance service is provided, and*
- *reduce longitudinal separation minimum subject to PANS ATM Chapter 5, 5.4.2.2, 5.4.2.3, 5.4.2.4, 5.4.2.6 & 5.4.2.9; where ATS surveillance service is not provided, and*

ii. be invited to agree with their adjacent FIRs/States on the date of implementation and updating of the LoAs.

b) the ASM Working Group to:

i. monitor the progress of implementation and undertakes necessary measures to promote its advancement.

ii. develop Guidance Material to implement the different method of separation mentioned in PANS ATM Chapter 5, 5.4.2.2, 5.4.2.3, 5.4.2.4, 5.4.2.6 & 5.4.2.9.

ASM- FF-ICE Roadmap

2.11 The meeting may wish to recall that MIDANPIRG/22 provided the following direction to the Airspace Management Working Group (ASM WG):

> *"The meeting noted that the operational aspects of FF-ICE are currently being addressed by the ASM WG under the ATM Sub-Group. Given the complexities related to system implementation, the meeting agreed that a dedicated multidisciplinary FF-ICE Implementation Task Force, composed of members from AIM, ATM, and CNS SGs, might be established."*

2.12 The meeting may wish to note that a joint FF-ICE Workshop was conducted in conjunction with the ATM SG/11 and CNS SG/14 meetings, with the objective of enhancing common awareness and addressing implementation constraints related to the development of a regional transition plan. The workshop provided a detailed overview of FF-ICE implementation, as follows:

a) FF-ICE Concept and related provisions (PPT/24)
b) IATA perspective related to FF-ICE implementation (PPT/35)
c) EUROCONTROL - NM Experience in FF-ICE implementation (PPT/36)
d) EUROCONTROL - Understanding FF-ICE through Scenarios (PPT/37)
e) FF-ICE Regulatory Requirements, Template, ASBU Enablers, Dependencies and Relations (PPT/41).

2.13 Based on the above, the ASM WG established an FF-ICE Action Group to assess the operational needs for FF-ICE implementation in the MID Region. In this regard, the Action Group reviewed the prerequisites for FF-ICE implementation in relation to other ASBU elements and enablers, in accordance with ICAO Doc 9750 (GANP), 8th Edition. The review also considered the status of FF-ICE elements and other related dependencies within Blocks 0, 1, and 2, in line with the preliminary Air Navigation Report – 2025, as presented in **Appendix D**.

ASM-Delineation of FIR/SRR description in MID ANP Volume I

2.14 The meeting may wish to recall the MIDANPIRG/20 Conclusion 20/13 as follows:

MIDANPIRG CONCLUSION 20/13: PROPOSAL FOR AMENDMENT TO THE MID eANP VOLUME I, TABLES ATM I-1 MID REGION FLIGHT INFORMATION REGIONS (FIRS)/UPPER INFORMATION REGIONS (UIRS) AND SAR I-1 MID REGION SEARCH AND RESCUE REGIONS (SRRS)

That, the ICAO MID Office coordinate with the States concerned and process Proposal(s) for Amendment to the MID ANP Vol I, Tables ATM I-1 MID Region Flight Information Regions (FIRs)/ Upper Information Regions (UIRs) and SAR I- 1 MID Region Search and Rescue Regions (SRRs) in accordance with standard procedure.

2.15 Accordingly, the ASM Working Group conducted the necessary follow-up with States, urging them to conduct coordination meetings with all adjacent States to validate the common FIR coordinates and descriptions, thereby ensuring a complete and coherent delineation of the FIR/SRR prior to the submission of the PfA in accordance with the guideline at **Appendix E**. The latest status of FIR/SRR description in State AIPs and MID ANP Volume I is presented in the following table:

States	States AIP	ANP Volume I FIR	ANP Volume I SRR	Remark
Bahrain	ENR 2.1	Not published	Not published	Bahrain & Saudi Arabia PfA FIRSRR-MID Basic ANP 13.03-ATM-SAR is on-hold since 2013
Egypt	ENR 2.1	Not published	Not published	Egypt and Saudi Arabia developed a Joint PfA that does not encompass the entirety of the Cairo and Jeddah FIR/SRRs.
Iran	ENR 2.1	Not published	Not published	
Iraq	Not published	Not published	Not published	
Jordan	ENR 2.1	Not published	Not published	
Kuwait	ENR 2.1	Not published	Not published	
Lebanon	ENR 2.1	Not published	Not published	
Libya	ENR 2.1	Published	Published	PfA MID-I-2401 Approved by President of the ICAO Council. 14 November 2024
Oman	ENR 2.1	Not published	Not published	
Qatar	ENR 2.1	Published	Published	C-DEC 225/10 11 March 2022
Saudi Arabia	ENR 2.1	Not published	Not published	Bahrain & Saudi Arabia PfA FIRSRR-MID Basic ANP 13.03-ATM-SAR is on-hold since 2013. Egypt and Saudi Arabia developed a Joint PfA that does not encompass the entirety of the Cairo and Jeddah FIR/SRRs.
Sudan	ENR 2.1	On-going	On-going	The Sudan and South Sudan Task Force (SSS TF) is addressing the matter. A draft PfA, AFI/MID ANP 18/02 – ATM/SAR, has been agreed upon and the formal process has been initiated.
Syria	ENR 2.1	Not published	Not published	
UAE	ENR 2.1	Not published	Not published	
Yemen	ENR 2.1	Not published	Not published	

ASM-Regional ATM Contingency Framework (RACF).

2.16 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 light of experience gained with applying contingency measures in various parts of the world and differing circumstances.

2.17 The RACF establishes guidelines to ensure the safe and orderly flow of international air traffic across the ICAO MID Region in the event of disruptions to ATS or associated supporting services, while maintaining the availability of major routes under such conditions. This document is intended to replace and supersede the MID Region ATM Contingency Plan (MID Doc 003).

2.18 The RACF describes the regional contingency framework, including the arrangements and procedures to support effective regional collaboration, minimize the impact of disruption, and ensure the continued safety of flight operations, in accordance with the provisions of Annex 11—Air Traffic Services.

2.19 Implementing the regional framework is mainly to prepare the region to respond to and manage contingency events effectively. States are responsible for ensuring they comply with the ICAO provisions concerning contingency and emergency planning and implementation.

2.20 The draft guideline, initially developed by ICAO based on experience gained from implementing contingency measures under various operational conditions worldwide, aims to address contingency situations in a more agile and harmonized manner. The draft was extensively reviewed during the ICAO APAC/MID ATM Contingency Planning Workshop and the MID Region ATM Contingency Framework Workshop. The outcomes of both workshops, together with consultations with States, were finalized during the Global Regional ATM Contingency Framework meeting, as presented in **Appendix E**.

2.21 Based on the above, the meeting may wish to agree on the following Draft Conclusion:

DRAFT CONCLUSION 23/X: MID REGION ATM CONTINGENCY FRAMEWORK.

That,

a) MID Region ATM Contingency Framework endorsed and superseded MID region ATM Contingency Plan (ICAO MID Doc 003); and

b) States are required to develope or amend their ATM Contingency Plan in line with RACF.

Air Traffic Flow Management (ATFM)

2.22 The meeting may wish to recall that MID ATFM Plan Version 2 was endorsed by the MIDANPIRG/19 meeting through Conclusion 19/14. In accordance with this plan, the implementation of ATFM is to be carried out in the following phases:

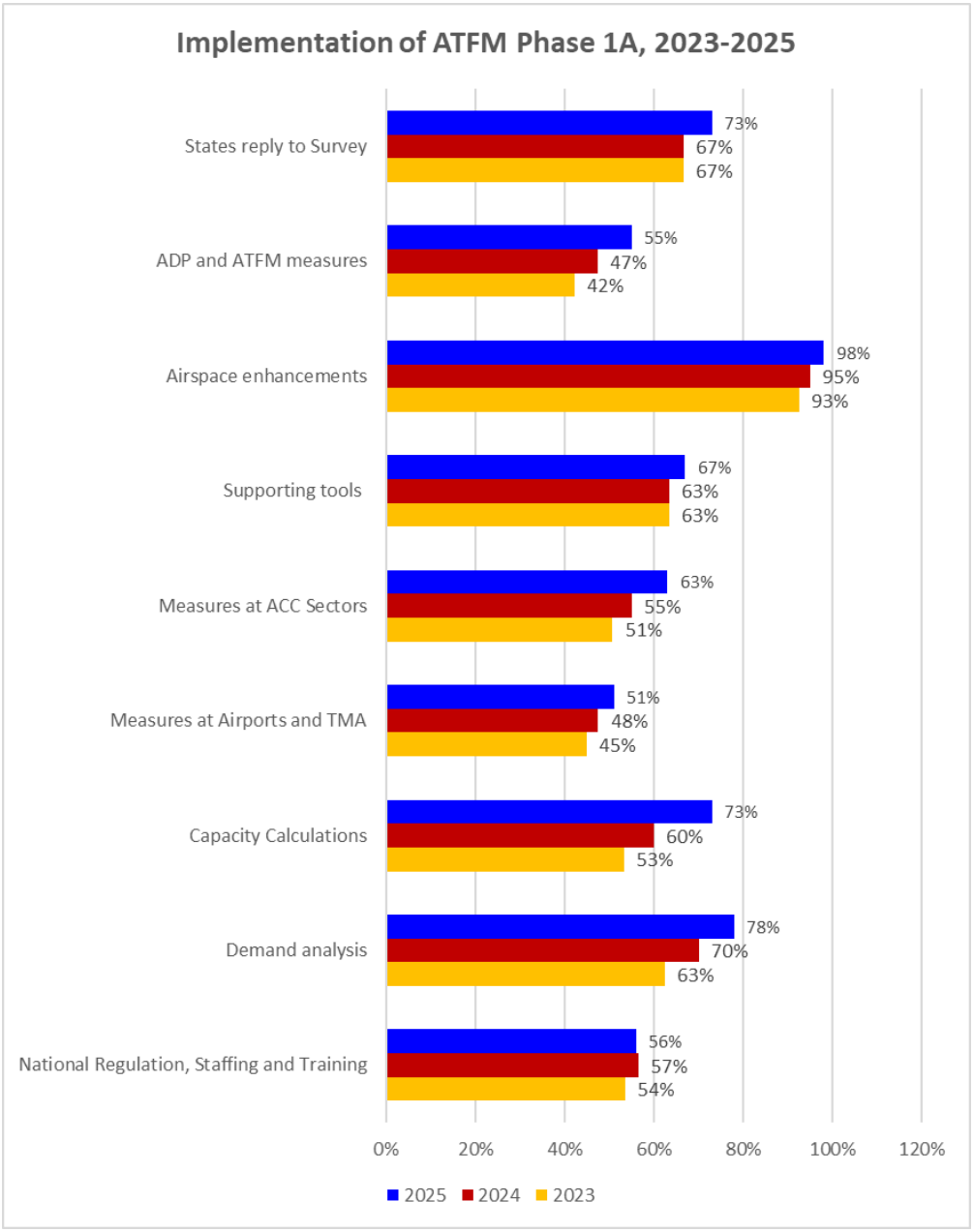
a) REGIONAL ATFM CAPABILITY PHASE I (2 years)

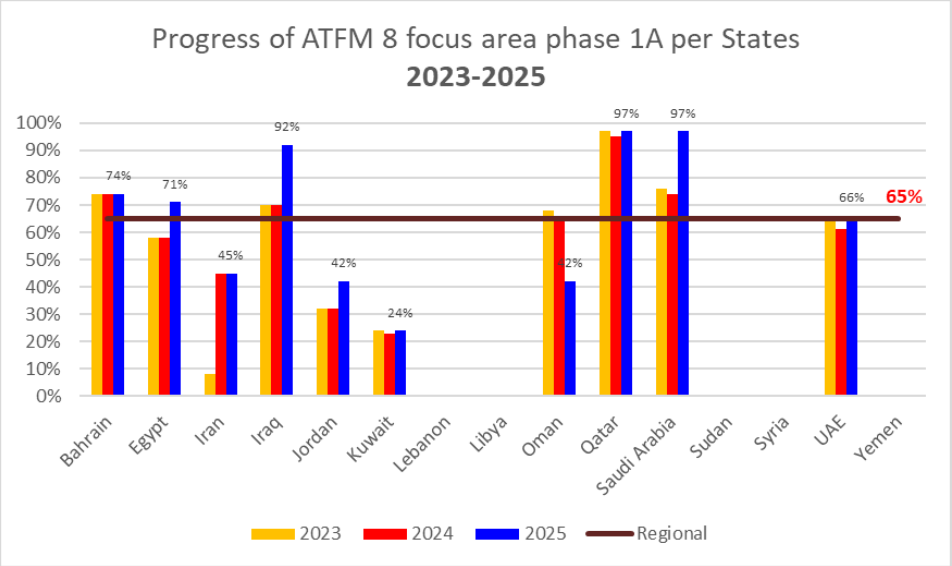
   i. PHASE IA (Expected implementation duration, 1 year);

   ii. PHASE IB (Expected implementation duration, 1 year); and

b) REGIONAL ATFM CAPABILITY PHASE II (3 years).

2.23 Based on the latest survey conducted by the ATFM Task Force, the level of implementation of ATFM Phase 1A in the MID Region, in accordance with the criteria set out in ICAO MID Doc 014, has reached **65%**, as illustrated in the following chart:

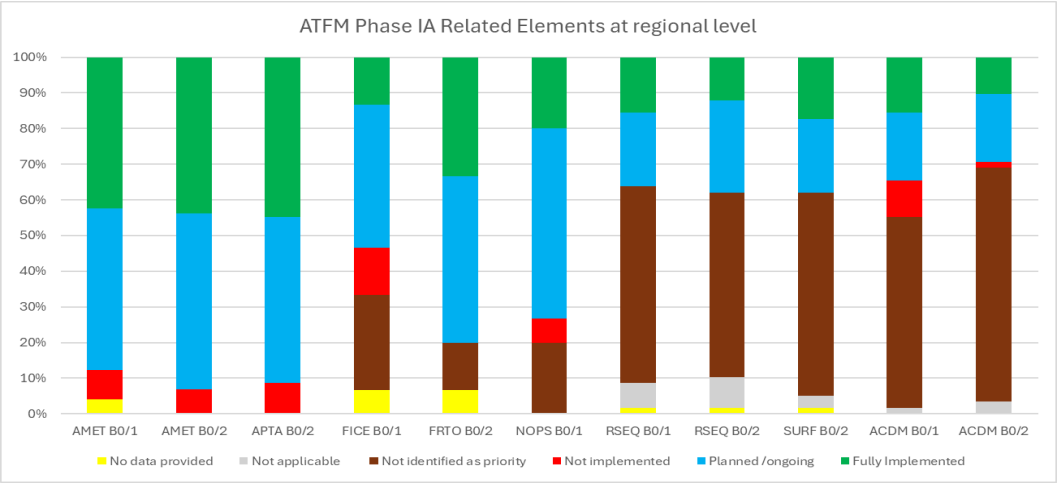

Implementation of ATFM Phase 1A, 2023-2025
States reply to Survey
73%
67%
67%
ADP and ATFM measures
55%
47%
42%
Airspace enhancements
98%
95%
93%
Supporting tools
67%
63%
63%
Measures at ACC Sectors
63%
55%
51%
Measures at Airports and TMA
51%
48%
45%
Capacity Calculations
73%
60%
53%
Demand analysis
78%
70%
63%
National Regulation, Staffing and Training
56%
57%
54%
0%
20%
40%
60%
80%
100%
120%
2025
2024
2023



2.24 The meeting may wish to note that based on ICAO MID Doc 014 the following ASBU elements related to implementation of ATFM Phase 1A are monitored at the regional level.

a) AMET B0/1: Meteorological observations products
b) AMET B0/2: Meteorological forecast and warning products
c) APTA B0/2: PBN SID and STAR procedures (with basic capabilities)
d) FICE B0/1: AIDC/OLDI
e) FRTO B0/2: FUA
f) NOPS B0/1: Initial integration of collaborative airspace with ATFM
g) RSEQ B0/1: Airspace Management
h) RSEQ B0/2: Departure Management
i) SURF B0/2: comprehensive situational awareness of surface operations
j) ACDM B0/1: Airports CDM information sharing
k) ACDM B0/2: integration with ATM network function

2.25 Based on the preliminary Air Navigation Report – 2025, the level of implementation of ATFM ASBU elements, along with their associated dependencies related to Phase IA, is illustrated in the following chart:



2.26 In view of the significant variability in Air Traffic Flow Management (ATFM) requirements across the MID Region—comprising 15 States and 58 international airports—the ATFM Task Force proposed an amendment to ICAO MID Doc 014 to align with the latest ICAO provisions, particularly the Global Air Navigation Plan (GANP), 8th Edition. The proposal aims to establish a clearly defined ATFM applicability area within the MID Region. This designated scope would be subject to regional monitoring and oversight to ensure the effective, harmonized, and coordinated implementation of ATFM requirements.

2.27 Based on the above, the meeting may wish to agree on the following Draft Conclusion:

DRAFT CONCLUSION 23/X: MID ATFM PLAN WITH APPLICABILITY AREA

That,

a) ATFM Task Force revise the current MID ATFM Plan (ICAO MID Doc 014) to be in line with ICAO latest provisions;

b) define applicability area in the MID region; and

c) develop required draft PfA to the MID ANP Volume II, to include implementation of ATFM as a requirement in the MID Region per applicability area.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the progress achieved in optimizing the MID region ATS route designators and agree on the way forward as outlined in paragraph 2.2;

b) note the progress made in addressing MID Region ATS Route Designator challenges through the implementation of approved PfAs;

c) note the progress achieved in the removal of the ATS Route prefix “U” and encourage the remaining State(s) to complete this activity;

d) note the progress achieved in the development of the roadmap related to Project 30/10 and agree on the way forward as outlined in paragraph 2.27;

e) ngree on the Draft Conclusion related to Project 30/10 to supersede MIDANPIRG Conclusion 22/11;

f) note the analysis provided by the ASM Working Group related to the FF-ICE Roadmap and consider it for further decision-making;

g) note the progress achieved in the delineation of FIR/SRR descriptions in MID ANP Volume I and encourage States to conduct coordination meetings with all adjacent States to validate common FIR coordinates and descriptions;

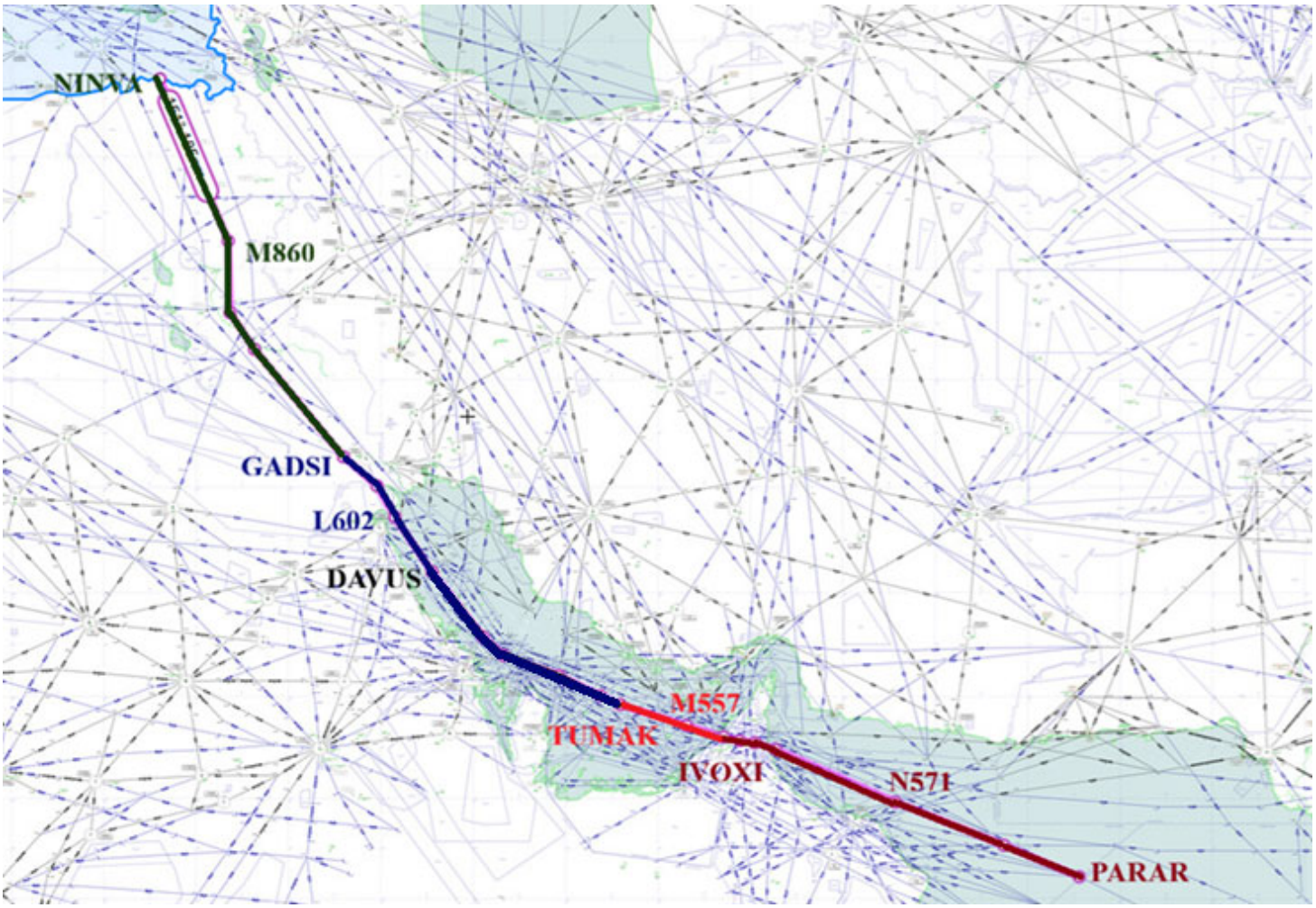
h) note the progress achieved in the development of the Regional ATM Contingency Framework and agree on the Draft Conclusion; and

i) note the analysis provided by the ATFM Task Force and agree on the Draft Conclusion.

APPENDIX A

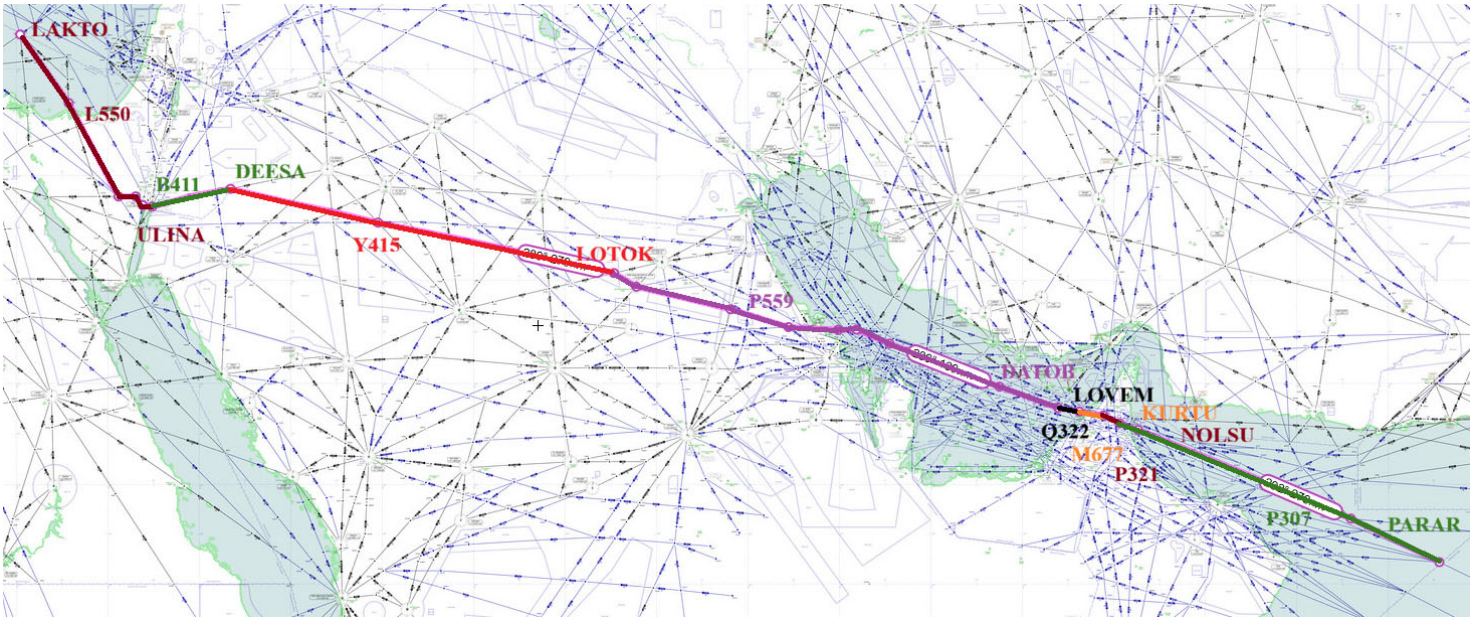
1- PARAR (Muscat/Mumbai) - N571 – MENSA (Muscat/UAE) – N571 - IVOXI (UAE) – M557 – TUMAK (UAE/Bahrain/Doha) - N702 – DAVUS (Bahrain/Kuwait) – L602 – TASMI (Kuwait/Baghdad) – L602 – GADSI – M860 – NINVA.

Route designator was changed 4 times.
Note: L602 and M860 do not belong to MID, proposing to change designator to M557



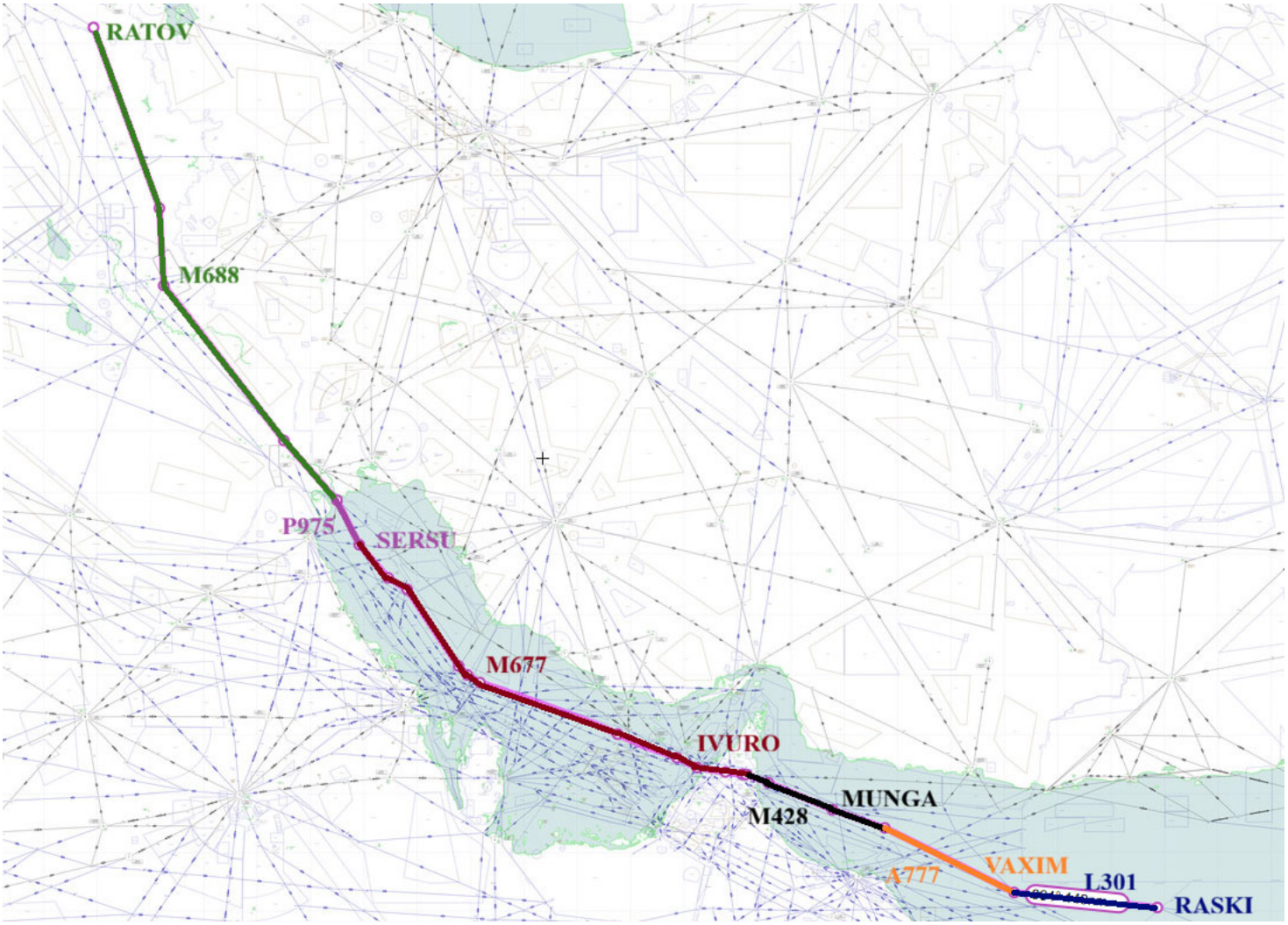
2- LAKTO (Cairo/Nicosia) – L550 – ULINA (Cairo/Amman) – B411 – DEESA (Amman/Jeddah) – Y415 – LOTOK (Jeddah) – P559 – DATOB (UAE) – Q322 LOVEM (UAE) – M677 – KURTU (UAE) – P321 – NOLSU (UAE) – P307 – PARAR (Muscat/Mumbai)

Route designator was changed 8 times.



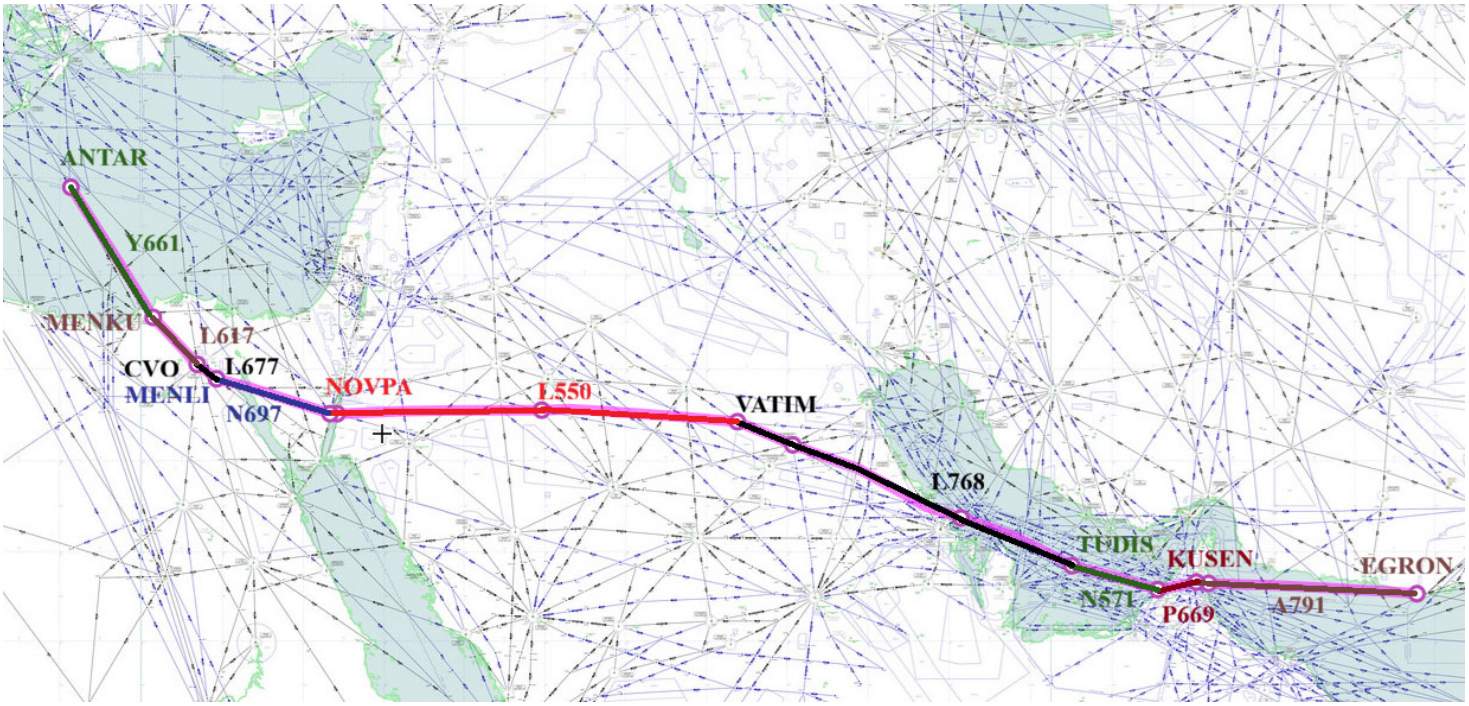
3- RATOV (Ankara/Baghdad) - M688 – SIDAD (Baghdad/Kuwait) – P975 – SERSU (Kuwait) – M677 – IVURO (UAE) – M428 – MUNGA (Muscat) – A777 – VAXIM (Muscat) – L301 – RASKI (Muscat/Mumbai).

Route designator was changed 6 times.



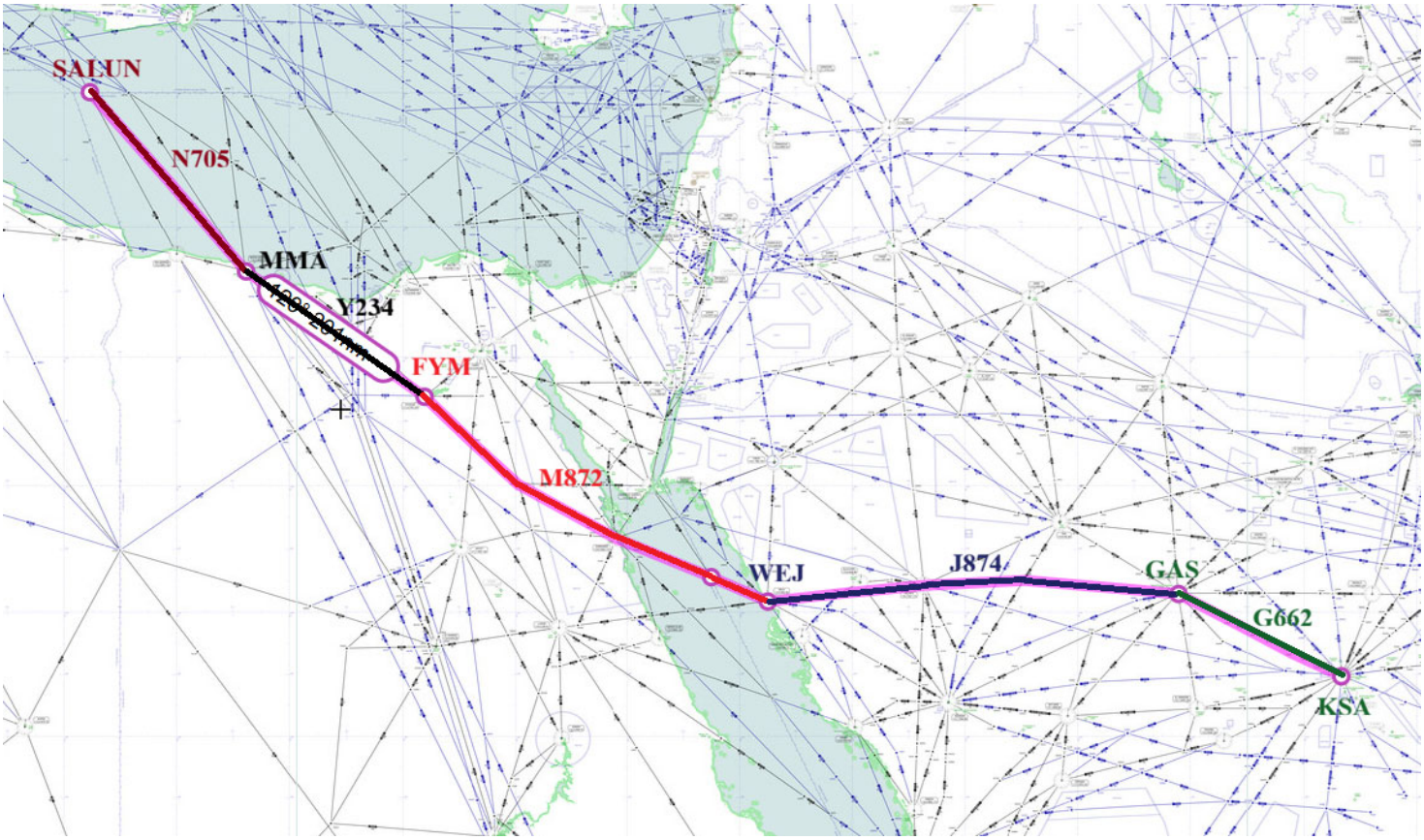
4- EGRON (Karachi/Tehran) - A791 – KUSEN (Muscat/UAE) – P669 – TUDIS (UAE) -N571 – ALPOB (UAE/Bahrain/Doha) L768 - VATIM (Jeddah) - L550 - NOVPA (Cairo) - N697 – MENLI (Cairo) - L677 - CVO (Cairo) - L617 - MENKU (Cairo) - Y661 – ANTAR (Cairo/Athens).

Route designator was changed 9 times.



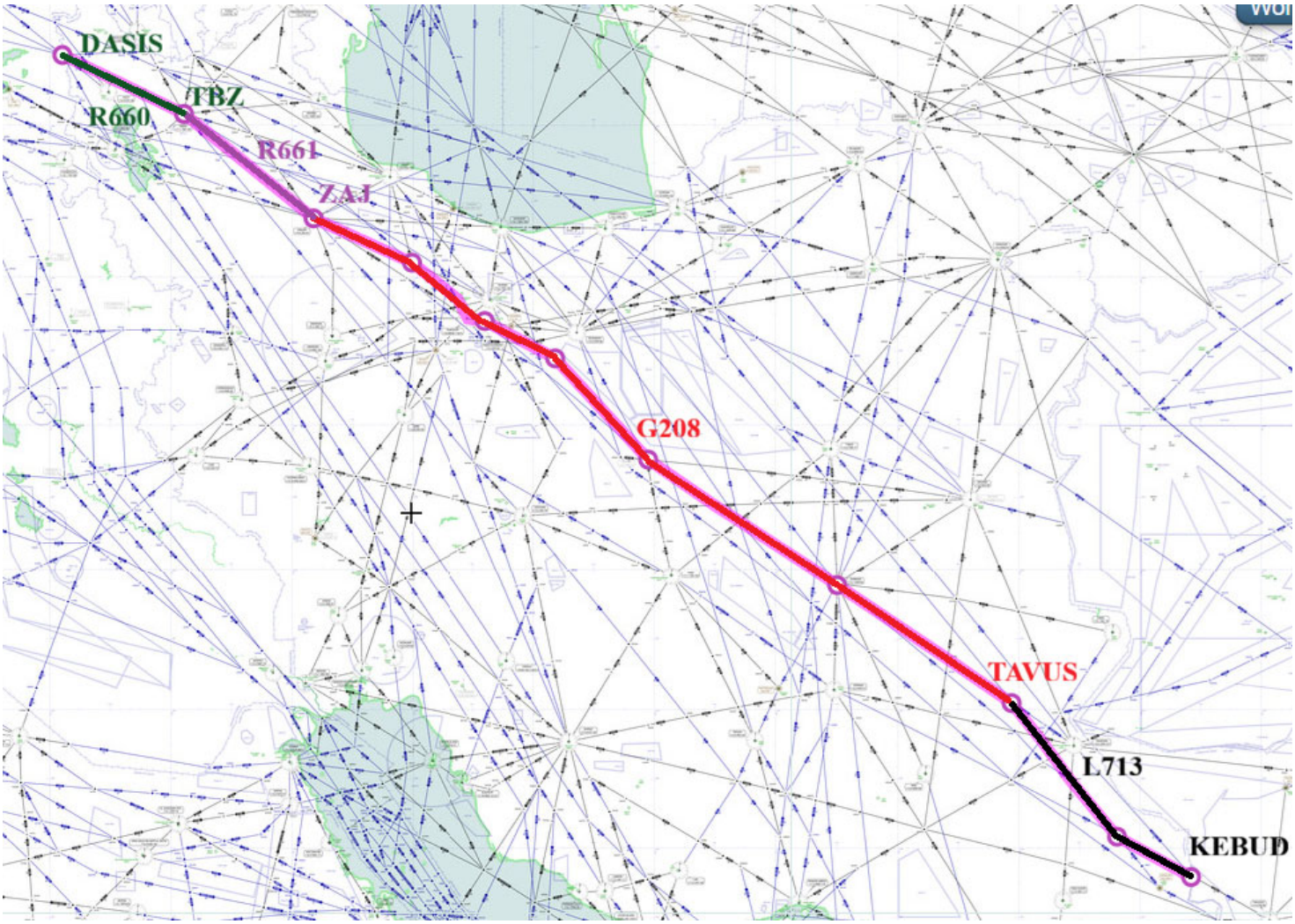
5- SALUN (Athens/Cairo) - N705 – MMA (Cairo) – Y234 - FYM (Cairo) - M872 - WEJ (Jeddah) - J874 - GAS (Jeddah) - G662 – KSA (Jeddah).

Route designator was changed 5 times.



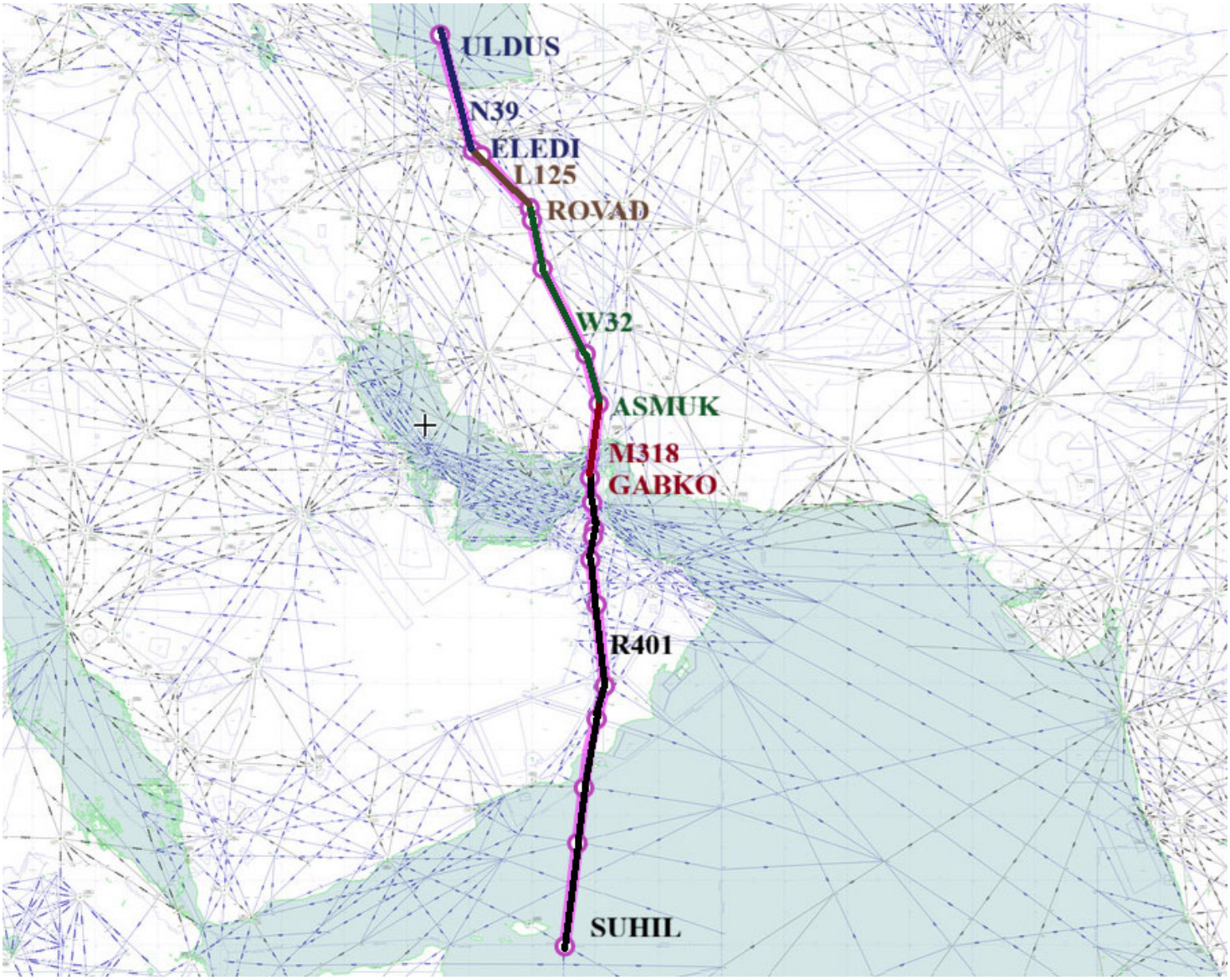
6- KEBUD (Karachi/Tehran) - L713 – TOVUS (Tehran) - G208 - ZAJ (Tehran) - R661 - TBZ (Tehran) - R660 DASIS (Tehran/Ankara).

Route designator was changed 4 times.



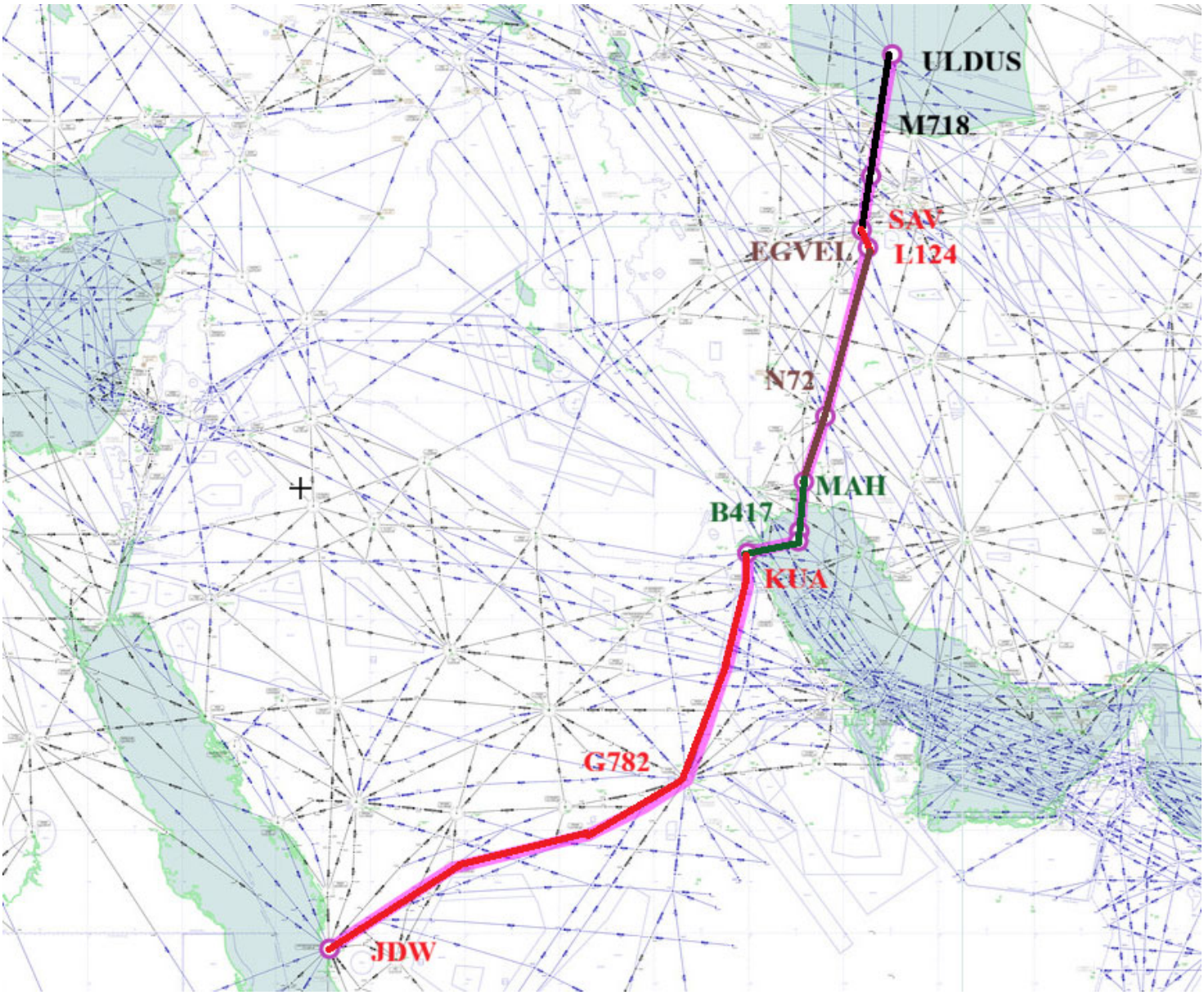
7- SUHIL (Mogadishu/Sana'a) - R401 - GABKO (UAE/Tehran) – M318 – ASMUK (Tehran) – W32 – ROVAD (Tehran) – L125 – ELEDI (Tehran) – N39 – ULDUS (Tehran/Baku).

Route designator was changed 5 times.



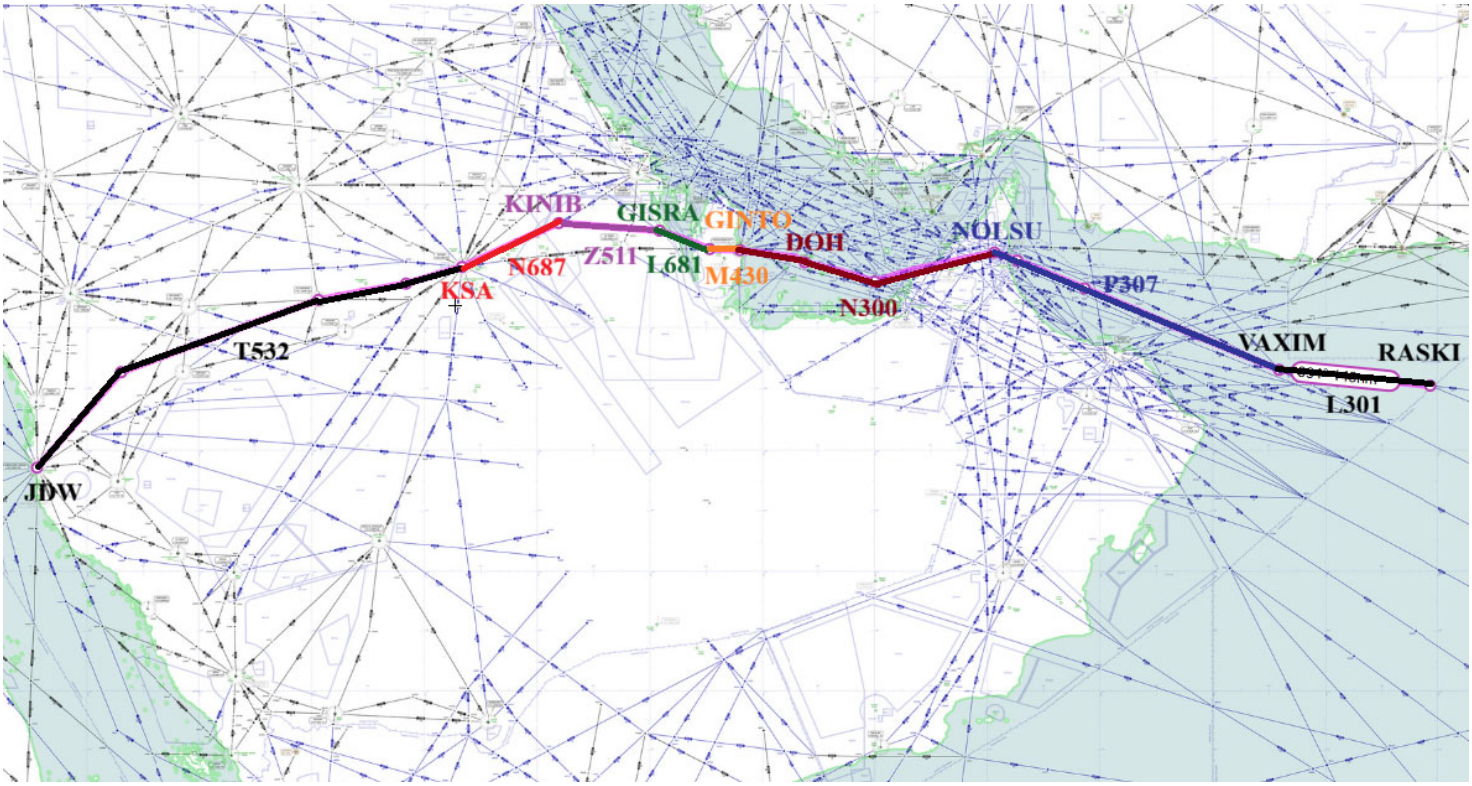
8- ULDUS (Baku/Tehran) - M718 - SAV (Tehran) - L124 - EGVEL (Tehran) - N72 - MAH (Tehran) - B417 - KUA (Kuwait) - G782 – JDW (Jeddah).

Route designator was changed 5 times.



9- JDW (Jeddah) - T532 - KSA (Jeddah) - N687 - KINIB (Jeddah) - Z511 – GISRA (Jeddah) - L681 – GINTO (Doha) – M430 – DOH (Doha) - N300 – NOLSU (UAE) - P307 – VAXIM (Muscat) – L301 – RASKI (Muscat/Mumbai).

Route designator was changed 8 times.



Current status of longitudinal separation, direction and number of traffic per day at common FIR boundaries

Bahrain	Iran							Kuwait					Qatar													Saudi Arabia							UAE			
	ROTOX	OBTAR	KUVER	ALSER	DASUT	MIDSI	RAGAS	KUMBO	DAVUS	LONOS	RABAP	AMBIK	TULUB	KINID	LUBET	IMLAD	GEXIM	GIRMO	GESIT	IMKOM	KARUG	OBROS	EGNIM	BORUK	ASROK	DAROR	METLA	ULADA	ROTEL	LADNA	NARMI	DEMTA	TUMAK	ALPOB	NALPO	OBNET
Separation	20	20	20	20	20	20	20	10	20	10	10	10	8	8	8	8	8	8	8	8	8	10	20	8	8	10	10	10	10	10	10	10	8	8	8	8
Direction	1	1	2	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	2	2	1	1	1	1
From	BAH	BAH		IRN	BAH	IRN	BAH	BAH	BAH	KWT	KWT	KWT	BAH			QTR	BAH	BAH	BAH	BAH	BAH	QTR	QTR	BAH	BAH	KSA		BAH	KSA				UAE	UAE	BAH	BAH
No Traffic per day	1	1	1	7	18	13	5	49	267	124	180	1	7	167	141	48	99	92	43	6	1	30	2	3	0	188	1	178	17	44	1	1	280	192	180	200

Egypt	Cyprus			Greece						Jordan	Libya		Saudi Arabia								Sudan				
	RASDA	LAKTO	PASOS	SALUN	METRU	TANSA	PAXIS	ANTAR	KUMBI	ULINA	LOSUL	DITAR	KITIT	PASUM	IMRID	GIBEL	DEDLU	SIKNO	SEPSA	KUSPA	ALEBA	ENABU	ATMUL	NUBAR	SISID
Separation	20	20	20	20	20	20	20	20	20	15	80	80	15	15	15	15	15	15	15	15	80	80	80	80	80
Direction	2	2	2	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1			2	2	2	2	1
From				GRE	EGP	EGP	GRE	EGP	GRE							KSA	EGP	EGP							SUD
No Traffic per day	174	73	12	73	124	122	60	166	52	172	15	24	127	120	34	36	60	126	0	0	14	1	1	1	1

Iran	Afghanistan				Armenia	Azerbaijan					Iraq			Bahrain							Kuwait			Oman					Pakistan						Qatar				Türkiye						Turkmenistan						UAE				
	PAMTU	RANRU	SOKAM	KAMAR	MAGRI	BATEV	ULDUS	LALDA	PARSU	DULAV	PAXAT	RAGET	BOXIX	ROTOX	OBTAR	KUVER	ALSER	DASUT	MIDSI	RAGAS	TULAX	NANPI	PATIR	DENDA	IMLOT	MESPO	ULDUN	IVIVA	PIRAN	KEBUD	DERBO	ASVIB	EGRON	METBI	DASTU	MIDSI	RAGAS	ELIDU	AGINA	DASIS	TESVA	BONAM	ALRAM	LUMOM	GIRUN	RIKOP	ORPAB	NAZAR	OTRUZ	DEBER	GABKO	PATAT	ORSAR	SIR	DAPER
Separation	120	120	120	120	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	50	50	50	20	20	50	50	50	50	50	50	20	10	20	20	20	20	20	20	20	20	50	50	50	50	50	50	20	20	10	20	20
Direction	2	2	2	2	2	2	2	2	2	2	1	1	2	1	1	2	1	1	1	1	2	2	1	2	2	2	2	1	2	2	2	2	2	2	1	1	1	1	2	2	1	2	2	1	2	2	2	2	2	2	1	1	2	1	2
From											IRQ	IRN		BAH	BAH		IRN	BAH	IRN	BAH			KWT					OMN							QTR	IRN	QTR	IRN			IRN			TUK							UAE	IRN		IRN	
No Traffic per day	5	12	2	1	20	43	74	4	6	3	36	43	2	1	1	1	7	18	13	5	20	16	1	16	10	43	1	1	5	27	31	105	10	16	18	50	36	8	45	112	15	122	18	7	5	37	4	44	1	1	214	186	172	3	1

Iraq	Iran			Jordan	Kuwait		Saudi Arabia	Syria			Türkiye		
	PAXAT	RAGET	BOXIX	PASIP	SIDAD	TASMI	MURIB	MODIK	SIDNA	ELEXI	NINVA	KABAN	RATOV
Separation	20	20	20	80	10	20	10	80	80	80	20	20	20
Direction	1	1	2	2	1	1	2	2	1	1	1	1	1
From	IRQ	IRN			IRQ	KWT			SUR	IRQ	IRQ	IRQ	TUR
No Traffic per day	36	43	2	15	316	374	14	21	1	1	198	129	294

Jordan	Egypt	Iraq	Israel		Saudi Arabia							Syria				
	ULINA	PASIP	OSAMA	MOUAB	TRF	DEESA	GIBET	TULEP	GENEX	OTILA	SODAR	BUSRA	ZELAF	SOKAN	NAMBO	KAMEL
Separation	15	80	10	10	10	10	10	10	10	10	10	80	80	80	80	80
Direction	2	2	1	1	2	2	2	1	1	1	2	2	2	1	2	2
From			ISR	JRD				JRD	KSA	KSA				JRD		
No Traffic per day	172	15	52	6	23	157	18	62	17	17	4	5	23	22	2	1

Kuwait	Bahrain					Iran			Iraq		Saudi Arabia					
	KUMBO	DAVUS	LONOS	RABAP	AMBIK	TULAX	NANPI	PATIR	SIDAD	TASMI	BOSID	GOVAL	DERKO	COPPI	RAS	IVOBA
Separation	10	20	10	10	10	20	20	20	10	20	20	20	20	20	20	20
Direction	1	1	1	1	1	2	2	1	1	1	2	1	1	1	2	1
From	BAH	BAH	KWT	KWT	KWT			KWT	IRQ	KWT		KWT	KSA	KWT		KSA
No Traffic per day	49	267	124	180	1	20	16	1	316	374	4	13	18	9	4	11

Lebanon	Cyprus					Syria	
	LITAN	ELIKA	DIRRE	KUKLA	BALMA	LEBOR	LATEB
Separation	30	30	30	30	30	80	80
Direction	2	2	1	2	2	2	2
From			CYP				
No Traffic per day	1	1	1	1	9	11	1

Libya	Algeria	Chad				Egypt		Malta											Sudan	Tunis		
	IMN	DEKTU	TUMMO	GARIN	TONBA	LOSUL	DITAR	ABRAM	SARKI	VARIG	LUMED	LOTIN	ELIMO	INDOT	OLMAX	BONAR	EKLIS	RASNO	ORNAT	GASRI	TANLI	FARES
Separation	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Direction	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
From								MAL	LIB	MAL	LIB	MAL	MAL	LIB	LIB	MAL						
No Traffic per day	2	2	1	1	1	15	24	2	2	3	2	2	2	2	1	2	5	2	1	11	3	1

Oman	India						Iran					Pakistan			Saudi Arabia						UAE															Yemen						
	RASKI	PARAR	TOTOX	REXOD	LOTAV	KITAL	DENDA	IMLOT	MESPO	ULDUN	IVIVA	APELO	TAPDO	ALPOR	MIDGU	TOKRA	DAPOL	SITOL	IMDAM	GOBRO	LALDO	GOMTA	TONVO	MENSA	PASOV	SOLUD	TAPRA	TARDI	MUSAP	ITRAX	LABRI	RETAS	SODEX	MEMTU	LUDID	KIVEL	IMKAD	KAPET	PUTRA	SABEL	KUTVI	BOVOS
Separation	20	20	50	50	50	50	50	50	50	20	20	40	40	40	20	20	20	20	20	20	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	80	80	80	80	80	50	50
Direction	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
From											OMN	OMN	PAK	OMN	KSA	OMN	KSA	OMN	KSA			UAE	UAE	OMN	OMN	OMN	OMN	UAE	OMN	OMN	UAE	UAE	OMN	UAE	OMN							
No Traffic per day	286	175	146	94	97	61	16	10	43	1	1	234	62	54	46	3	20	5	2	12	81	105	72	138	118	10	30	44	47	11	152	186	6	41	42	11	48	8	1	1	5	11

Qatar	Bahrain													Iran				Saudi Arabia				UAE										
	TULUB	KINID	LUBET	IMLAD	GEXIM	GIRMO	GESIT	IMKOM	KARUG	OBROS	EGNIM	BORUK	ASROK	DASUT	MIDSI	RAGAS	ELIDU	ULIKA	ORLEK	LAEEB	DATRI	BUNDU	KUPRO	TOSNA	OVONA	TOVOX	ALPOB	TUMAK	ORMID	ASTOG	NALPO	OBNET
Separation	8	8	8	8	8	8	8	8	8	10	20	8	8	20	10	20	20	10	10	10	10	8	8	8	8	8	8	8	8	8	8	8
Direction	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1
From	BAH			QTR	BAH	BAH	BAH	BAH	BAH	QTR	QTR	BAH	BAH	QTR	IRN	QTR	IRN	QTR	KSA	KSA		QTR	QTR		UAE	UAE	UAE	UAE	UAE	QTR	QTR	QTR
No Traffic per day	7	167	141	48	99	92	43	6	1	30	2	3	0	18	50	36	8	8	4	1	1	3	3	40	54	6	192	280	51	1	180	200

Saudi Arabia	Bahrain							Egypt								Eritrea		Iraq	Jordan							Kuwait						Oman						Qatar				Sudan			UAE				Yemen									
	DAROR	METLA	ULADA	ROTEL	LADNA	NARMI	DEMTA	KITIT	PASUM	IMRID	GIBEL	DEDLU	SIKNO	SEPSA	KUSPA	RASKA	KOBAS	MURIB	TRF	DEESA	GIBET	TULEP	GENEX	OTILA	SODAR	BOSID	GOVAL	DERKO	COPPI	RAS	IVOBA	MIDGU	TOKRA	DAPOL	SITOL	IMDAM	GOBRO	ULIKA	ORLEK	LAEEB	DATRI	MIPOL	KAROX	GIBAP	MUXIT	TANSU	RIBOT	PEKEM	DUDRI	SILPA	ALNES	PADUR	ALSIR	NADKI	ULBON	NETAS	NOBSU	NABAN
Separation	10	10	10	10	10	10	10	15	15	15	15	15	15	15	15	80	80	10	10	10	10	10	10	10	10	20	20	20	20	20	20	20	20	20	20	20	20	10	10	10	10	80	80	80	20	20	20	20	80	80	80	80	80	80	80	80	80	80
Direction	1	2	1	1	2	2	2	2	2	2	1	1	1			2	2	2	2	2	2	1	1	1	2	2	1	1	1	2	1	1	1	1	1	1	2	1	1	1	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
From	KSA		BAH	KSA							KSA	EGP	EGP									JRD	KSA	KSA			KWT	KSA	KWT		KSA	KSA	OMN	KSA	OMN	KSA		QTR	KSA	KSA		SUD	KSA															
No Traffic per day	188	1	178	17	44	1	1	127	120	34	36	60	126	0	0	136	1	14	23	157	18	62	17	17	4	4	13	18	9	4	11	46	3	20	5	2	12	8	4	1	1	3	2	1	1	8	5	18	1	1	1	2	2	3	1	1	1	1

Sudan	Congo	Chad							Egypt					Eritrea			Ethiopia						Libya	Kenya	Uganda			Saudi Arabia		
	ASKON	IPONO	GNA	ILBIB	KISAL	KURAM	MONAN	KAFIA	ALEBA	ENABU	ATMUL	NUBAR	SISID	TOKAR	FEREB	KSL	ALRAP	TIKAT	AVONO	DASTU	AXOTI	DAGAP	ORNAT	EPLAS	ATUGA	OVELA	KABLA	MIPOL	KAROX	GIBAP
Separation	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Direction	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2

From													SUD															SUD	KSA	
No Traffic per day	20	1	1	1	1	1	1	30	14	1	1	1	1	1	1	1	15	1	1	1	1	1	1	1	5	1	1	3	2	1

Syria	Cyprus	Iraq			Jordan					Lebanon		Türkiye			
	NIKAS	MODIK	SIDNA	ELEXI	BUSRA	ZELAF	SOKAN	NAMBO	KAMEL	LEBOR	LATEB	TUSYR	TUNLA	NISAP	LESRI
Separation	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Direction	2	2	1	1	2	2	1	2	2	2	2	2	1	1	2
From			SYR	IRQ			JRD						TUR	SYR	
No Traffic per day	1	21	1	1	5	23	22	2	1	11	1	1	1	1	1

UAE	Iran					Oman														
	GABKO	PATAT	ORSAR	SIR	DAPER	LALDO	GOMTA	TONVO	MENSA	PASOV	SOLUD	TAPRA	TARDI	MUSAP	ITRAX	LABRI	RETAS	SODEX	MEMTU	LUDID
Separation	20	20	10	20	20	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
Direction	1	1	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1
From	UAE	IRN		IRN			UAE	UAE	OMN	OMN	OMN	OMN	UAE	OMN	OMN	UAE	UAE	OMN	UAE	OMN
No Traffic per day	214	186	172	3	1	81	105	72	138	118	10	30	44	47	11	152	186	6	41	42

UAE	Qatar											Saudi Arabia				Bahrain			
	BUNDU	KUPRO	TOSNA	OVONA	TOVOX	ALPOB	TUMAK	ORMID	ASTOG	NALPO	OBNET	MUXIT	TANSU	RIBOT	PEKEM	TUMAK	ALPOB	NALPO	OBNET
Separation	8	8	8	8	8	8	8	8	8	8	8	20	20	20	20	8	8	8	8
Direction	1	1	2	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1
From	QTR	QTR		UAE	UAE	UAE	UAE	UAE	QTR	QTR	QTR					UAE	UAE	BAH	BAH
No Traffic per day	3	3	40	54	6	192	280	51	1	180	200	1	8	5	18	280	192	180	200

Yemen	India			Eritrea		Ethiopia		Oman						
	GIDAS	NABIL	ANGAL	SALEH	FARES	TORBA	PARIM	KIVEL	IMKAD	KAPET	PUTRA	SABEL	KUTVI	BOVOS
Separation	80	80	80	80	80	80	80	80	80	80	80	80	50	50
Direction	2	2	2	2	2	2	2	2	2	2	2	2	2	2
From														
No Traffic per day	1	1	21	1	1	28	5	11	48	8	1	1	5	11

Yemen	Saudi Arabia														Somalia						
	DUDRI	SILPA	ALNES	PADUR	ALSIR	NADKI	ULBON	NETAS	NOBSU	NABAN	NISMI	LAKNA	RIBOK	APDOS	OKTAB	ZIZAN	TIMAD	DEMGO	BOMIX	VEDET	SUHIL
Separation	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Direction	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
From																					
No Traffic per day	1	1	1	2	2	3	1	1	1	1	1	1	1	1	1	1	11	15	10	22	8

- END -

APPENDIX C

Action Plan for implementation of Project 30/10

Main action	Sub action		Target date	Deliverable	Champion	Reference	Status / RMK
	No.	Description					
Collection of data and Gap analysis	**1.1**	Develop template to collect data and information from States based on LoAs		Template for collection of data	ICAO MID	MIDANPIRG Conclusion 22/10	Completed **Appendix A**
	1.2	Follow up with States to submit required data and share with MID office		State Letter to MID States	ICAO MID		Completed
	1.3	Consolidate States input and conduct Gap analysis		Draft Gap Analysis	MID States and ICAO MID		Completed
	1.4	Prepare and present Gap analysis report to ATM SG for decision		Gap Analysis report	ICAO MID		Ongoing
Prioritization of the project	**2.1**	Develop draft priority criteria		Draft list of priority criteria	ICAO MID	MIDANPIRG Conclusion 22/10	Completed **Appendix B**
	2.2	Review and approve priority criteria		list of priority criteria	ATM SG		Ongoing
	2.3	Prioritize common FIR boundary points based on approved criteria in two phases		list of priority common FIR boundary points in two phases	ATM SG		Ongoing **Appendix C**
Development of Roadmap	**3.1**	Develop comprehensive list of actions for each common FIR boundary point to identify requirements related to performance improvement area, target, timeline, safety assessment, training, amendment of Letter of Agreement, set effective date etc.		list of detailed actions for each common FIR boundary point	Concern States for each FIR boundary point. ICAO MID to facilitate coordination between States as well as adjacent region(s), if requested	MIDANPIRG Conclusion 22/10 MIDANPIRG Conclusion 22/11	Guideline **Appendix D**

Main action	Sub action		Target date	Deliverable	Champion	Reference	Status / RMK
	No.	Description					
	3.2	Consolidate actions provided by States in coordinated manner to develop Draft Roadmap		Draft Roadmap	States and ICAO MID	MIDANPIRG Conclusion 22/10	
	3.3	Review Draft Roadmap by ATM SG		Mature Draft Roadmap	ATM SG	MIDANPIRG Conclusion 22/10	
	3.4	Present Mature Draft Roadmap to MIDANPIRG for review and endorsement		Approved Project Roadmap	MIDANPIRG	MIDANPIRG Conclusion 22/10	
Implementation of Phase One	**4.1**	Based on roadmap, focus on priority 1 common FIR boundary points for implementation of required actions and provide periodic feedback and progress report to ICAO MID		Progress report by States	MID States	Roadmap	
	4.2	Based on the feedback and request from States, provide required technical assistance and support.		ICAO Implementation Support initiative(s)	ICAO MID	Roadmap	
	4.3	Provide consolidated report as well as operational impact analysis to ATM SG and MIDANPIRG until successful implementation of Phase One.		Consolidated progress report with impact analysis	ICAO MID	Roadmap	
Implementation of Phase Two	**5.1**	Based on roadmap, focus on priority 2 common FIR boundary points for implementation of required actions and provide periodic feedback and progress report to ICAO MID		Progress report by States	MID States	Roadmap	
	5.2	Based on the feedback and request from States, provide required technical assistance and support.		ICAO Implementation Support initiative(s)	ICAO MID	Roadmap	

Main action	Sub action		Target date	Deliverable	Champion	Reference	Status / RMK
	No.	**Description**					
	5.3	Provide consolidated report as well as operational impact analysis to ATM SG and MIDANPIRG until successful implementation of Phase Two.		Consolidated progress report with impact analysis	ICAO MID	Roadmap	

Appendix A

Data collection

Saudi Arabia	Bahrain							Egypt						Eritrea		Iraq	Jordan							Kuwait					
	DAROR	METLA	ULADA	ROTEL	LADNA	NARMI	DEMTA	KITOT	PASAM	IMRAD	GIBAL	DEDLI	SILKA	RASKA	KOBAS	MURIB	TRF	DEESA	GIBET	TULEP	GENEX	OTILA	SODAR	BOSID	GOVAL	DERKO	COPPI	RAS	IVOBA
Separation	10	10	10	10	10	10	10	20	15	15	80	40	40	80	80	10	10	10	10	10	10	10	10	20	20	20	20	20	20
Direction	1	2	1	1	2	2	2	2	2	2	1	1	1	2	2	2	2	2	2	1	1	1	2	2	1	1	1	2	1
From	KSA		BAH	KSA							KSA	EGP	EGP							JRD	KSA	KSA			KWT	KSA	KWT		KSA
No Traffic per day	188	1	178	17	44	1	1	127	120	34	36	60	126	136	1	14	23	157	18	62	17	17	4	4	13	18	9	4	11

Saudi Arabia	Oman						Qatar				Sudan			UAE				Yemen													
	MIDGU	TOKRA	DAPOL	SITOL	IMDAM	GOBRO	ULIKA	ORLEK	LAEEB	DATRI	MIPOL	KAROX	GIBAP	MUXIT	TANSU	RIBOT	PEKEM	DUDRI	SILPA	ALNES	PADUR	ALSIR	NADKI	ULBON	NETAS	NOBSU	NABAN	NISMI	LAKNA	RIBOK	APDOS
Separation	20	20	20	20	20	20	10	10	10	10	80	80	80	20	20	20	20	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Direction	1	1	1	1	1	2	1	1	1	2	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
From	KSA	OMN	KSA	OMN	KSA		QTR	KSA	KSA		SUD	KSA																			
No Traffic per day	46	3	20	5	2	12	8	4	1	1	3	2	1	1	8	5	18	1	1	1	2	2	3	1	1	1	1	1	1	1	1

Iran	Afghanistan				Armenia	Azerbaijan					Iraq			Bahrain							Kuwait			Oman				
	PAMTU	RANRU	SOKAM	KAMAR	MAGRI	BATEV	ULDUS	LALDA	PARSU	DULAV	PAXAT	RAGET	BOXIX	ROTOX	OBTAR	KUVER	ALSER	DASUT	MIDSI	RAGAS	TULAX	NANPI	PATIR	DENDA	IMLOT	MESPO	ULDUN	IVIVA
Separation	120	120	120	120	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	20	50	50	50	20	20
Direction	2	2	2	2	2	2	2	2	2	2	1	1	2	1	1	2	1	1	1	1	2	2	1	2	2	2	2	1
From											IRQ	IRN		BAH	BAH		IRN	BAH	IRN	BAH			KWT					OMN
No Traffic per day	5	12	2	1	20	43	74	4	6	3	36	43	2	1	1	1	7	18	13	5	20	16	1	16	10	43	1	1

Iran	Pakistan						Qatar				Türkiye						Turkmenistan						UAE				
	PIRAN	KEBUD	DERBO	ASVIB	EGRON	METBI	DASTU	MIDSI	RAGAS	ELIDU	AGINA	DASIS	TESVA	BONAM	ALRAM	LUMOM	GIRUN	RIKOP	ORPAB	NAZAR	OTRUZ	DEBER	GABKO	PATAT	ORSAR	SIR	DAPER
Separation	50	50	50	50	50	50	20	10	20	20	20	20	20	20	20	20	50	50	50	50	50	50	20	20	10	20	20
Direction	2	2	2	2	2	2	1	1	1	1	2	2	1	2	2	1	2	2	2	2	2	2	1	1	2	1	2
From							QTR	IRN	QTR	IRN			IRN			TUK							UAE	IRN		IRN	
No Traffic per day	5	27	31	105	10	16	18	50	36	8	45	112	15	122	18	7	5	37	4	44	1	1	214	186	172	3	1

Oman	India						Iran					Pakistan			Saudi Arabia						UAE															Yemen						
	RASKI	PARAR	TOTOX	REXOD	LOTAV	KITAL	DENDA	IMLOT	MESPO	ULDUN	IVIVA	APELO	TAPDO	ALPOR	MIDGU	TOKRA	DAPOL	SITOL	IMDAM	GOBRO	LALDO	GOMTA	TONVO	MENSA	PASOV	SOLUD	TAPRA	TARDI	MUSAP	ITRAX	LABRI	RETAS	SODEX	MEMTU	LUDID	KIVEL	IMKAD	KAPET	PUTRA	SABEL	KUTVI	BOVOS
Separation	20	50	50	50	50	50	50	50	50	20	20	40	40	40	20	20	20	20	20	20	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	80	80	80	80	80	50	50
Direction	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2
From											OMN	OMN	PAK	OMN	KSA	OMN	KSA	OMN	KSA			UAE	UAE	OMN	OMN	OMN	OMN	UAE	OMN	OMN	UAE	UAE	OMN	UAE	OMN							
No Traffic per day	286	175	146	94	97	61	16	10	43	1	1	234	62	54	46	3	20	5	2	12	81	105	72	138	118	10	30	44	47	11	152	186	6	41	42	11	48	8	1	1	5	11

UAE	Iran					Oman															Qatar											Saudi Arabia				Bahrain			
	GABKO	PATAT	ORSAR	SIR	DAPER	LALDO	GOMTA	TONVO	MENSA	PASOV	SOLUD	TAPRA	TARDI	MUSAP	ITRAX	LABRI	RETAS	SODEX	MEMTU	LUDID	BUNDU	KUPRO	TOSNA	OVONA	TOVOX	ALPOB	TUMAK	ORMID	ASTOG	NALPO	OBNET	MUXIT	TANSU	RIBOT	PEKEM	TUMAK	ALPOB	NALPO	OBNET
Separation	20	20	10	20	20	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	20	20	20	20	8	8	8	8
Direction	1	1	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	1	1	2	2	2	2	1	1	1	1
From	UAE	IRN		IRN			UAE	UAE	OMN	OMN	OMN	OMN	UAE	OMN	OMN	UAE	UAE	OMN	UAE	OMN	QTR	QTR		UAE	UAE	UAE	UAE	UAE	QTR	QTR	QTR					UAE	UAE	BAH	BAH
No Traffic per day	214	186	172	3	1	81	105	72	138	118	10	30	44	47	11	152	186	6	41	42	3	3	40	54	6	192	280	51	1	180	200	1	8	5	18	280	192	180	200

Yemen	India			Eritrea		Ethiopia		Oman							Saudi Arabia														Somalia						
	GIDAS	NABIL	ANGAL	SALEH	FARES	TORBA	PARIM	KIVEL	IMKAD	KAPET	PUTRA	SABEL	KUTVI	BOVOS	DUDRI	SILPA	ALNES	PADUR	ALSIR	NADKI	ULBON	NETAS	NOBSU	NABAN	NISMI	LAKNA	RIBOK	APDOS	OKTAB	ZIZAN	TIMAD	DEMGO	BOMIX	VEDET	SUHIL
Separation	80	80	80	80	80	80	80	80	80	80	80	80	50	50	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Direction	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
From																																			
No Traffic per day	1	1	21	1	1	28	5	11	48	8	1	1	5	11	1	1	1	2	2	3	1	1	1	1	1	1	1	1	1	1	11	15	10	22	8

Sudan	Congo	Chad							Egypt					Eritrea			Ethiopia						Libya	Kenya	Uganda			Saudi Arabia		
	ASKON	IPONO	GNA	ILBIB	KISAL	KURAM	MONAN	KAFIA	ALEBA	ENABU	ATMUL	NUBAR	SISID	TOKAR	FEREB	KSL	ALRAP	TIKAT	AVONO	DASTU	AXOTI	DAGAP	ORNAT	EPLAS	ATUGA	OVELA	KABLA	MIPOL	KAROX	GIBAP
Separation	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Direction	2	2	2	2	2	2	2	2	2	2	2	2	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	2
From													SUD															SUD	KSA	
No Traffic per day	20	1	1	1	1	1	1	30	14	1	1	1	1	1	1	1	15	1	1	1	1	1	1	1	5	1	1	3	2	1

Bahrain	Iran							Kuwait					Qatar				Saudi Arabia							UAE			
	ROTOX	OBTAR	KUVER	ALSER	DASUT	MIDSI	RAGAS	KUMBO	DAVUS	LONOS	RABAP	AMBIK	TULUB	LUBET	GIRMO	GESIT	DAROR	METLA	ULADA	ROTEL	LADNA	NARMI	DEMTA	TUMAK	ALPOB	NALPO	OBNET
Separation	20	20	20	20	20	20	20	10	20	10	10	10	8	8	8	8	10	10	10	10	10	10	10	8	8	8	8
Direction	1	1	2	1	1	1	1	1	1	1	1	1	1	2	1	1	1	2	1	1	2	2	2	1	1	1	1
From	BAH	BAH		IRN	BAH	IRN	BAH	BAH	BAH	KWT	KWT	KWT	BAH		BAH	BAH	KSA		BAH	KSA				UAE	UAE	BAH	BAH
No Traffic per day	1	1	1	7	18	13	5	49	267	124	180	1	7	64	86	34	188	1	178	17	44	1	1	280	192	180	200

Qatar	Bahrain				Iran				Saudi Arabia				UAE										
	TULUB	LUBET	GIRMO	GESIT	DASUT	MIDSI	RAGAS	ELIDU	ULIKA	ORLEK	LAEEB	DATRI	BUNDU	KUPRO	TOSNA	OVONA	TOVOX	ALPOB	TUMAK	ORMID	ASTOG	NALPO	OBNET
Separation	8	8	8	8	20	10	20	20	10	10	10	10	8	8	8	8	8	8	8	8	8	8	8
Direction	1	2	1	1	1	1	1	1	1	1	1	2	1	1	2	1	1	1	1	1	1	1	1
From	BAH		BAH	BAH	QTR	IRN	QTR	IRN	QTR	KSA	KSA		QTR	QTR		UAE	UAE	UAE	UAE	UAE	QTR	QTR	QTR
No Traffic per day	7	64	86	34	18	50	36	8	8	4	1	1	3	3	40	54	6	192	280	51	1	180	200

Egypt	Cyprus			Greece						Jordan	Libya		Saudi Arabia						Sudan				
	RASDA	LAKTO	PASOS	SALUN	METRU	TANSA	PAXIS	ANTAR	KUMBI	ULINA	LOSUL	DITAR	KITOT	PASAM	IMRAD	GIBAL	DEDLI	SILKA	ALEBA	ENABU	ATMUL	NUBAR	SISID
Separation	20	20	20	20	20	20	20	20	20	15	80	80	20	15	15	80	40	40	80	80	80	80	80
Direction	2	2	2	1	1	1	1	1	1	2	2	2	2	2	2	1	1	1	2	2	2	2	1
From				GRE	EGP	EGP	GRE	EGP	GRE							KSA	EGP	EGP					SUD
No Traffic per day	174	73	12	73	124	122	60	166	52	172	15	24	127	120	34	36	60	126	14	1	1	1	1

Libya	Algeria	Chad				Egypt		Malta											Sudan	Tunis		
	IMN	DEKTU	TUMMO	GARIN	TONBA	LOSUL	DITAR	ABRAM	SARKI	VARIG	LUMED	LOTIN	ELIMO	INDOT	OLMAX	BONAR	EKLIS	RASNO	ORNAT	GASRI	TANLI	FARES
Separation	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Direction	2	2	2	2	2	2	2	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2
From								MAL	LIB	MAL	LIB	MAL	MAL	LIB	LIB	MAL						
No Traffic per day	2	2	1	1	1	15	24	2	2	3	2	2	2	2	1	2	5	2	1	11	3	1

Jordan	Egypt	Iraq	Israel		Saudi Arabia							Syria				
	ULINA	PASIP	OSAMA	MOUAB	TRF	DEESA	GIBET	TULEP	GENEX	OTILA	SODAR	BUSRA	ZELAF	SOKAN	NAMBO	KAMEL
Separation	15	80	10	10	10	10	10	10	10	10	10	80	80	80	80	80
Direction	2	2	1	1	2	2	2	1	1	1	2	2	2	1	2	2
From			ISR	JRD				JRD	KSA	KSA				JRD		
No Traffic per day	172	15	52	6	23	157	18	62	17	17	4	5	23	22	2	1

Kuwait	Bahrain					Iran			Iraq		Saudi Arabia					
	KUMBO	DAVUS	LONOS	RABAP	AMBIK	TULAX	NANPI	PATIR	SIDAD	TASMI	BOSID	GOVAL	DERKO	COPPI	RAS	IVOBA
Separation	10	20	10	10	10	20	20	20	10	20	20	20	20	20	20	20
Direction	1	1	1	1	1	2	2	1	1	1	2	1	1	1	2	1
From	BAH	BAH	KWT	KWT	KWT			KWT	IRQ	KWT		KWT	KSA	KWT		KSA
No Traffic per day	49	267	124	180	1	20	16	1	316	374	4	13	18	9	4	11

Syria	Cyprus	Iraq			Jordan					Lebanon		Türkiye			
	NIKAS	MODIK	SIDNA	ELEXI	BUSRA	ZELAF	SOKAN	NAMBO	KAMEL	LEBOR	LATEB	TUSYR	TUNLA	NISAP	LESRI
Separation	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
Direction	2	2	1	1	2	2	1	2	2	2	2	2	1	1	2
From			SYR	IRQ			JRD						TUR	SYR	
No Traffic per day	1	21	1	1	5	23	22	2	1	11	1	1	1	1	1

Iraq	Iran			Jordan	Kuwait		Saudi Arabia	Syria			Türkiye		
	PAXAT	RAGET	BOXIX	PASIP	SIDAD	TASMI	MURIB	MODIK	SIDNA	ELEXI	NINVA	KABAN	RATOV
Separation	20	20	20	80	10	20	10	80	80	80	20	20	20
Direction	1	1	2	2	1	1	2	2	1	1	1	1	1
From	IRQ	IRN			IRQ	KWT			SUR	IRQ	IRQ	IRQ	TUR
No Traffic per day	36	43	2	15	316	374	14	21	1	1	198	129	294

Lebanon	Cyprus					Syria	
	LITAN	ELIKA	DIRRE	KUKLA	BALMA	LEBOR	LATEB
Separation	30	30	30	30	30	80	80
Direction	2	2	1	2	2	2	2
From			CYP				
No Traffic per day	1	1	1	1	9	11	1

Appendix B

Action Plan - Priority criteria

The implementation of this Action Plan is structured into two phases. Accordingly, specific criteria have been established for each phase as follows:

Phase I:

*a) If a common FIR boundary point is located within a surveillance environment on both sides, and the applied separation **15 NM** or more; or*
*b) If the common FIR boundary point is not located within a surveillance environment, at least from one side, and the applied separation is **10 minutes** (equivalent to **80 NM**) or more, provided that traffic at that point reaches at least **40 flights per day**, based on TDS data reported to MIDRMA; or*
c) If the extended longitudinal separation at a common FIR boundary point results in increased workload for ATCOs and flight crews, potentially affecting operational safety, as evidenced by safety reports; or
d) If the common FIR boundary point accommodates major traffic flows within the MID region and/or at interfaces with adjacent regions, as indicated in MIDRMA reports; or
e) If there is a significant increase in traffic movements at the common FIR boundary point during contingency situations, based on historical data; or
f) If mutually agreed upon by the concerned States.

Phase II:

*a) If a common FIR boundary point is located within a surveillance environment on both sides, and the applied separation exceeds **10 NM** but less than 15 NM; or*
*b) If the common FIR boundary point is not located within a surveillance environment, at least from one side, and the applied separation is **10 minutes** (equivalent to 80 NM) or more, provided that traffic is **less than 40 flights per day**, based on TDS data reported to MIDRMA; or*
*c) If the common FIR boundary point is not located within a surveillance environment, at least from one side, and the applied separation is **5 minutes** (equivalent to 40 NM) or more, provided that traffic at that point reaches at least **40 flights per day**, based on TDS data reported to MIDRMA; or*

Appendix C

FIR boundary point priority

Row	FIR point	States concerned	Factor to be considered							
			Environment	Separation	Major flow	No. movement	Safety	Contingency	States request	Priority/Phase
Phase I										
1.	TASMI	IRQ-KWT	Radar	20NM	Yes	374	-	Yes	-	1
2.	RATOV	IRQ-TUK	Radar	20NM	Yes	294	-	Yes	-	1
3.	RASKI	OMN-IND	Radar	20NM	Yes	286	Yes	Yes	OMN	1
4.	DAVUS	BAH-KWT	Radar	20NM	Yes	267	-	Yes	-	1
5.	APELO	OMN-PAK	Radar	40NM	Yes	234	-	-	OMN	1
6.	GABKO	UAE-IRN	Radar	20NM	Yes	214	-	Yes	-	1
7.	NINVA	IRQ-TUK	Radar	20NM	Yes	198	-	Yes	-	1
8.	PATAT	UAE-IRN	Radar	20NM	Yes	186	-	Yes	-	1
9.	PARAR	OMN-IND	Radar	50NM	Yes	175	-	Yes	OMN	1
10.	RASDA	EGP-CYP	Radar	20NM	Yes	174	-	Yes	-	1
11.	ULINA	EGP-JRD	Radar	15NM	Yes	172	-	Yes	-	1
12.	ANTAR	EGP-GRE	Radar	20NM	Yes	166	-	Yes	-	1
13.	TOTOX	OMN-IND	Radar	50NM	Yes	146	-	Yes	OMN	1
14.	RASKA	KSA-ERT	Non-radar	80NM	Yes	136	Yes	Yes	KSA	1
15.	KABAN	IRQ-TUK	Radar	20NM	Yes	129	-	Yes	-	1
16.	KITIT	EGP-KSA	Radar	15NM	Yes	127	-	Yes	-	1
17.	SIKNO	EGP-KSA	Radar	15NM	Yes	126	-	Yes	-	1
18.	METRU	EGP-GRE	Radar	20NM	Yes	124	-	Yes	-	1
19.	TANSA	EGP-GRE	Radar	20NM	Yes	122	-	Yes	-	1
20.	BONAM	IRN-TUK	Radar	20NM	Yes	122	-	Yes	-	1
21.	PASUM	EGP-KSA	Radar	15NM	Yes	120	-	Yes	-	1
22.	DASIS	IRN-TUK	Radar	20NM	Yes	112	-	Yes	-	1
23.	ASVIB	IRN-PAK	Radar	50NM	Yes	105	-	Yes	IRN	1
24.	LOTAV	OMN-IND	Radar	50NM	Yes	97	-	Yes	OMN	1
25.	REXOD	OMN-IND	Radar	50NM	Yes	94	-	Yes	OMN	1
26.	ULDUS	IRN-AZR	Radar	20NM	Yes	74	-	Yes	-	1

27.	LAKTO	EGP-CYP	Radar	20NM	Yes	73	-	Yes	-	1
28.	SALUN	EGP-GRE	Radar	20NM	Yes	73	-	Yes	-	1
29.	TAPDO	OMN-PAK	Radar	40NM	Yes	62	-	Yes	OMN	1
30.	KITAL	OMN-IND	Radar	50NM	Yes	61	-	Yes	OMN	1
31.	PAXIS	EGP-GRE	Radar	20NM	Yes	60	-	Yes	-	1
32.	DEDLU	EGP-KSA	Radar	15NM	Yes	60	-	Yes	-	1
33.	ALPOR	OMN-PAK	Radar	40NM	Yes	54	-	Yes	OMN	1
34.	KUMBI	EGP-GRE	Radar	20NM	Yes	52	-	Yes	-	1
35.	IMKAD	OMN-YMN	Non-radar	80NM	Yes	48	-	Yes	OMN	1
36.	MIDGU	OMN-KSA	Radar	20NM	Yes	46	-	Yes	-	1
37.	AGINA	IRN-TUK	Radar	20NM	Yes	45	-	Yes	-	1
38.	NAZAR	IRN-TKM	Radar	50NM	Yes	44	-	No	-	1
39.	BATEV	IRN-AZR	Radar	20NM	Yes	43	-	Yes	-	1
40.	RAGET	IRN-IRQ	Radar	20NM	Yes	43	-	No	-	1
41.	MESPO	IRN-OMN	Radar	50NM	Yes	43	-	Yes	-	1
Phase II										
42.	SIDAD	IRQ-KWT	Radar	10NM	Yes	316	-	Yes	-	2
43.	TUMAK	UAE/QTR/BAH	Radar	8NM	Yes	280	-	Yes	-	2
44.	OBNET	UAE/QTR/BAH	Radar	8NM	Yes	200	-	Yes	-	2
45.	ALPOB	UAE/QTR/BAH	Radar	8NM	Yes	192	-	Yes	-	2
46.	DAROR	BAH-KSA	Radar	10NM	Yes	188	-	Yes	-	2
47.	RETAS	UAE-OMN	Radar	8NM	Yes	186	-	Yes	-	2
48.	RABAP	BAH-KWT	Radar	10NM	Yes	180	-	Yes	-	2
49.	NALPO	UAE/QTR/BAH	Radar	8NM	Yes	180	-	Yes	-	2
50.	ULADA	BAH-KSA	Radar	10NM	Yes	178	-	Yes	-	2
51.	ORSAR	UAE-IRAN	Radar	10NM	Yes	172	-	Yes	-	2
52.	KINID	BAH-QTR	Radar	8NM	Yes	167	-	Yes	-	2
53.	DEESA	JRD-KSA	Radar	10NM	Yes	157	-	Yes	-	2
54.	LABRI	UAE-OMN	Radar	8NM	Yes	152	-	Yes	-	2
55.	LUBET	BAH-QTR	Radar	8NM	Yes	141	-	Yes	-	2
56.	MENSA	UAE-OMN	Radar	8NM	Yes	138	-	Yes	-	2
57.	LONOS	BAH-KWT	Radar	10NM	Yes	124	-	Yes	-	2
58.	PASOV	UAE-OMN	Radar	8NM	Yes	118	-	Yes	-	2
59.	GOMTA	UAE-OMN	Radar	8NM	Yes	105	-	Yes	-	2
60.	GEXIM	BAH-QTR	Radar	8NM	Yes	99	-	Yes	-	2
61.	GIRMO	BAH-QTR	Radar	8NM	Yes	92	-	Yes	-	2

62.	LALDO	OMN-UAE	Radar	8NM	Yes	81	-	Yes	-	2
63.	TONVO	OMN-UAE	Radar	8NM	Yes	72	-	Yes	-	2
64.	TULEP	JRD-KSA	Radar	10NM	Yes	62	-	Yes	-	2
65.	OVONA	QTR-UAE	Radar	8NM	Yes	54	-	Yes	-	2
66.	OSAMA	JRD-ISR	Radar	10NM	Yes	52	-	Yes	-	2
67.	ORMID	QTR-UAE	Radar	8NM	Yes	51	-	Yes	-	2
68.	MIDSI	BAH/QTR/IRN	Radar	10NM	Yes	50	-	Yes	-	2
69.	KUMBO	BAH-KWT	Radar	10NM	Yes	49	-	Yes	-	2
70.	MUSAP	OMN-UAE	Radar	8NM	Yes	47	-	Yes	-	2
71.	LADNA	BAH-KSA	Radar	10NM	Yes	44	-	Yes	-	2
72.	TARDI	OMN-UAE	Radar	8NM	Yes	44	-	Yes	-	2
73.	MEMTU	OMN-UAE	Radar	8NM	Yes	41	-	Yes	-	2
74.	TOSNA	QTR-UAE	Radar	8NM	Yes	40	-	Yes	-	2

Appendix D

Guideline for Development of Roadmap

Based on the FIR boundary points listed in phase I (Appendix C), the states concerned are requested to develop a comprehensive and structured roadmap. This roadmap should then be submitted to ICAO MID for consolidation into a unified document, which will serve as the basis for further coordination, discussion, and agreement within the ATM Sub-Group.

The roadmap should clearly outline all relevant elements required to support implementation. This includes but is not limited to: identification of applicable performance improvement areas, definition of specific targets, establishment of realistic timelines, and preparation of safety assessments. In addition, States should address training requirements for personnel, identify any necessary amendments to existing Letters of Agreement (LoAs), and propose an effective implementation date for the planned measures.

In developing this roadmap, States are encouraged to focus on practical and achievable “quick win” solutions that can be implemented in the short to medium term. For example, the application of alternative longitudinal separation minima, as described in ICAO Doc 4444 (Chapter 5), may offer immediate operational benefits depending on local conditions and requirements. In contrast, more complex solutions—such as the procurement and installation of new surveillance systems—require significant investment, longer timelines, and more extensive coordination, and should therefore be considered as part of longer-term planning.

Furthermore, States are strongly encouraged to enhance coordination and communication with adjacent FIRs. By doing so, they can maximize the use of existing capabilities, such as improving surveillance coverage through the sharing of surveillance data. This collaborative approach can reduce overall financial costs and accelerate the implementation of necessary improvements. Additionally, through updated or new Letters of Agreement, States may establish operational procedures—such as redefining transfer of control points—to take advantage of stronger surveillance coverage in neighboring FIRs. These interim measures can help mitigate gaps in coverage until permanent solutions are implemented and full operational capability in the affected areas is restored.

Appendix E

Longitudinal Separation Minima and requirements in non-surveillance environments

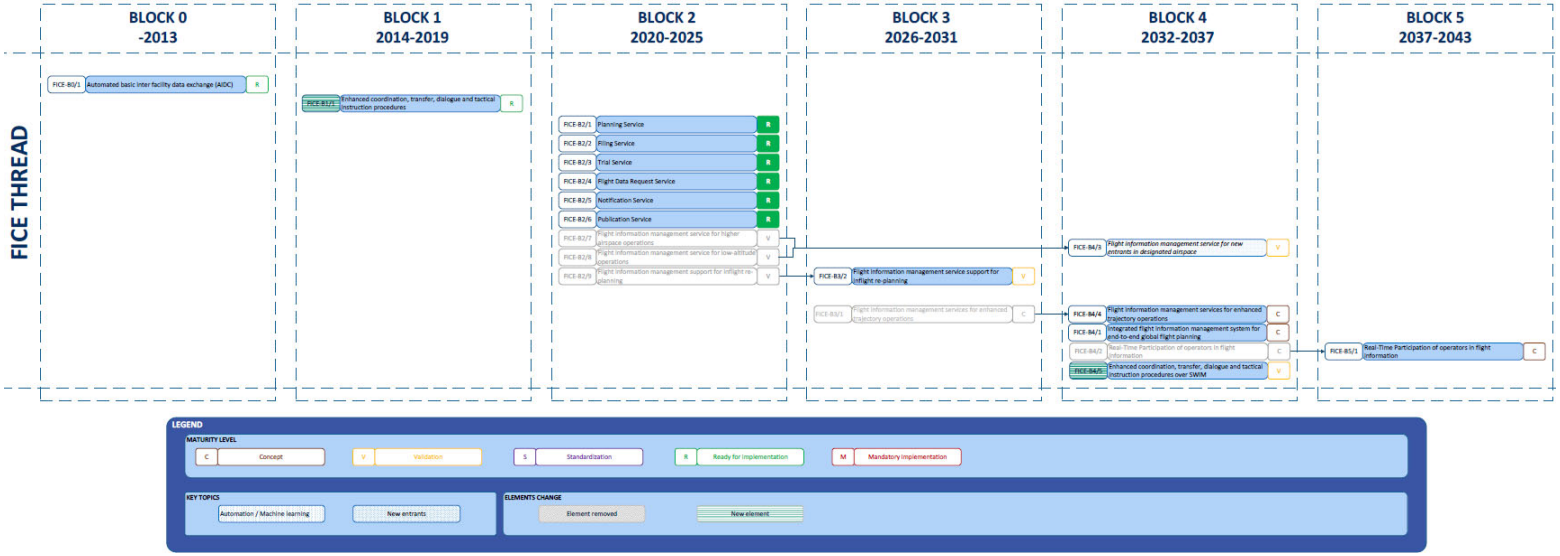
Type of longitudinal separation	Minima	Requirements				
Based on Time	15 minutes	No NAVAID to permit frequent determination of position and speed			Communication: voice reports, CPDLC or ADS-C	
Based on Time	10 minutes	NAVAID permits frequent determination of position and speed			Communication: voice reports, CPDLC or ADS-C	
Based on Time	5 minutes	NAVAID permits frequent determination of position and speed	preceding ACFT maintain TAS 20⁺ kt faster than succeeding ACFT		Communication: voice reports, CPDLC or ADS-C	
Based on Time	3 minutes	NAVAID permits frequent determination of position and speed	preceding ACFT maintain TAS 40⁺ kt or faster than succeeding ACFT		Communication: voice reports, CPDLC or ADS-C	
Mach Number Technique Based on Time	10 minutes	True Mach number approved by ATC			Communication: voice reports, CPDLC or ADS-C	
Mach Number Technique Based on Time	9 to 5 minutes	Mach number difference (0.02 to 0.06) as explained in para 5.4.2.4.3			Communication: voice reports, CPDLC or ADS-C	
Mach Number Technique Based on Distance Using RNAV	80 NM	Separation established & maintain 80⁺ NM between ACFT positions by assigning Mach number	RNAV-equipped aircraft		Operating on designated RNAV routes or on ATS routes defined by VOR	Direct controller-pilot communications
Based on Distance Using RNAV where RNP 10	50 NM	Separation established & maintain 50⁺ NM between ACFT positions by using speed control techniques, including assigning Mach number	This separation was developed in accordance with a collision risk analysis, so implementation requires safety risk assessments. Refer para 5.4.2.6.3.1 and notes		Distance verification at least every 24 minutes as well as procedure in 5.4.2.6.3.2	Direct controller-pilot communications shall be voice or CPDLC
Performance-Based Longitudinal Separation	50 NM	RNP 10	RCP 240	RSP 180	Max ADS-C periodic reporting interval 27 minutes considering para procedures in 5.4.2.9.6 & 5.4.2.9.7	
Performance-Based Longitudinal Separation	50 NM	RNP 4	RCP 240	RSP 180	Max ADS-C periodic reporting interval 32 minutes considering para procedures in 5.4.2.9.6 & 5.4.2.9.7	
Performance-Based Longitudinal Separation	30 NM	RNP 2 or 4	RCP 240	RSP 180	Max ADS-C periodic reporting interval 12 minutes considering para procedures in 5.4.2.9.6 & 5.4.2.9.7	
Performance-Based Longitudinal Separation	20 NM	RNP 2 or 4	RCP 240	RSP 180	Max ADS-C periodic reporting interval 3.2 minutes considering para procedures in 5.4.2.9.6 & 5.4.2.9.7	
Performance-Based Longitudinal Separation	5 minutes	RNP 2 or 4 or 10	RCP 240	RSP 180	Max ADS-C periodic reporting interval 14 minutes considering para procedures in 5.4.2.9.6 & 5.4.2.9.7	
Based on Distance Using DME and/or GNSS	20 NM	ACFT positions report by reference to DME in conjunction with other appropriate navigation aids and/or GNSS			Direct controller-pilot VHF voice communication and frequent intervals to ensure that the minimum will not be infringed	
Based on Distance Using DME and/or GNSS	10 NM	ACFT positions report by reference to DME in conjunction with other appropriate navigation aids and/or GNSS as well as the leading ACFT maintains a TAS 20⁺ kt faster than the succeeding ACFT			Direct controller-pilot VHF voice communication and frequent intervals to ensure that the minimum will not be infringed	

APPENDIX D

Status of MID States for implementation of FFICE - Preliminary Air Navigation Report-2025

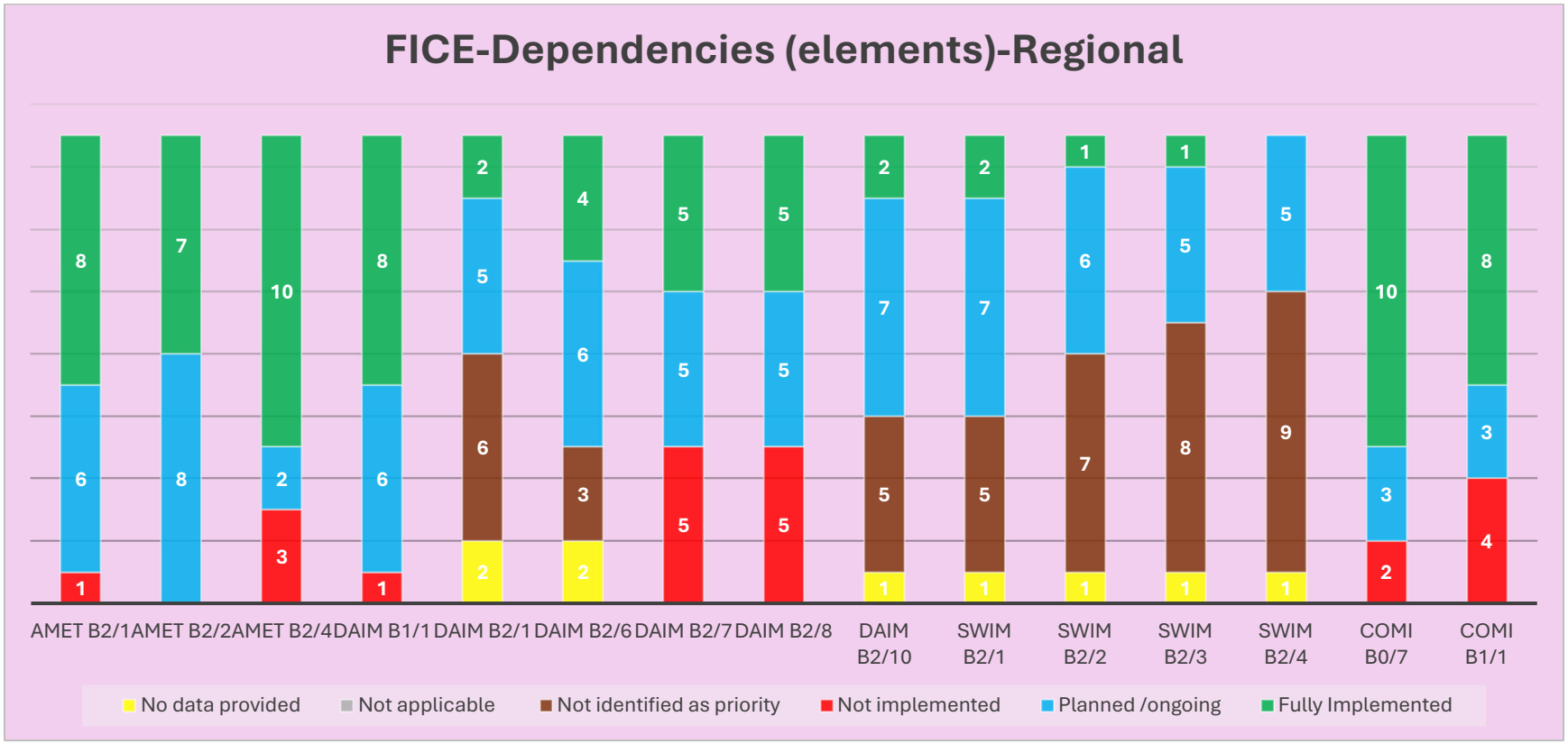
1- ICAO Global Air Navigation Plan (GANP) 8th edition updated ASBU blocks, threads and elements. In this update, the FICE thread includes two new elements, one in Block 1 and another one in Block 4. This update includes delay to some elements, changes to the maturity level of some elements and the update of some enablers.

2- The following diagram reflects the changes related to new elements, the delay of some elements to later Blocks (due to availability delays for enablers) and changes to the maturity level of some elements.

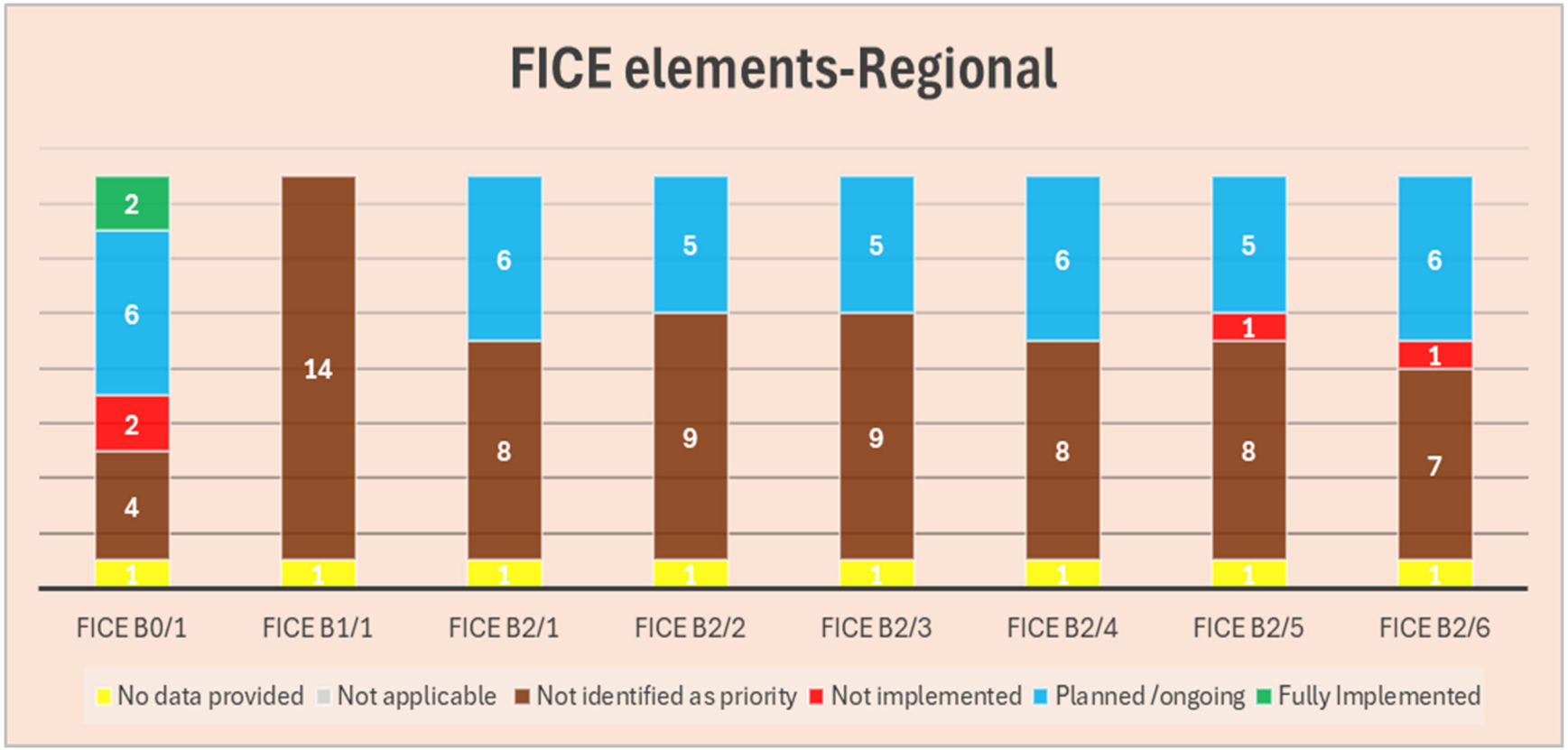


3- Based on this report, FF-ICE services—including planning, filing, trajectory, flight data request, notification, and publication—are in the "Ready for Implementation" phase under Block 2 (2025–2030). Meanwhile, other services remain in the "Validity" phase and are therefore deferred to Blocks 3 and 4.

4- In light of the above, and based on the Draft Air Navigation Report 2025 developed in accordance with the ICAO GANP (8th Edition), the status of FICE elements and their interdependencies—including SWIM (B2/1, B2/2, B2/3, and B2/4), AMET (B2/1, B2/2, and B2/4), DAIM (B1/1, B2/1, B2/6, B2/7, B2/8, and B2/10), and COMI (B0/7 and B1/1)—is summarized as follows:



As illustrated in the chart above, the implementation progress of DAIM and COMI elements falls within an acceptable range. In contrast, the implementation status of SWIM elements related to FICE is predominantly reported as “Planned/Ongoing” or “Not Identified as a Priority”.



As illustrated in the chart above, with the exception of FICE B0/1—which is a regional requirement—the implementation of the remaining FICE elements in Blocks 1 and 2 is predominantly reported as either "Not Identified as a Priority" or "Planned/Ongoing".

APPENDIX E

GUIDELINES FOR THE PUBLICATION OF FIR BOUNDARY POINTS

1) Where FIR is a list of geographical coordinates:
   a) The list of points and their coordinates must follow a clockwise sequence.
   b) The list must have a beginning point and an ending point that are the same coordinate.
   c) The latitude and longitude coordinates must be reported in **DMS (degrees, minutes and seconds)**.
   d) Where an FIR shares a common point with another neighbouring FIR, coordinates should be mutually agreed.

      Note: *Transfer of Control Points, ATS route significant points or waypoints may not necessarily be aligned with boundaries delineation.*

   e) Where delineation of FIR/UIR follows an arc of specific dimension, it should be defined as follows:

      [starting point of ARC] *following an arc of a circle at a* ***radius of [distance]*** *NM centered on* ***[coordinates in DMS]*** *and ending at point* ***[coordinates in DMS]****.*
2) Where FIR is described using "sovereign" boundaries
   a) The description should be simple
      i) Follow sovereign boundary between [State 1] and [State 2]). [1]
   b) Where delineation of FIR/UIR is made by reference to sovereign boundaries common to neighbouring FIR/UIR, the delineation shall be mutually agreed upon.
   c) Where an FIR/UIR follows a sovereign boundary, the United Nations international boundary data set is referred to by ICAO.

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[1] Use short names of States as shown at: http://www.icao.int/about-icao/pages/member-states.aspx

INTERNATIONAL CIVIL AVIATION ORGANIZATION

MIDDLE EAST REGION ATM CONTINGENCY FRAMEWORK

Version 1.0, June 2026

Approved by ATM/SG/X and published by the
ICAO Middle East Regional Office

MIDDLE EAST REGION ATM CONTINGENCY FRAMEWORK

TABLE OF CONTENTS

Contents

FOREWORD

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 light of experience gained with applying contingency measures in various parts of the world and differing circumstances.

This document provides guidelines to ensure the safe and orderly flow of international air traffic across the ICAO Middle East (MID) Region in the event of disruptions of air traffic services (ATS) or related supporting services and to preserve the availability of major (ATS) routes in such circumstances. This document replaces and supersedes the MID Region ATM Contingency Plan (MID Doc 003). The National ATM Contingency Plan Template, ATS Emergency Response Template and Tower Emergency Plan Template are available on the ICAO MID Office website [link] for ANSPs.

This document describes the regional contingency framework, including the arrangements and procedures to support effective regional collaboration, minimize the impact of disruption, and ensure the continued safety of flight operations, in accordance with the provisions of Annex 11—*Air Traffic Services*.

Implementing the regional framework is mainly to prepare the region to respond to and manage contingency events effectively. States are responsible for ensuring they comply with the ICAO provisions concerning contingency and emergency planning and implementation.

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RECORD OF AMENDMENTS

Amendment Number	Effective Date	Initiated by	Paragraph/ Reference	Remarks
1				

ABBREVIATIONS AND ACRONYMS

ACG	ATM Contingency Group
AIS	Aeronautical Information Service
ANS	Air Navigation Services
ANSP	Air Navigation Service Provider
APAC	Asia and Pacific
APP	Approach
ATC	Air Traffic Control
ATFM	Air Traffic Flow Management
CAA	Civil Aviation Authority
CCC	Contingency Coordination Committee
CDM	Collaborative Decision-Making
CNS	Communications, Navigation, Surveillance
CTA	Control Area
FIC	Flight Information Center
FIR	Flight Information Region
FIS	Flight Information Service
FLAS	Flight Level Allocation Scheme
FPL	Flight Plan
GNSS	Global Navigation Satellite System
IATA	International Air Transport Association
IVATF	International Volcanic Ash Task Force
LoA	Letter of Agreement
MET	Meteorological
PB	Playbook
RCC	Rescue Coordination Center
RSC	Rescue sub-centre
SAR	Search and Rescue
SMS	Safety Management system
SRA	Safety Risk Assessment
TWR	Tower
UTA	Upper Control Area
VAAC	Volcanic Ash Advisory Centre

Chapter 1

INTRODUCTION

1.1 The MID Region Air Traffic Management (ATM) Contingency Framework has been developed to assist in providing for the safe and orderly flow of international air traffic in the event of disruption or potential disruption of air traffic services (ATS) and related supporting services and infrastructure in the MID Region, in accordance with the provisions of ICAO Annex 11 – *Air Traffic Services*, Chapter 2, 2.32 and its Attachment C. This framework will assist/enable States and involved aviation stakeholders to develop their own national contingency plans. It must be noted that Airports and associated Airport Emergency Plans are not in the current scope of the framework but can be added in a future version of the RACF.

1.2 The framework includes contingency arrangements and procedures to be implemented in cases when the airspace users decide to circumnavigate airspace(s) due to contingency-related events such as armed conflict, adverse weather, natural disasters, or public health emergencies. The framework also includes scenarios when the ATS are disrupted due to events such as ATM system failure, industrial actions, security, or pandemic, which might significantly affect traffic routing and increase air traffic movements in other airspace(s) and require cross-border coordination.

1.3 The framework adheres to the full ATM contingency management Cycle, which should consist of four Phases: Planning and Preparedness, Response, Recovery, and Post-assessment (including lessons learned, training and exercises)

1.4 The framework would define the roles, responsibilities and functions of the Contingency Coordination Committee (CCC), and the ATM Contingency Group (ACG). The framework would also describe the role and procedures of the regional or multi-regional Contingency Coordination Teams (CCTs) as a mechanism used with the support of ICAO to ensure effective regional coordination and collaboration to respond to and manage contingencies.

1.5 The framework supports preparedness to address contingencies at the national, regional and inter-regional levels through guidelines on the planning aspects and the arrangements and procedures to be implemented. It also provides guidance on the roles of each stakeholder and the process to be followed. The framework also introduces the Contingency Arrangenemts – a set of predefined contingency scenarios with their associated pre-agreed contingency arrangements and procedures between adjacent area control centers (ACCs) that would be applied in most contingency events – and how they can be used.

1.6 The ICAO MID Regional Office will coordinate with ICAO Headquarters and Regional Offices concerned on any amendment to the Regional Contingency Framework and its components.

1.7 The relevant ICAO Regional Offices will distribute this Contingency Framework to all States and international organizations within their regions.

1.8 This version and its updates should be available on the ICAO MID Office website [link].

1.9 To help keep this document up to date, Stakeholders are encouraged to send their comments/suggestions for improvements to the ICAO MID Regional Office (icaomid@icao.int).

1.10 The Framework comprises two main aspects: national and regional levels, as reflected in **Figure 1**. It also describes the regional ATM contingency planning principles and the basic planning elements.

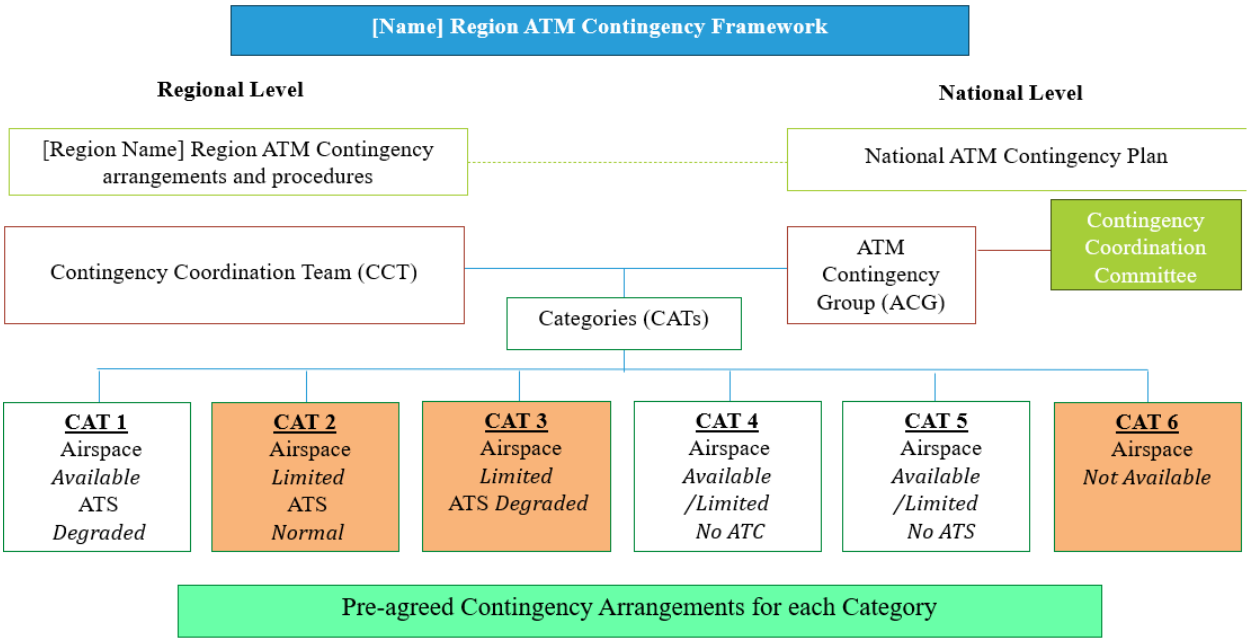


Figure 1. MID Region ATM Contingency Framework

Scope and scale of contingency response and event

1.11 The following are the three levels describing the management scale of a contingency event in the ICAO APAC Region:

Level 1: contingency within the State's delineated FIR(s) that can be managed locally;

Level 2: cross-border contingency requiring collaboration between two adjacent States; and

Level 3: sub-regional, regional, or inter-regional contingency requiring collaboration of more than two States.

1.12 The following are the categories of contingency events that identify the scope of the event and its potential impact on traffic flows. These categories are based on combinations of airspace availability and status of air traffic services:

Category A – Airspace Available/ ATS degraded.

Category B – Airspace Limited/ ATS Available.

Category C – Airspace Limited/ ATS degraded.

Category D – Airspace Available or Limited/ No ATC (only FIS).

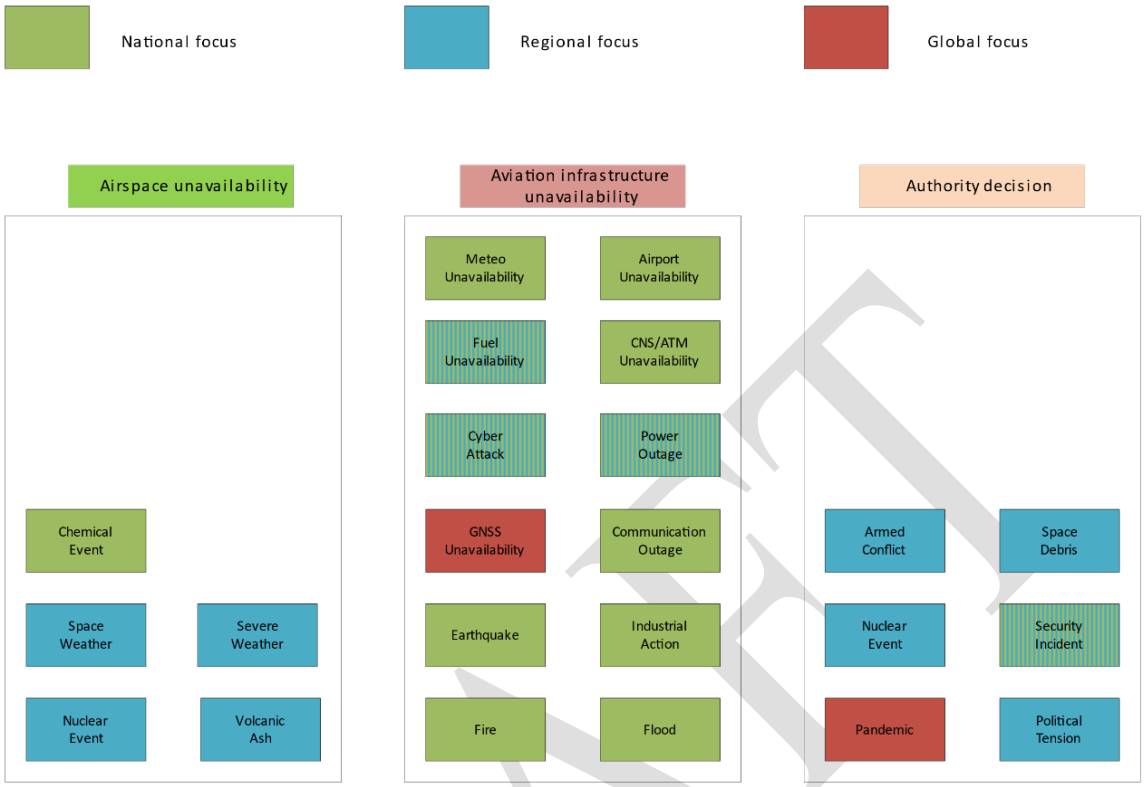
Category E – Airspace Available or Limited/ No ATS at all

Category F – Airspace Not Available or Avoided by airlines

	ATS Normal	ATS Degraded	NO ATC (FIS)	NO ATS
Airspace Available	**Normal situation**	CAT 1	CAT 4	CAT 5
Airspace Limited	CAT 2	CAT 3	CAT 4	CAT 5
Airspace NOT Available	CAT 6	CAT 6	CAT 6	CAT 6

1.13 The possible degradation of ATS and/or supporting services should be simplified in 3 percentage levels (ATS 100% available, ATS 50% available ATS 0% not available), in order to specify more clearly the necessary mitigation measures for any contingency scenario

1.14 The following are examples of contingency events that would impact the availability of airspace and/or the provision of air traffic services: industrial action, pandemic, earthquake, adverse weather, ATM system failure, volcanic ash, nuclear emergency, military activity, national security, political unrest, conflict zones, complete loss of facility operational capability, loss of manpower, GNSS spoofing, cyber security, major events. A table for the relations of different contingency events has been extracted from the ICAO EUR Doc 031 for illustrative purposes.



ATM Contingency Planning Principles

1.15 ATM contingency planning principles in **Appendix A** form the basis for the development of contingency responses and management of any contingency event including bilateral and multilateral States contingency agreements on contingency routes, flight level allocation schemes, longitudinal separation, transfer of communication and control, ATC separation, FIS and alerting service, search and rescue services and delegation of air navigation services (ANS) services as applicable.

ATM Contingency Basic Planning Elements

1.16 The Basic Planning Elements (BPE) in **Appendix B** define the minimum recommended considerations for inclusion in contingency responses, such as those related to Administration, Plan Management, Airspace, ATM Procedures, Pilot/Operator Procedures, Communications Facilities and Procedures, Aeronautical Support services including AIS and MET, and Contact Details of involved facilities and focal points in contingency response and management.

1.17 Air navigation service providers (ANSPs) should implement a mechanism to determine the safety and operational impacts of a contingency event promptly to ensure an effective and rapid response to such an event

1.18 States and ANPSs should include in the training programme of all personnel involved in contingency response and management of ATM contingencies including those related to the APAC Region ATM Contingency Framework and its components. Workshops and exercises at national, sub-regional, and regional levels should be conducted periodically to raise awareness and prepare the region for effective response to contingencies.

MID Region ATM Contingency Focal Points

1.19 The list of MID Region ATM Contingency Focal Points is available on the ICAO MID Office website (link). States and international organizations are urged to keep the contact details of their focal points up to date by contacting the ICAO MID Office (icaomid@icao.int).

MID Region ATM Contingency Monitoring Mechanism

1.20 The monitoring mechanism and status of MID Region readiness to respond to contingency events are available at the ICAO MID Office website [link].

MID Region risk register

1.21 A risk registry for Contingency/Crisis events that reflects the assessment of the impact of such events based on their severity and probability should be developed by the ICAO MID Office. The risk assessment should be conducted periodically but not more than six months apart. The registry could be provided on a web-based platform on the ICAO IMID Office [link].

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CHAPTER 2

NATIONAL LEVEL

2.1 In accordance with Annex 11, 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.

2.2 Preparatory actions should include the initial development of contingency plan that covers responses to categories A to E that are likely to affect the availability of airspace for civil aircraft operations and/or the provision of air traffic services and support services.

2.3 The responsibility for appropriate contingency action for 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).

2.4 States are required to review their national ATM contingency plan and coordinate any amendments with neighbouring States and ICAO MID Office periodically. Copies of the latest version of the National ATM Contingency Plan should be provided to ICAO MID Office for posting on the ICAO MID Office webpage [link].

2.5 Guidance material, an ATM Contingency Plan Template, and an Emergency Checklist have been developed to support States in developing their national ATM Contingency Plans and responding to contingencies and emergencies. They are available on the ICAO MID Office website [link] for ANSPs.

2.6 States are urged to conduct training for the personnel involved in contingency management as well as periodic contingency management tabletop exercises, as these are key success elements for effectively responding to and managing a contingency event.

2.7 States should establish an ATM Contingency Group (ACG) responsible for planning, responding to and managing contingency events. In a contingency event, the ACG would introduce contingency arrangements (in full adherence to CDM principles) and be able to provide up-to-date information at national and regional levels on the situation and associated contingency measures until the situation has returned to normal. The ACG should perform its tasks on a 24-hour basis. The ACG should have a communication/information policy in place to communicate to internal and external/media stakeholders.

2.8 A national contingency coordination committee (CCC) should be established and composed of high-level representatives from aviation and other stakeholders to act as a central agency for the purpose of exchanging information and coordinating activities during disruption. The CCC, as the high-level coordination and decision-making body, should support the ACG in implementing contingency and recovery measures. The ACG should keep the CCC updated on the situation, the status of the implemented measures, their associated challenges and what actions are required from the CCC or its members.

2.9 The terms ACG and CCC are used as indicative names. States might elect to use different terms, especially if already-established entities perform the same tasks.

2.10 The ACG should be composed of the following and other experts or representatives may be invited to join as required:

a) ACC Manager or similar position as Lead;

b) Director of or their delegates: AIS, CNS, MET, RCC; Airspace Planning; ANS Safety (regulator); facility maintenance;

c) Military Liaison Officer;

d) Managers or supervisors of other ATS units, as required.

2.11 The ACG functions should include, but not be limited to, the following:

a) convene rapidly to exchange information to support the assessment of the situation responding to a contingency event;

b) identify which Playbook to apply;

In cases when the event is not covered in a Playbook, then the ACG has to explore contingency arrangements and procedures to be implemented;

c) advise and coordinate with adjacent ACCs, ICAO MID Office, and airspace users (IATA), if no other unit is in place to do so;

d) inform the CCC of the situation and indicate actions required from the CCC, if any;

e) activate the contingency plan and initiate the implementation of the associated contingency arrangements and procedures as reflected in the relevant Playbook;

At this stage required NOTAMs should be issued by all the States concerned.

f) keep updated on the contingency situation at all times;

g) review and update the contingency arrangements and procedures, as required;

h) participate and contribute to the dissections of the contingency coordination team (CCT) when established by ICAO and provide required information and updates;

i) exchange up-to-date information with the adjacent ATS authorities concerned to coordinate contingency measures;

j) notify the designated organizations of the contingency situation sufficiently in advance and/or as soon as possible thereafter;

k) take necessary action to issue NOTAMs in accordance with the contingency plan or as otherwise required by the particular contingency situation. NOTAMs should be issued 48 hours in advance if the contingency situation is sufficiently foreseeable. Templates should be prepared and used as far as possible;

l) prepare actions for the recovery-getting back to normal operations;

m) assess and confirm if the situation is rectified and normal operations can be resumed;

n) agree on the deactivation of the contingency plan or advise the CCT, if established, to do so; and

o) cancel NOTAMs related to the contingency situation.

2.12 The CCC should include high-level representation from the following:

a) Civil Aviation Authority as Lead;

b) ANSPs;

c) Military Authorities;

d) Airport Operators;

e) Airspace users (Commercial air transport, business aviation, general aviation, cargo, state aircraft operations);

f) Metrological Authorities if not part of ANSPs;

g) Search and rescue (RCC, RSCs, and mission control facilities);

h) Other relevant authorities/agencies.

2.13 The CCC functions should include but not be limited to the following:

a) convene rapidly to exchange information and provide high-level support and resources to the ACG in responding to and managing contingencies, as required;

b) take actions, such as mobilizing resources or means, for the provisions of ATS;

c) facilitate coordination between civil and military for management of the airspace, including the establishment of contingency routes as applicable;

d) coordinate internally and with the States and International Organizations concerned for actions that require high-level decision-making, as necessary.

2.14 The following provide the step-by-step actions to be taken in case of a contingency event:
Note. ACC Manager is used for representation; in some States the functions might be performed by a similar position. Also, the task could be performed by a designated staff on behalf of the Manager.

1- The ACC supervisor to action as per the applicable standards of operations;
2- inform the ACC Manager to assess the situation;
3- ACC Manager as the Lead call for the ACG;
4- The ACG Lead defines what Playbook to apply;
5- The ACG Lead advises the adjacent States and ICAO APAC RO and IATA;
6- The ACG Lead informs the CCC indicating if actions are required from the CCC;
7- ACG Activate the contingency plan (arrangements and procedures to be implemented);
8- NOTAM issuance by all the States concerned (affected FIRs), as applicable;
9- Contingency goes Live – ACG to call for meetings (in-person or via video conference);
10- ACG monitors and continuously assesses the situation;
11- ACG reviews and introduces improvements to the contingency arrangements and procedures as needed;
12- Contingency event ceased – ACC Manager advises the adjacent States and ICAO APAC RO and CCC;
13- Deactivation of contingency plan (NOTAMs Cancellation)
14- ACG to carry out a post-implementation assessment.

2.15 When informing the ICAO MID Office (ref. step 5) or based on information received by ICAO, a Contingency Coordination Team (CCT), as described in Chapter 3, would be established and follow the following steps:

1- To assess the situation, the need, and the scope of the CCT, the ICAO Regional Officer/ATM (RO) coordinates with the following:
   a. ICAO Headquarters and other Regional Offices concerned;
   b. Contingency Focal Points of States concerned;
   c. IATA; and
   d. Other organizations as needed.
2- ICAO MID RO activates the CCT and calls for the first CCT Meeting
3- CCT agrees on the implementation of contingency arrangements and procedures (Playbook);
4- CCT monitors and continuously assesses the situation;
5- ICAO arranges for periodic meetings (usually via web conference) of the CCT;
6- ICAO shares the outcome of CCT meetings and updates received;
7- Contingency event ceased – ICAO deactivated the CCT or put it on monitoring status; and
8- CCT members to carry-out post-implementation assessment.

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CHAPTER 3

REGIONAL LEVEL

3.1 A Contingency Coordination Team (CCT) would be established with the support of the ICAO MID Office to effectively respond to and manage contingency situation involving more than one State (Level 2 or 3). CCT is a forum for exchange of information related to a contingency event and to agree on the implementation of necessary contingency arrangements and procedures in a collaborative manner.

3.2 A Contingency Coordination Team (CCT) is to be established from the following members:

- ICAO (Headquarters and Regional Offices Focal points); members;
- States/ANSPs concerned;
- IATA; and
- other organizations and agencies as deemed necessary.

3.3 The main functions of the CCT are not limited to the following:

- monitor continuously information from all relevant sources;
- initiate action for the activation/deactivation of the contingency arrangements and procedures as reflected in the relevant playbook or as determined for the contingency event;
- arrange for the constant exchange of relevant aeronautical information to the ICAO Regional Office and Headquarters;
- liaise with international/regional organizations as appropriate; and
- exchange up-to-date information with States directly concerned and States that would be potentially involved in contingency arrangements; and

3.4 The notification and coordination process in **Table 1.** is intended to facilitate the monitoring, exchange of information, and implementation of contingency arrangements between airspace users, ANSPs, IATA and ICAO.

Airlines	Airline Actions	IATA Actions	Contingency Coordination Team (CCT)	States/ ANSPs
Monitor global activities that have an effect on flight operations.	NONE	NONE	NONE	NONE
Review activities that require airline safety and security assessment	Notify IATA of affected FIR(s) and factors under review (security and/or safety)	When more than (30%) of airlines reporting, notify CCT	CCT established	NONE
Identify specific factors and pending trigger events	Inform IATA on review findings and possible trigger events	Inform CCT on findings and number of airlines reporting	Notify affected States/ANSPs on number of airlines reviewing current activity	NONE
Event triggered: reviewing avoidance options and select avoidance scenario	Inform IATA of selected scenario and volume/initial timelines.	Inform CCT	Notify affected States/ANSPs scenario and volume/timelines	Review scenarios and give feedback on feasibility
Prepare FPLs 48 hours prior of planned avoidance re-routes	Notify IATA	Notify CCT	Notify affected States/ANSPs	Prepare NOTAMs and contingency arrangements and procedures
Submit FPLs at least 24 hours prior to activation of planned avoidance re-routes	Notify IATA	Notify CCT	Notify affected States/ANSPs	Activate Contingency Plan/Publish NOTAMs

Table 1. Notification and coordination process

3.5 Tactical ATC considerations during periods of overloading may require re-assignment of routes or portions thereof, which might be coordinated through the CCT.

3.6 CCT should facilitate the agreement on alternative routes to maximize the use of existing available airspace, level of ATS, and communication, navigation, and surveillance.

3.7 In the event that ATS is disrupted, 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 that have been activated as alternate 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.

3.8 In the event that the State/ANSP is unable to issue NOTAMs, arrangements will be made for another NOTAM Office to issue the required NOTAMs.

3.9 **Draft NOTAMs** are included as templates in each playbook to be used in case of a contingency event.

3.10 **Contingency Routes (CRs)** might be developed in advance and be included in the Continegncy Arrangements in case the traffic cannot be accommodated on the current ATS route structure.

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

3.12 It is recognized that operators may incur economic penalties during a contingency event. Therefore, ATFM measures should be implemented as far as possible to make operations more predictable.

Traffic Information Broadcast by Aircraft (TIBA) Procedures

3.13 Traffic Information Broadcast by Aircraft (TIBA) procedures shall be applied in accordance with ICAO Annex 11 – *Air Traffic Services*, Attachment B. The TIBA frequency for the MID Region is XXXXMHZ.

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CHAPTER 4

Contingency Arrangements (CA)

4.1 Contingency Arrangements are designed to bridge the gap between the planning and implementation phases. They may include a set of pre-agreed contingency arrangements and procedures to be implemented by ACCs in response to contingency events.

4.2 The Contingency Arrangements have been developed based on a determination of the airspace availability and the level of air traffic services to be provided. The matrix below illustrates the link of each Contingency Arrangement with the contingency category:

	ATS Normal	**ATS Degraded**	**NO ATC (FIS)**	**NO ATS**
Airspace Available	**Normal situation**	CAT A CA1	CAT C CA4	CAT D CA5
Airspace Limited	CAT B CA2	CAT A CA3	CAT C CA4	CAT D CA5
Airspace NOT Available	CAT E CA6	CAT E CA6	CAT E CA6	CAT E CA6

Table 2. Contingency Arrangements **Matrix**

4.3 The Contingency Arrangement therefore covers a comprehensive range of contingency events; however, appropriate contingency arrangements and procedures might be required to address other contextual factors. Therefore, ANSPs are required to effectively engage with their neighboring States and ICAO, if needed via the CCT, to agree on the specific contingency arrangements and procedures for such events.

4.4 Contingency arrangements and procedures are required when the procedures agreed upon in the ATS letters of agreement (LoAs) between adjacent ACCs cannot be applied, hence they are considered as temporary updates to the LoAs..

4.5 The following playbooks as detailed in **Appendix C** were designed in the form of Checklists that can be populated and recused as required during contingency events. The PBs can be provided on a web-based platform or App for easy access and utilization:

CA1:

Airspace is available as usual, but ATS are degraded due to a Category A event such as industrial action, pandemic, earthquake, nuclear emergency, adverse weather, ATM system failure, GNSS spoofing that would affect to some extent the provision of ATS In this kind of events traffic will have access to the whole FIR, however, ACC will have a limitation in providing services as normal.

CA2

Airspace is limited due to a Category B event such as Volcanic Ash, nuclear emergencies, military activity, and weather, but ATS are normal. In this kind of events traffic would not have access to the affected portion of the airspace, accordingly, ATS will have to accommodate the traffic in the available airspace through the introduction of changes to the ATS route structure.

CA3

Airspace is limited, and ATS are degraded due to Category A events such as Volcanic Ash, nuclear emergencies, military activity, ATM system failure and adverse weather. This kind of event require procedures to circumnavigate traffic away from the affected airspace taking into consideration the

limitation of the ATS.

CA4
Airspace is available or limited but no air traffic control (ATC), only flight information services can be provided, due to a Category C event such as a pandemic, national security, industrial action ATM system failure. In this kind of events provision of air traffic control is affected but other ATS will remain available or arranged for. One of the contingency measures would be changing the airspace to class G.

CA5
Airspace is available or limited, but no ATS due to a Category D event such as complete loss of facility operational capability, total loss of manpower, and security. In this kind of events no ATS could be provided, however, traffic might still have access or operate within, to or from the affected FIR. This will require arrangements by neighboring ACCs to reroute traffic avoiding the affected FIR.

CA6
Airspace is not available or avoided due to a Category E event such as airspace closure by the State or airlines avoiding the airspace due adverse weather, military activities, natural disaster despite the status of ATS. This might look similar to PB5, however, in this is the kind of event when full access to the FIR is not available.

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CHAPTER 5

MID ATM VOLCANIC ASH CONTINGENCY PLAN

5.1 The ICAO Air Traffic Management Volcanic Ash Contingency Plan Template provides information on terminology related to volcanic ash contingency responses, and the *pre-eruption*, *start of eruption*, *on-going eruption* and *recovery* phases of volcanic ash cloud events. Information is also provided on air traffic services procedures, and on air traffic flow management procedures.

5.2 The phases of volcanic eruption activity may be summarized as follows:

Pre-Eruption Phase: a volcanic eruption is expected.

Start of Eruption Phase: commences with the outbreak of the volcanic eruption and entrance of volcanic ash into the atmosphere.

On-going Eruption Phase: commences with the issuance of the first volcanic ash advisory (VAA) containing information on the extent and movement of the volcanic ash cloud.

Recovery Phase: commences with the issuance of the first VAA containing a statement that no volcanic ash is expected.

5.3 The actions to be taken by relevant Volcanic Observatories, Volcanic Ash Advisory Centres, MWOs, AIS Units and ACCs are described in ICAO Doc 9766 – *Handbook on the International Airways Volcano Watch (IAVW)*.

5.4 Operators are required by ICAO Annex 6 – *Operation of Aircraft* to implement appropriate mitigation measures for volcanic ash in accordance with their safety management system (SMS), as approved by the State of the Operator/Registry. This document assumes that ICAO requirements regarding safety management systems have been implemented by all States and aircraft operators. Detailed guidance on Safety Risk Assessments (SRAs) for flight operations with regard to volcanic ash contamination can be found in the manual on *Flight Safety and Volcanic Ash – Risk Management of Flight Operations with Known or Forecast Volcanic Ash Contamination* (ICAO Doc 9974)

5.5 States' regulatory provisions and arrangements should be reviewed to ensure that, in accordance with the guidance provided in ICAO Doc 9974:

a) Aircraft operators are required to include in their safety management system (SMS) an identifiable safety risk assessment for operations into airspace forecast to be, or at aerodromes known to be, contaminated with volcanic ash

b) Safety oversight procedures are used for the evaluation of operators' capability to conduct flight operations safely into airspace forecast to be, or aerodromes known to be, contaminated with volcanic ash.

5.6 States' airspace and airport management policies and procedures should be reviewed to ensure that (in accordance with the guidance provided in ICAO Doc 9974 – *Flight Safety and Volcanic Ash* and the provisions of ICAO Doc 4444 – *PANS-ATM*, 15.8.1c and Note 2):

a) Airspace affected by volcanic ash cloud should not be 'closed'.

b) Specification in NOTAM of alternate routing or other air traffic flow management (ATFM)[1] measures to manage airspace constraints arising from volcanic ash cloud should be solely for the purpose of ensuring the predictability and regularity of air traffic, and should be based on an assessment of capacity and demand in airspace affected by volcanic ash and/or or by aircraft avoiding the volcanic ash cloud

c) NOTAM specifying alternate routing or other ATFM measures related to a volcanic eruption or volcanic ash cloud should be issued separately from the ASHTAM/NOTAM issued in accordance with Annex 15, 5.1.1.1, r and u;

d) Aerodromes should only be closed by NOTAM for periods of observed volcanic ash contamination of the surface of the aerodrome movement area;

e) Airport capacity limitations of alternate aerodromes, including apron capacity, should be considered, and recommendations for the use of other alternates considered for inclusion in NOTAM (in c, above);

f) If required by State regulations, any declaration of a Danger Area or Restricted Area should be confined to the pre-eruptive or erupting volcano and the area containing its forecast or observed ejecta[2].

5.7 To ensure effective volcanic ash information, coordination and collaboration, States should:

a) Establish a mechanism to provide regular and timely updates of information during a volcanic eruption and/or ash cloud event to ensure all stakeholders are up to date with current information, situation reports and contingency planning;

b) participate in volcanic ash exercises; and

c) consider establishing an internal crisis management centre, where applicable, to support the collaborative and timely sharing of information such as volcanic eruptions or other crises that will have a significant impact on airport and/or airspace management

Note: This is supplemental to the provisions of Annexes 3 and 15.

5.8 AIS units are required under the provisions of Annex 15 to issue information relating to volcanic ash cloud. Information may be issued in either NOTAM or ASHTAM format. Annex 15 specifies that ASHTAM shall include *Item E — Colour code for level of alert indicating volcanic activity*. Colour-coded levels for volcanic activity are not provided by all volcanic observatories and/or Volcanic Ash Advisory Centres (VAACs) in the Asia/Pacific Region, and only one State issues ASHTAM. NOTAM format should be used to disseminate volcanic ash cloud information.

5.9 NOTAM issued for volcanic eruption or volcanic ash cloud should include all items of information listed in the ASHTAM format except item I (closure of airspace and/or air routes). Colour-coded activity level information may be included in NOTAM if available.

5.10 Each State should ensure that a list of volcanoes relevant to the State is maintained at all International NOTAM Offices, with volcano name, number and nominal position.

5.11 ICAO Doc 9691 *Manual on Volcanic Ash, Radioactive material and Toxic Chemical*

Clouds Appendix E – *Cross reference list of volcanoes and navigation aids* provides a list of ICAO registered volcanoes. The information provided includes the following note:

> *Note: Doc 9691 Appendix E requires that another list, the List of Volcanoes of the World for VAAC Use, available at http://www.volcano.si.edu/projects/vaac-data/ and maintained by the Global Volcanism Program of the Smithsonian Institution, should be used in case of any discrepancy between the Smithsonian database and the list published in Doc 9691 Appendix E.*

5.12 The Fourth Meeting of the Asia/Pacific Volcanic Ash Exercises Steering Group (VOLCEX/SG/4), held in Bangkok, Thailand, from 15 to 17 March 2016, recommended that the List of Volcanoes of the World for VAAC Use (Smithsonian Institution) be considered the definitive list of volcanoes for use in the Asia/Pacific Region.

5.13 The List of volcanoes is updated frequently, without notification. States should ensure that relevant NOTAM offices include in their local procedures provisions for frequent checks of the list to ensure any changes are recorded and used in ASHTAM/NOTAM and NOTAM Templates.

5.14 The MID Region Volcanic Ash Plan is available on the ICAO APAC Office website [Link].

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APPENDIX A: MID REGION ATM CONTINGENCY PLANNING PRINCIPLES

1. Area Control Centres (ACCs) and Flight Information Centres (FICs) should have a National ATM Contingency Plan to ensure the safe transit of international traffic in the event of disruption or potential disruption of ATS and related supporting services in the airspace for which they are responsible. ATM Contingency arrangements and procedures" would refer to measures with cross-border aspects (Level 2 or 3 of the RACF).

2. The overriding principle is that safety has primacy over efficiency and optimal levels and routes;

3. Contingency Operations might necessitate lower than normal airspace capacity to ensure safety.

4. System and ATC service redundancy is the most effective contingency capability.

5. Contingency Plan should define the following where applicable:

   a. Contingency Routes supported by Flight Level Allocation Scheme (FLAS) and minimum navigation and height-keeping (e.g. RVSM or non-RVSM) capability for access;

   Note: Contingency Route and/or FLAS need not be defined where the Contingency Plan states that all routes and/or levels remain available during contingency operations.

   b. provisions for tactical definition and coordination of additional routes/FLAS and priority for access to accommodate selected non-scheduled operations such as humanitarian, medical evacuation and flood and fire relief (FFR) flights;

   c. priority determination for routine scheduled and non-scheduled flights;

   d. flights excluded from operations in contingency airspace, and minimum navigation and height keeping (RVSM) capability required for access to the contingency airspace;

   e. specified minimum longitudinal spacing between consecutive aircraft entering the contingency airspace on non-separated ATS contingency routes;

   f. Contingency communication arrangements including means of communication within contingency airspace and communications transfer arrangements for aircraft entering and leaving the airspace;

   g. Details of delegation of air traffic services arrangements (if any);

   h. Contingency points of contact

6. Contingency Arrangements (arrangements between neighbouring administrations) should be included in bi-lateral or multi-lateral agreements between States in all cases where activation of Contingency Plan will impact upon a neighbouring State.

7. Close cooperation between neighbouring administrations, together with supporting mechanisms for the tactical definition and promulgation of contingency routes.

8. Contingency routes must be vertically separated whenever lateral route spacing is less than the minimum specified by the State for contingency operations.

9. FLAS planning should include consideration of allocating the optimum flight levels to routes used by long haul aircraft, depending on the traffic density on the route, wherever practicable.

10. Spacing between contingency ATS routes should be in accordance with the applicable separation described in the *Procedures Air Navigation Services – Air Traffic Management (Doc 4444) and Regional Supplementary Procedures (Doc 7030).* .

11. Minimum longitudinal separation between aircraft operating on the same contingency route and not vertically separated should be 15 minutes or 120 NM. However, this may be reduced to 10 minutes or 80 NM in conjunction with application of the Mach number technique where authorized by the relevant authority and agreed in the appropriate LoAs or other contingency arrangements.

12. Contingency ATS routes and FLAS, and contingency procedures, should be agreed between geographically grouped neighbouring States to form sub-regional contingency plans.

13. Contingency ATS routes should be published in State AIP to permit the storing of route details in airspace users' navigation databases. Contingency arrangements sould include the sovereign and, if applicable, also High Seas part of the airspace.

14. Airspace classifications for ICAO Classes A, B and C airspace should remain unchanged as practicable during contingency operations to facilitate managed access to the airspace in accordance with the contingency plan. Classes D and E airspace may be reclassified as Class C or higher where necessary to preclude VFR operations.

15. Ground and airborne navigation requirements should be defined if necessary

16. Alternate aerodromes should be specified where necessary for the readiness of the airport control towers, approach units and airport operators.

17. Airspace affected by volcanic ash cloud should not be closed to international civil aviation, where operators comply with the relevant ICAO provisions.

18. Amended ATS routes, whether published or promulgated ad-hoc, may be prescribed as part of the air traffic flow management (ATFM) response to expected demand and capacity imbalance caused by aircraft avoiding volcanic ash cloud.

19. Aerodromes should only be closed by NOTAM for periods of observed volcanic ash contamination of the surface of the aerodrome movement area.

20. Closure of airports affected by volcanic ash deposition should be supported by a safety assessment conducted in collaboration between airport operator, aircraft operators and the air navigation service provider, in accordance with their respective safety management systems.

21. Civil aircraft operations over or near conflict zones should be in accordance with ICAO Doc 10084 and ICAO Doc 9554.

APPENDIX B: BASIC PLAN ELEMENTS

Element 1: Administration

a) Record of signatories, version control and records of amendment.

b) Definition of the objectives, applicable airspace and operations, and exclusions.

Element 2: Plan Management

c) List of States and FIRs affected, and the agreed methods of notification in the event of pre-activation, activation and termination of the plan.

Contingency events may arise with insufficient advance notice to permit pre- activation of contingency plans

d) Details of the arrangements in place for management of the plan, including:

i. Establishment of ATM Contingency Group (ACG) for 24-hour responding to and management of contingency and coordination of operational and supporting activities under the contingency plan; and

ii. establishment of a Contingency Coordinating Committee composed of high-level representatives from aviation and other stakeholders to act as a central agency for the purpose of exchanging information and coordinating activities during disruption. The CCC provide required high-level support to ACG and taken necessary action to restore the situation.

e) Details of testing, review and reporting actions:

i. schedule of desktop and simulator testing;

ii. post-activation review (PAR) requirements:

- a preliminary PAR report within 28 days of any activation or testing of contingency plans, including any recommendations to address deficiencies and implement improvements in contingency plans, arrangements, procedures and training.
- a more comprehensive PAR report should be prepared for major contingency events, or any contingency event involving an air safety incident investigation.

A full PAR analysis of major events could take many months to complete.

- input to the PAR from all parties affected by or involved in the response to the contingency is actively sought and considered;
- bi-lateral or multi-lateral PAR for activation or testing of Level 2 and 3 contingency arrangements and procedures;

iii. timely reporting to ICAO APAC RO and other affected States of anticipated or experienced disruptions requiring activation of contingency plans.

f) inclusion of contingency plans, arrangements and procedures in ATS and other involved personnel training and refresher training programmes;

g) raising awareness of all parties involved in contingency.

Element 3: Airspace

h) Procedures for dynamic management of the airspace;

Guidance on the dynamic management of restricted, prohibited and danger areas as well enhanced

flexible sue of airspace are contained in the ICAO manual *on Civil-Military in Air Traffic Management* (Doc 10088).

i) Criteria for airspace classification changes and associated separation;

j) CNS status and performance requirements; and

k) Implementation of oriented track system in collaboration with neighbouring ACCs.

l) Procedures for the Prior Permission Required (PPR) aeronautical information publication when required to access the airspace.

Element 4: ATM Procedures

m) Details of re-routing to avoid the whole or part of the airspace concerned, normally involving establishment of:

i. strategic and tactical collaborative oriented track system providing additional routes or route segments with associated conditions for their use; and/or

ii. a simplified route network through the airspace concerned, together with a FLAS, to ensure that a standard minimum vertical separation is applied where less than a specified minimum lateral separation exists between routes.

n) details of how domestic traffic, departing and arriving flights and SAR, humanitarian and State aircraft flights will be managed during the contingency period.

o) procedures for transition from normal services levels to contingency services, and resumption of normal service.

p) procedures for joining or departing a contingency route.

q) details of reduced levels of service, if any, within the affected airspace.

r) establishment of arrangements for controlled access to the contingency area to prevent overloading of the contingency system, utilizing allocated airspace entry times or, where ATFM capability exists, tactical ATFM measures.

s) procedures for adjacent service providers to establish longitudinal spacing at the entry point, and to maintain such separation through the airspace;

t) reassignment of responsibility for providing air traffic services, to the extent possible, in non-sovereign airspace and to international aircraft transiting sovereign airspace; and/or

u) coordination and communications transfer procedures for aircraft entering and leaving the affected airspace.

Element 5: Pilot/Operator Procedures

v) requirements for flight plan submission during the contingency period, including contingency route planning requirements, and arrangements if airspace is restricted or not available and no contingency route is available;

w) emergency procedures, including TIBA and/or in-flight requirements for broadcast of position and other information, and for continuous listening watch, on specified pilot- pilot and GUARD VHF frequencies;

x) requirements for display of navigation and anti-collision lights;

y) requirements for climbing and descending well to the right of the centreline of specifically

identified routes;

z) requirements for all operations to be conducted in accordance with IFR, including operating at IFR flight levels from the relevant Table of Cruising Levels in Appendix 3 of Annex 2, except where modified by a FLAS.

Element 6: Communications Facilities and Procedures

aa) provision and operation of adequate air-ground communications, AFTN and ATS direct speech links;

bb) specification of radio frequencies to be used for particular contingency routes.

cc) log-on and connection management for CPDLC aircraft, where appropriate;

dd) use of ADS-C automatic position reporting in lieu of voice position reporting to ATS.

Element 7: Aeronautical Support Services including AIS and MET

ee) AIP Information regarding the Contingency Planning, and notification by NOTAM of anticipated or actual disruption of air traffic services and/or supporting services, including associated contingency arrangements, as early as practicable and, in the case of foreseeable disruption, not less than 48 hours in advance.

ff) reassignment to adjacent States of the responsibility for providing meteorological information and information on status of navigation aids.

Element 8: Contact Details

gg) contact details for the RCC responsible for the affected FIR(s), and coordination arrangements.

hh) contact details of adjacent States ANSPs and other international organizations participating in the contingency plan.

ii) prior notification requirements for adjacent FIR activation of Level 2 and 3 contingency arrangements.

Note: The first priority response to any short notice contingency response should be the immediate handling of the air situation, followed by the activation of the contingency plan.

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[ACC]

Contingency Arrangements (CR1)

This playbook contains arrangements to ensure the continued safety of flight operations during the disruption. The plan has been prepared in accordance with ICAO Annex 11 ─ *Air Traffic Services,* Chapter 2, paragraph 2.32 and Attachment C to provide the ATS procedures, contingency route structure, and other arrangements, to be used on a temporary basis, while air traffic services are being provided from **[ACC NAME]** ACC but with some limitation than normal situation.

Airspace Available	**ATS or supporting services disrupted**	Name:
Due to: (select from risk register what to apply)	Date:	Time:
ATCO shortage (or strike) ATM System failure VAC Natural Disaster Power supply/infrastructure failure	SUR infrastructure not available COM infrastructure not available NAV infrastructure not available Political unrest Conflict zone	GNSS interference/spoofing Cyber attack Weather Airport unavailability Other (e.g. SWX space weather, Pandemic, fuel shortage)
Conditions: (depending on the percentage of impacted ATS operations, a description of "What has to be done to solve the issue by whom and when " has to be defined)	Degradation of ATS / 0% / 50% / 100% Level 1 - internal/national Level 2 – involving adjacent States Level 3 – multiple States in the Region Level 4 – multiple States inter-regional	
Explain the cause:		

Actions		**Status**
Adjacent ACCs	Contact	
ACC A		
ACC B		
ACC C		
IATA		
ICAO		
ATS OPERATIONAL PROCEDURES		
Issuing NOTAM		
Rerouting scheme		
Separation standards LAT LONG		

Separation standards Vertical		
ATFM Flow Control		
Capacity Restrictions/Limitations		
Level Restrictions or FLAS		
Airspace Classification		
Transfer of Control		
Position Reporting TIBA		
Overflight Permissions		
Instructions for Overflying traffic		
Procedures for flights to/from airports inside [Name of States]		
Filing of flight plans		
Pilot operating procedures		
Prior Permission Required (PPR)		
Interception of civil aircraft		
Airport impacts		

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[ACC]

Contingency Arrangements (CR2)

This playbook contains arrangements to ensure the continued safety of flight operations during the disruption. The plan has been prepared in accordance with ICAO Annex 11 – *Air Traffic Services,* Chapter 2, paragraph 2.32 and Attachment C to provide the ATS procedures, contingency route structure, and other arrangements, to be used on a temporary basis, while air traffic services are being provided from **[ACC NAME]** ACC but with some limitation than normal situation.

Airspace Limited	**ATS normal**	Name:
Due to: (select from risk register what to apply)	Date:	Time:
ATCO shortage (or strike) ATM System failure VAC Natural Disaster Power supply/infrastructure failure	SUR infrastructure not available COM infrastructure not available NAV infrastructure not available Political unrest Conflict zone	GNSS interference/spoofing Cyber attack Weather Airport unavailability Other (e.g. SWX space weather, Pandemic, fuel shortage)

Conditions: (depending on the percentage of impacted ATS operations, a description of "What has to be done to solve the issue by whom and when " has to be defined)

Degradation of ATS	0%	50%	100%
Level 1 - internal/national			
Level 2 – involving adjacent States			
Level 3 – multiple States in the Region			
Level 4 – multiple States inter-regional			

Explain the cause:	
Actions	**Status**
Adjacent ACCs	Contact
ACC A	
ACC B	
ACC C	
IATA	
ICAO	
ATS OPERATIONAL PROCEDURES	
Issuing NOTAM	
Rerouting scheme	
Separation standards LAT LONG	
Separation standards Vertical	
ATFM Flow Control	

Capacity Restrictions/Limitations		
Level Restrictions or FLAS		
Airspace Classification		
Transfer of Control		
Position Reporting TIBA		
Overflight Permissions		
Instructions for Overflying traffic		
Procedures for flights to/from airports inside [Name of States]		
Filing of flight plans		
Pilot operating procedures		
Prior Permission Required (PPR)		
Interception of civil aircraft		
Airport impacts		

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<table>
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Contingency Arrangements (CR3)

This playbook contains arrangements to ensure the continued safety of flight operations during the disruption. The plan has been prepared in accordance with ICAO Annex 11 ─ Air Traffic Services, Chapter 2, paragraph 2.32 and Attachment C to provide the ATS procedures, contingency route structure, and other arrangements, to be used on a temporary basis, while air traffic services are being provided from [ACC NAME] ACC but with some limitation than normal situation.</td></tr>
<tr><td>Airspace Limited</td><td>ATS or supporting services disrupted</td><td>Name:</td></tr>
<tr><td>Due to: (select from risk register what to apply)</td><td>Date:</td><td>Time:</td></tr>
<tr><td>ATCO shortage (or strike)
ATM System failure
VAC
Natural Disaster
Power supply/infrastructure failure</td><td>SUR infrastructure not available
COM infrastructure not available
NAV infrastructure not available
Political unrest
Conflict zone</td><td>GNSS interference/spoofing
Cyber attack
Weather
Airport unavailability
Other (e.g. SWX space weather, Pandemic, fuel shortage)</td></tr>
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<tr><td>Level 2 – involving adjacent States</td><td></td><td></td><td></td></tr>
<tr><td>Level 3 – multiple States in the Region</td><td></td><td></td><td></td></tr>
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Separation standards Vertical		
ATFM Flow Control		
Capacity Restrictions/Limitations		
Level Restrictions or FLAS		
Airspace Classification		
Transfer of Control		
Position Reporting TIBA		
Overflight Permissions		
Instructions for Overflying traffic		
Procedures for flights to/from airports inside [Name of States]		
Filing of flight plans		
Pilot operating procedures		
Prior Permission Required (PPR)		
Interception of civil aircraft		
Airport impacts		

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Contingency Arrangements (CR4)

This playbook contains arrangements to ensure the continued safety of flight operations during the disruption. The plan has been prepared in accordance with ICAO Annex 11 ─ Air Traffic Services, Chapter 2, paragraph 2.32 and Attachment C to provide the ATS procedures, contingency route structure, and other arrangements, to be used on a temporary basis, while air traffic services are being provided from [ACC NAME] ACC but with some limitation than normal situation.</td></tr>
<tr><td>Airspace Available</td><td>ATS or supporting services disrupted</td><td>Name:</td></tr>
<tr><td>Due to: (select from risk register what to apply)</td><td>Date:</td><td>Time:</td></tr>
<tr><td>ATCO shortage (or strike)
ATM System failure
VAC
Natural Disaster
Power supply/infrastructure failure</td><td>SUR infrastructure not available
COM infrastructure not available
NAV infrastructure not available
Political unrest
Conflict zone</td><td>GNSS interference/spoofing
Cyber attack
Weather
Airport unavailability
Other (e.g. SWX space weather, Pandemic, fuel shortage)</td></tr>
<tr><td>Conditions: (depending on the percentage of impacted ATS operations, a description of “What has to be done to solve the issue by whom and when ” has to be defined)</td><td colspan="2"><table>
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<tr><td>Level 2 – involving adjacent States</td><td></td><td></td><td></td></tr>
<tr><td>Level 3 – multiple States in the Region</td><td></td><td></td><td></td></tr>
<tr><td>Level 4 – multiple States inter-regional</td><td></td><td></td><td></td></tr>
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<tr><td>ACC B</td><td></td><td></td></tr>
<tr><td>ACC C</td><td></td><td></td></tr>
<tr><td>IATA</td><td></td><td></td></tr>
<tr><td>ICAO</td><td></td><td></td></tr>
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<tr><td>ATS OPERATIONAL PROCEDURES</td><td></td><td></td></tr>
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<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td>Rerouting scheme</td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td></td><td></td><td></td></tr>
<tr><td>Separation standards LAT LONG</td><td></td><td></td></tr>
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</table>

Separation standards Vertical		
ATFM Flow Control		
Capacity Restrictions/Limitations		
Level Restrictions or FLAS		
Airspace Classification		
Transfer of Control		
Position Reporting TIBA		
Overflight Permissions		
Instructions for Overflying traffic		
Procedures for flights to/from airports inside [Name of States]		
Filing of flight plans		
Pilot operating procedures		
Prior Permission Required (PPR)		
Interception of civil aircraft		
Airport impacts		

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<table>
<tr><td colspan="3">[ACC]
Contingency Arrangements (CR5)

This playbook contains arrangements to ensure the continued safety of flight operations during the disruption. The plan has been prepared in accordance with ICAO Annex 11 ─ Air Traffic Services, Chapter 2, paragraph 2.32 and Attachment C to provide the ATS procedures, contingency route structure, and other arrangements, to be used on a temporary basis, while air traffic services are being provided from [ACC NAME] ACC but with some limitation than normal situation.</td></tr>
<tr><td>Airspace Available or limited</td><td>Full loss of ATS</td><td>Name:</td></tr>
<tr><td>Due to: (select from risk register what to apply)</td><td>Date:</td><td>Time:</td></tr>
<tr><td>ATCO shortage (or strike)
ATM System failure
VAC
Natural Disaster
Power supply/infrastructure failure</td><td>SUR infrastructure not available
COM infrastructure not available
NAV infrastructure not available
Political unrest
Conflict zone</td><td>GNSS interference/spoofing
Cyber attack
Weather
Airport unavailability
Other (e.g. SWX space weather, Pandemic, fuel shortage)</td></tr>
<tr><td>Conditions: (depending on the percentage of impacted ATS operations, a description of “What has to be done to solve the issue by whom and when ” has to be defined)</td><td colspan="2"><table>
<tr><td>Degradation of ATS</td><td>0%</td><td>50%</td><td>100%</td></tr>
<tr><td></td><td></td><td></td><td></td></tr>
<tr><td>Level 1 - internal/national</td><td></td><td></td><td></td></tr>
<tr><td>Level 2 – involving adjacent States</td><td></td><td></td><td></td></tr>
<tr><td>Level 3 – multiple States in the Region</td><td></td><td></td><td></td></tr>
<tr><td>Level 4 – multiple States inter-regional</td><td></td><td></td><td></td></tr>
</table></td></tr>
<tr><td>Explain the cause:</td><td colspan="2"></td></tr>
<tr><td colspan="2">Actions</td><td>Status</td></tr>
<tr><td>Adjacent ACCs</td><td>Contact</td><td></td></tr>
<tr><td>ACC A</td><td></td><td></td></tr>
<tr><td>ACC B</td><td></td><td></td></tr>
<tr><td>ACC C</td><td></td><td></td></tr>
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Separation standards Vertical		
ATFM Flow Control		
Capacity Restrictions/Limitations		
Level Restrictions or FLAS		
Airspace Classification		
Transfer of Control		
Position Reporting TIBA		
Overflight Permissions		
Instructions for Overflying traffic		
Procedures for flights to/from airports inside [Name of States]		
Filing of flight plans		
Pilot operating procedures		
Prior Permission Required (PPR)		
Interception of civil aircraft		
Airport impacts		

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[ACC]

Contingency Arrangements (CR6A and CR6B)
CAT 6

CA 6A for contingency events x
CA 6B for contingency events y

This playbook contains arrangements to ensure the continued safety of flight operations during the disruption. The plan has been prepared in accordance with ICAO Annex 11 ─ *Air Traffic Services,* Chapter 2, paragraph 2.32 and Attachment C to provide the ATS procedures, contingency route structure, and other arrangements, to be used on a temporary basis, while air traffic services are being provided from **[ACC NAME]** ACC but with some limitation than normal situation.

Airspace NOT Available	**ATS normal or degraded or not available**	Name:
Due to: (select from risk register what to apply)	Date:	Time:
ATCO shortage (or strike) ATM System failure VAC Natural Disaster Power supply/infrastructure failure	SUR infrastructure not available COM infrastructure not available NAV infrastructure not available Political unrest Conflict zone	GNSS interference/spoofing Cyber attack Weather Airport unavailability Other (e.g. SWX space weather, Pandemic, fuel shortage)
Conditions: (depending on the percentage of impacted ATS operations, a description of "What has to be done to solve the issue by whom and when " has to be defined)		

Degradation of ATS	0%	50%	100%
Level 1 - internal/national			
Level 2 – involving adjacent States			
Level 3 – multiple States in the Region			
Level 4 – multiple States inter-regional			

Explain the cause:		
Actions		**Status**
Adjacent ACCs	Contact	
ACC A		
ACC B		
ACC C		
IATA		
ICAO		
ATS OPERATIONAL PROCEDURES		
Issuing NOTAM		
Rerouting scheme		

Separation standards LAT LONG		
Separation standards Vertical		
ATFM Flow Control		
Capacity Restrictions/Limitations		
Level Restrictions or FLAS		
Airspace Classification		
Transfer of Control		
Position Reporting TIBA		
Overflight Permissions		
Instructions for Overflying traffic		
Procedures for flights to/from airports inside [Name of States]		
Filing of flight plans		
Pilot operating procedures		
Prior Permission Required (PPR)		
Interception of civil aircraft		
Airport impacts		
Search and Rescue		

— END —