INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE THIRD MEETING OF THE AIRSPACE MANAGEMENT WORKING GROUP

ASM WG/3

(Virtual, 21 – 22 January 2026)

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

Approved by the Meeting
and published by authority of the Secretary General

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TABLE OF CONTENTS

PART I - HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The Third Meeting of the Airspace Management Working Group (ASM WG/3) was held virtually on 21 and 22 January 2026, using MS Teams platform.

2. OPENING

2.1 The meeting was opened by Mr. Saqr Obaid Al Marashda, Senior Manager Airspace Management, General Civil Aviation Authority, UAE and Chairperson of the ASM Working Group. Mr. Al Marashda thanked ICAO for organizing this important meeting. Also, he extended a warm welcome to all participants and wished them a successful meeting.

3. ATTENDANCE

3.1 The meeting was attended by a total of forty-one (41) participants from twelve (12) States (Bahrain, Egypt, Iraq, Jordan, Kuwait, Libya, Oman, Qatar, Saudi Arabia, UAE and Yemen) and three (3) Organizations (ICAO MID, IATA and EUROCONTROL). The list of participants is at **Attachment A**.

4. OFFICERS AND SECRETARIAT

4.1 Mr. Ahmad Kavehfirouz, Regional Officer, Air Traffic Management (RO/ATM) and Mr. Ahmad Amireh, Regional Officer, Air Traffic Management and Search and Rescue (RO/ATM/SAR) were the Secretaries of the meeting.

5. LANGUAGE

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

6. AGENDA

6.1 The following Agenda was adopted:

Agenda Item 1: Adoption of the Provisional Agenda

Agenda Item 2: ASM Developments:

- Follow up on the outcomes of the previous meetings
- Progress and update from States/Organizations
- Review and update the ASM Action Plan

Agenda Item 3: Future Work Programme

Agenda Item 4: Any other business

7. CONCLUSIONS AND DECISIONS – DEFINITION

7.1 The MIDANPIRG records its actions in the form of Conclusions and Decisions with the following significance:

a) **Conclusions** deal with matters that, according to the Group's terms of reference, merit directly the attention of States, or on which further action will be initiated by the Secretary in accordance with established procedures; and

b) **Decisions** relate solely to matters dealing with the internal working arrangements of the Group and its Sub-Groups.

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: PROVISIONAL AGENDA

1.1 The subject was addressed in WP/1, presented by the Secretariat. The meeting reviewed and adopted the Agenda as at paragraph 6 of the History of the Meeting.

REPORT ON AGENDA ITEM 2: ASM DEVELOPMENTS

Follow-up on the Outcomes of the Previous Meetings (MIDANPIRG/22, ATM SG/11 and ASM WG/2 meetings)

2.1 The subject was addressed in WP/2, presented by the Secretariat.

2.2 The meeting noted the follow-up actions on the list of Conclusions and Decisions from MIDANPIRG/22, and the tasks emanating from the ATM SG/11 at **Appendix 2A**.

Optimization of MID Region ATS Route Designator

2.3 The subject was addressed in WP/3, presented by the Secretariat.

2.4 The meeting noted the Traffic Data Sample (TDS) provided by the MID States to MIDRMA in 2025, as well as the proposal related to optimization of MID region ATS route designator developed by Secretariat at **Appendix 2B**. The meeting agreed that further review of the proposals should be done by relevant States and provide their feedback to the ASM WG/4 meeting to draft the required PfA.

ATS Route Designator Changes in accordance with MID ANP Volume II

2.5 The subject was addressed in WP/4, presented by the Secretariat.

2.6 The meeting noted with appreciation the actions taken by MID States to revise their national documents in line with the approved PfAs and to eliminate the prefix "U" associated with MID ANP Volume II, ATS table. Furthermore, the meeting urged the remaining States to finalize this action and submit the necessary updates to ICAO MID before the ASM WG/4 meeting.

Project 30/10 Implementation of Reduced Longitudinal Separation in the MID Region

2.7 The subject was addressed in WP/5, presented by the Secretariat.

2.8 The meeting noted and updated the current status of the longitudinal separation implemented between adjacent FIRs in the MID region as detailed by common FIR boundary points at **Appendix 2C**. The meeting also encouraged MID States to initiate communication with adjacent FIRs which are subject to reduction of longitudinal separation in line with MIDANPIRG Conclusion 22/11 and provide the required update to ICAO MID.

2.9 The meeting also encouraged MID States to take advantage of the Special Coordination Meeting which will be held in Muscat, Oman, 1-5 February 2026, to conduct required meetings with their adjacent FIRs regarding common operational issues and challenges specifically reduction of longitudinal separation and optimization of their FIR boundaries since delegates from other regions mainly Europe, APAC as well as airspace users will be involved in this meeting.

Project 30/10 Roadmap

2.10 The subject was addressed in WP/6, presented by the Secretariat.

2.11 The meeting recalled MIDANPIRG Decision 22/10 regarding development of Project 30/10 roadmap. The meeting also noted the list of applicable separation related to implementation of this project in the MID region as detailed at **Appendix 2D** along with the proposed criteria and action plan outlined in **Appendix 2E** for development of roadmap. Accordingly, the meeting agreed to establish Action Group with the following members to develop draft roadmap until end of April 2026, which will be reviewed by the ASM WG/4 prior to its presentation to the MIDANPIRG/23.

- Egypt CAA	Mr. Mohamed Ali
- Oman CAA	Ms. Hanaa Sultan Al-Maskary
- Qatar CAA	Ms. Pamela Erice
- ASM Chairperson	Mr. Saqr Obaid Al Marashda
- IATA	Ms. Zainab Khudhair
- ICAO MID	Mr. Ahmad Kaveh

MID eANP, Volume II, Part I, Table GEN II- 1-Homogeneous Areas and Major Traffic Flows identified in the Region

2.12 The subject was addressed in WP/7, presented by the Secretariat.

2.13 The meeting noted the proposal related to MID ANP, Volume II, Part I, Table GEN II-1 (Homogeneous areas and major traffic flows in the MID Region) and tasked Secretariat to develop draft PfA in accordance with the content of the table at **Appendix 2F,** which will be reviewed by ASM WG/4 prior its presentation to MIDANPIRG/23 for further decision.

Proposal for Amendment to the MID eANP volume II, FICE B0/1 (AIDC/OLDI) applicability area

2.14 The subject was addressed in WP/8, presented by the Secretariat.

2.15 The meeting noted the following criteria agreed upon by the ATM SG/10 to determine MID Priority 1 FICE/01 (AIDC/OLDI) applicability area.

a) if the traffic exchange rate between two adjacent ACCs has exceeded 30 flights per hour; or
b) if two consecutive FIRs implemented longitudinal separation 10 NM or less at common FIR boundary point(s); or
c) if two adjacent FIRs implemented cross border Free Route Airspace (FRA); or
d) if the number of LHD recorded by MIDRMA related to adjacent ACCs has exceeded 10 reports per month and it lasts for more than 6 months; or
e) if traffic movement at the common FIR boundary significantly increased during contingency situations; or
f) where decided by both concerned States.

2.16 Accordingly, the meeting agreed on MID Priority 1 FICE/01 (AIDC/OLDI) applicability area table at **Appendix 2G** and tasked the Secretariat to develop required PfA to be presented to MIDANPIRG/23.

FF-ICE Roadmap

2.17 The subject was addressed in WP/9, presented by the Secretariat.

2.18 The meeting noted that the Flight and Flow — Information for a Collaborative Environment (FF-ICE) is a transformative initiative designed to overcome the limitations of the current ICAO 2012 flight plan system (FPL 2012). FF-ICE is a key enabler of ICAO's Global Air Traffic Management Operational Concept (GATMOC), which aims to achieve an integrated, harmonized, and globally interoperable air traffic management system.

2.19 The meeting also noted the outcomes of the ICAO APAC MID FF-ICE Seminar, which was successfully conducted in Dubai, during the period 23 – 26 February 2025, as well as FF-ICE workshop which was conducted during ATM SG/11 and CNS SG/14 meetings in Abu Dhabi, UAE.

2.20 The meeting recalled regional regulatory framework related to FF-ICE developed by Qatar CAA, at **Appendix 2H**, to support States in the Region in developing harmonized national requirements for the implementation of FF-ICE, in alignment with applicable ICAO provisions.

2.21 Regarding development of the MID region FF-ICE roadmap, the meeting agreed to establish Action Group with the following members to develop the required Survey aimed at analyzing the status of MID States for the implementation of FF-ICE requirements by end of April 2026. The result of the survey and analysis will be reviewed by ASM WG/4 prior to its presentation at MIDANPIRG/23 for further decision.

- Egypt CAA — Mr. Mohamed Ali
- Qatar CAA — Mr. Ramy Saad
- UAE CAA — Mr. Hamad Al Belushi and Mr. Hamed Al Zubaidi
- ASM Chairperson — Mr. Saqr Obaid Al Marashda
- IATA — Ms. Zainab Khudhair
- ICAO MID — Mr. Ahmad Kaveh

Review and Update the ASM Action Plan

2.22 The subject was addressed in WP/10, presented by the Secretariat.

2.23 The meeting reviewed and updated the MID ASM Action Plan at **Appendix 2I**.

REPORT ON AGENDA ITEM 3: FUTURE WORK PROGRAMME

Terms of Reference and List of FPs and Date and Venue of the ASM WG/4 Meeting

3.1 The subject was addressed in WP/11 presented by the Secretariat.

3.2 The meeting reviewed the Airspace Management Working Group Terms of Reference, as at **Appendix 3A** and agreed that they are still current.

3.3 The meeting reiterated the importance of designation of Focal Points to support the work of the ASM WG. The ASM WG List of Focal Points is at **Appendix 3B**.

3.4 The meeting agreed that the ASM WG/4 meeting will be held in May 2026 before the MIDANPIRG/23 meeting. The exact dates will be coordinated between the ICAO MID Office and the Chairperson of the ASM Working Group.

REPORT ON AGENDA ITEM 4: ANY OTHER BUSINESS

4.1 Nothing has been discussed under this Agenda Item.

APPENDICES

FOLLOW-UP ON MIDANPIRG/21 & 22 CONCLUSIONS & DECISIONS

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C.21/5	**OPTIMIZATION OF MID REGION ATS ROUTE DESIGNATOR** *That, the ICAO MID Office:* *a) 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 Regional Offices; and* *b) process required Proposal for Amendment (PfA) to the MID eANP Vol II, Table ATM II-MID-I*	Harmonize the use of ATS Route designators	PfA for revised ANP Vol II table ATM II-MID-1	MID States	2024	On going (WP/3 refer)
D.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.*	Optimize the Longitudinal separation between FIRs	Project 30/10 implementation roadmap	MID States	2026	On going (WP/6 refer)
C.22/11	**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 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.*	Optimize the Longitudinal separation between FIRs	Revised LoA	MID States	2026	On going (WP/5 refer)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
D.22/12	**AIRSPACE MANAGEMENT WORKING GROUP (ASM WG) TERMS OF REFERENCE** *That, the Terms of Reference of the Airspace Management Working Group, at Appendix 5H, is endorsed.*	Required to identify the Working Group scope of activities	Terms of Reference	ASM WG	2025	Completed
C.22/13	**FREE ROUTE IMPLEMENTATION GUIDANCE MATERIAL** *That, the Guidance material for Free Route implementation at Appendix 5I, is endorsed.*	To support MID States for implementation of FRA	Guidance material for development of FRA	MID States	2025	Completed

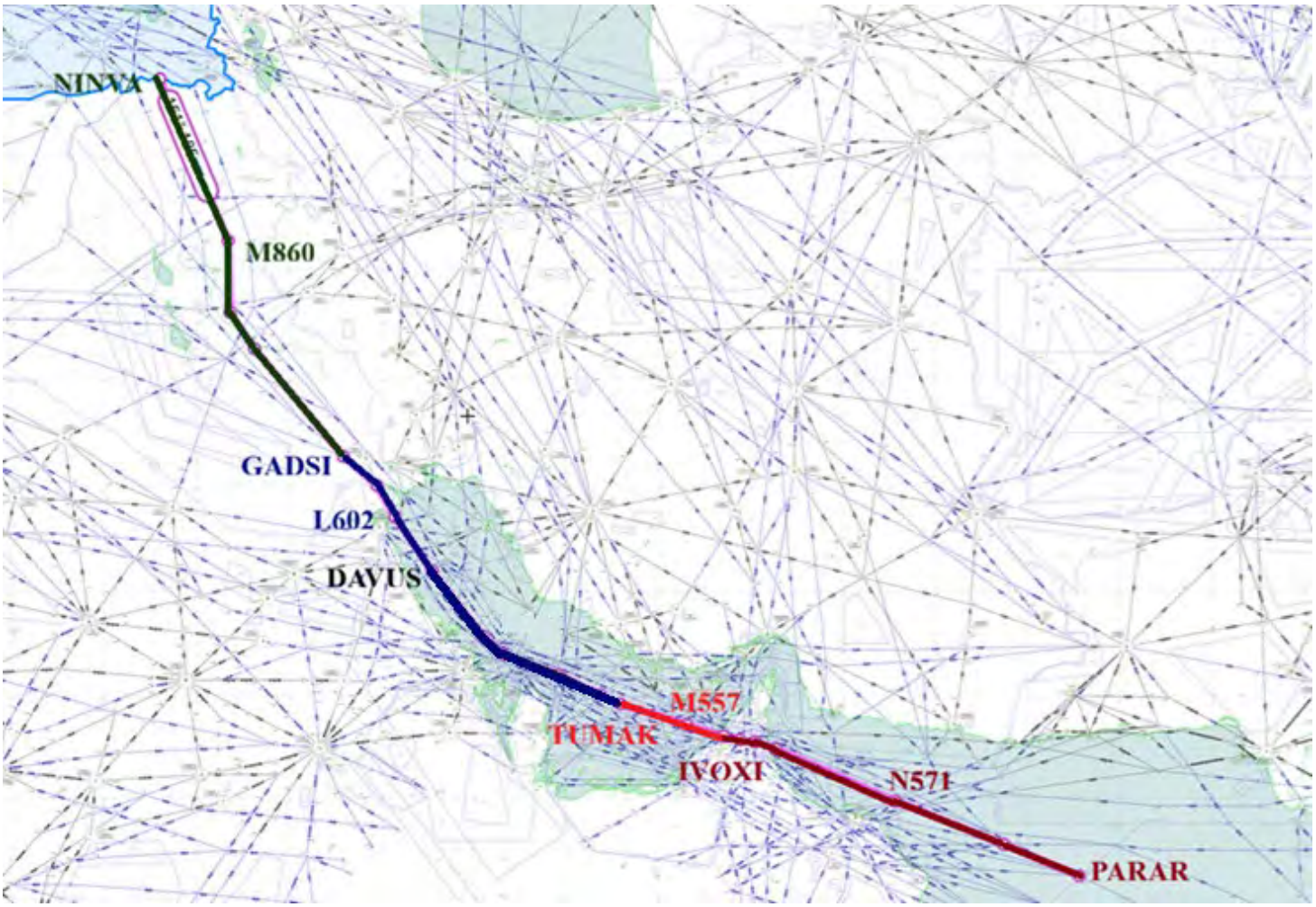
FOLLOW-UP ON ATM SG/11 DRAFT CONCLUSIONS & DECISIONS

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
DC.11/2	**PROPOSAL FOR AMENDMENT TO THE MID eANP VOLUME II, PART I, TABLE GEN II-1** *That, the ICAO MID Office follow the process of the required Proposal for Amendment (PfA) to revise MID eANP, Volume II, Part I, Table GEN II- 1(Homogeneous areas and major traffic flows identified in the Region).*	Keep update related table in MID ANP Volume II	Draft PfA	ASM WG	2026	On going (WP/7 refer)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
DC.11/3	**PROPOSAL FOR AMENDMENT TO THE MID eANP VOLUME II, FF-ICE B0/1 (AIDC/OLDI) APPLICABILITY AREA** That, the ICAO MID Office follows the process of the required Proposal for Amendment (PfA) to revise AIDC/OLDI applicability area priority 1 in ANP Volume II.	Keep update related table in MID ANP Volume II based on operational needs	Draft PfA	ASM WG	2026	On going (WP/8 refer)
DC.11/4	**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* *i. monitor the progress of implementation and undertakes necessary measures to promote its advancement.* *ii. develop a 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.*	Optimize the Longitudinal separation between FIRs	Revised LoA	MID States		On going (WP/5 refer)

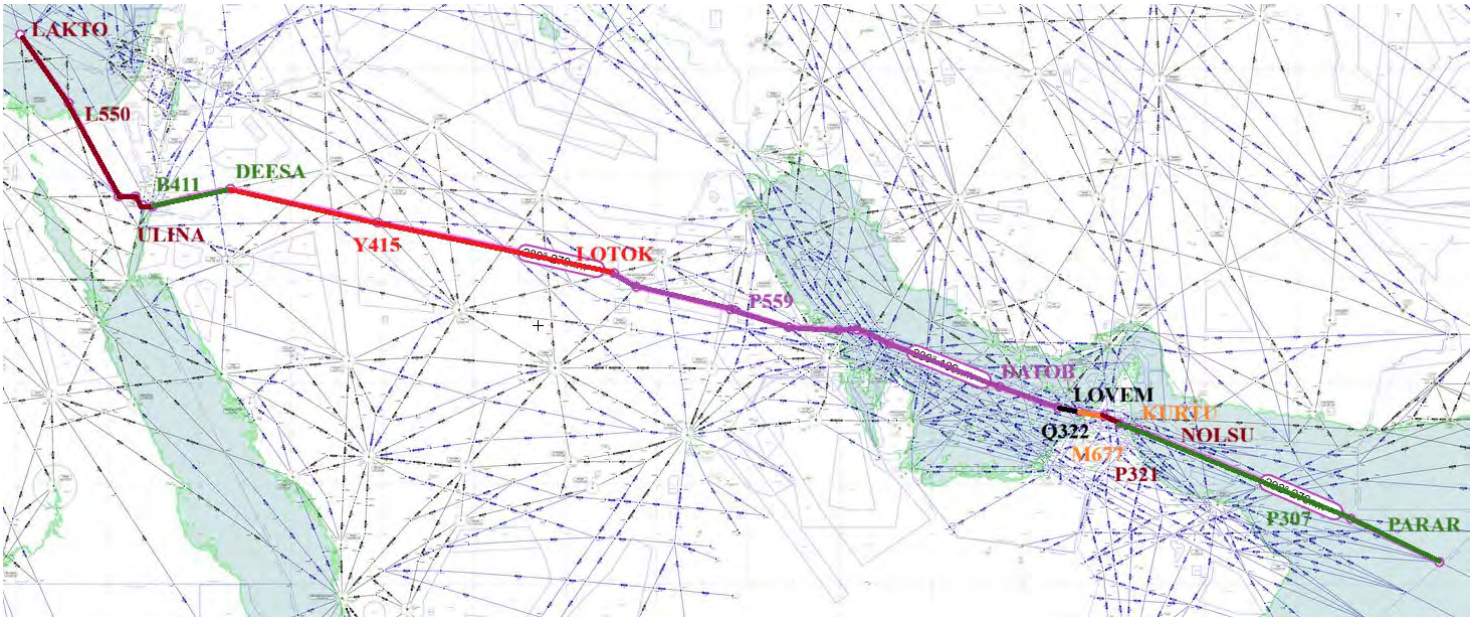
1- PARAR (Muscat/Mumbai) - N571 – MENSA (Muscat/UAE) – N571 - IVOXI (UAE) – M557 – TUMAK (UAE/Bahrain/Doha) - N702 – DAVUS (Bahrain/Kuwait) – L602 – TASMI (Kuwait/Baghdad) – L602 – GADSI – M860 – NINVA.

Route designator was changed 4 times.



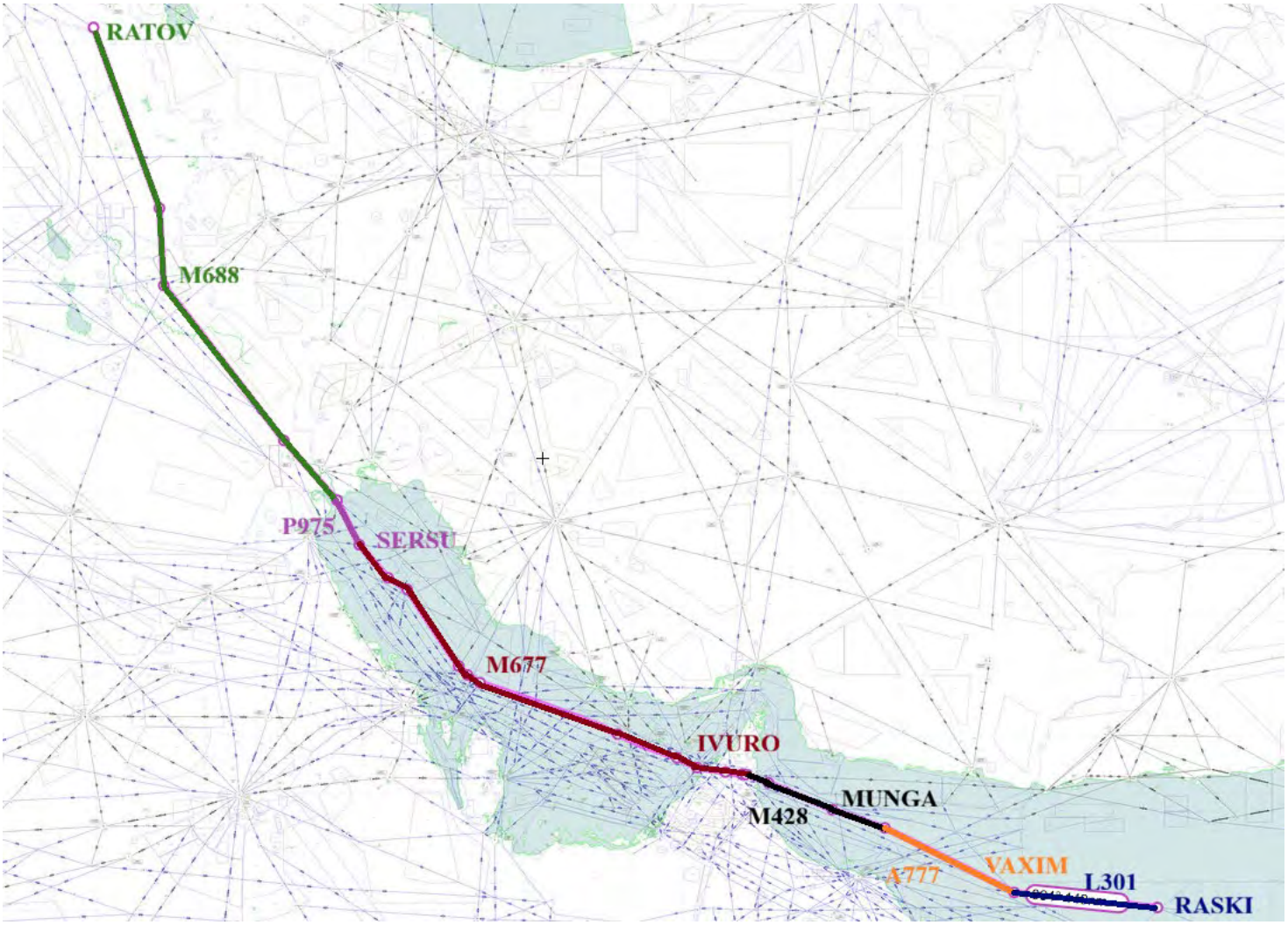
2- LAKTO (Cairo/Nicosia) – L550 – ULINA (Cairo/Amman) – B411 – DEESA (Amman/Jeddah) – Y415 – LOTOK (Jeddah) – P559 – DATOB (UAE) – Q322 LOVEM (UAE) – M677 – KURTU (UAE) – P321 – NOLSU (UAE) – P307 – PARAR (Muscat/Mumbai)

Route designator was changed 8 times.



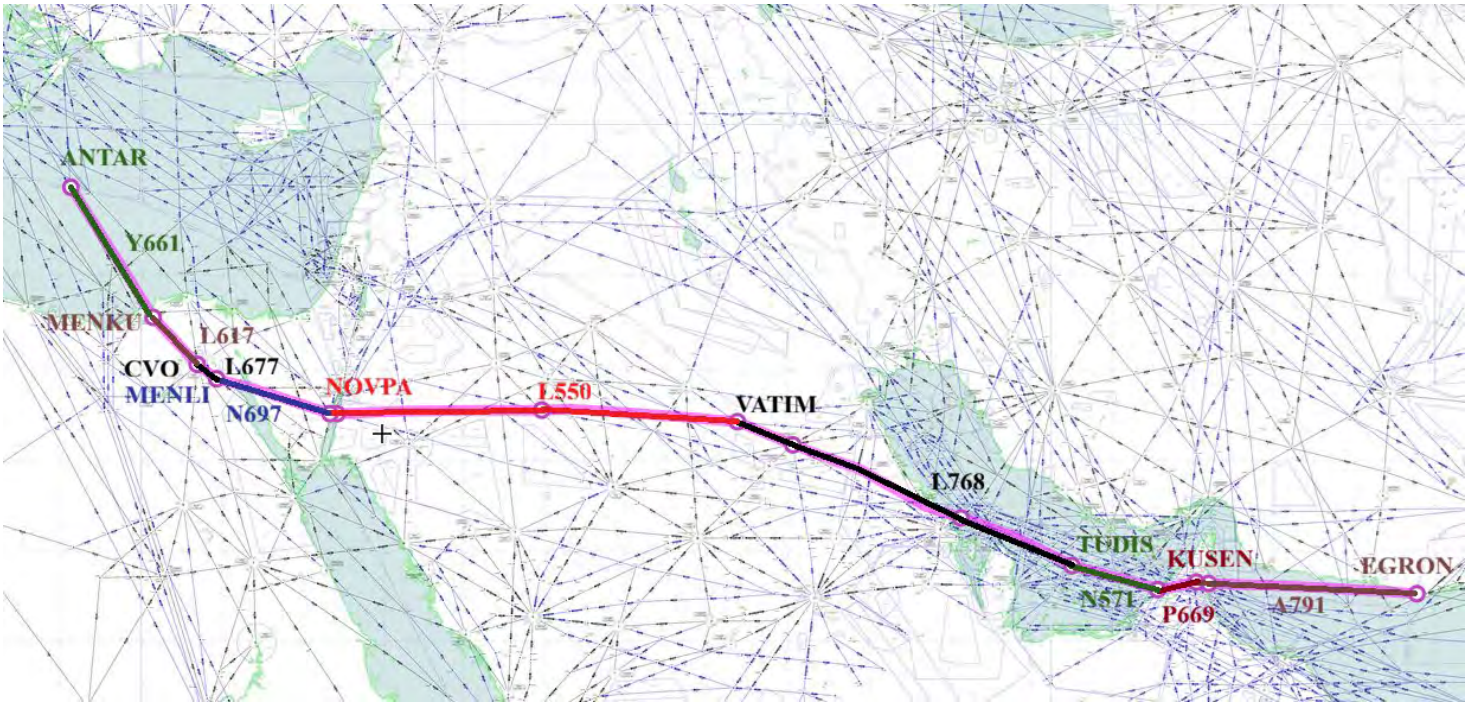
3- RATOV (Ankara/Baghdad) - M688 – SIDAD (Baghdad/Kuwait) – P975 – SERSU (Kuwait) – M677 – IVURO (UAE) – M428 – MUNGA (Muscat) – A777 – VAXIM (Muscat) – L301 – RASKI (Muscat/Mumbai).

Route designator was changed 6 times.



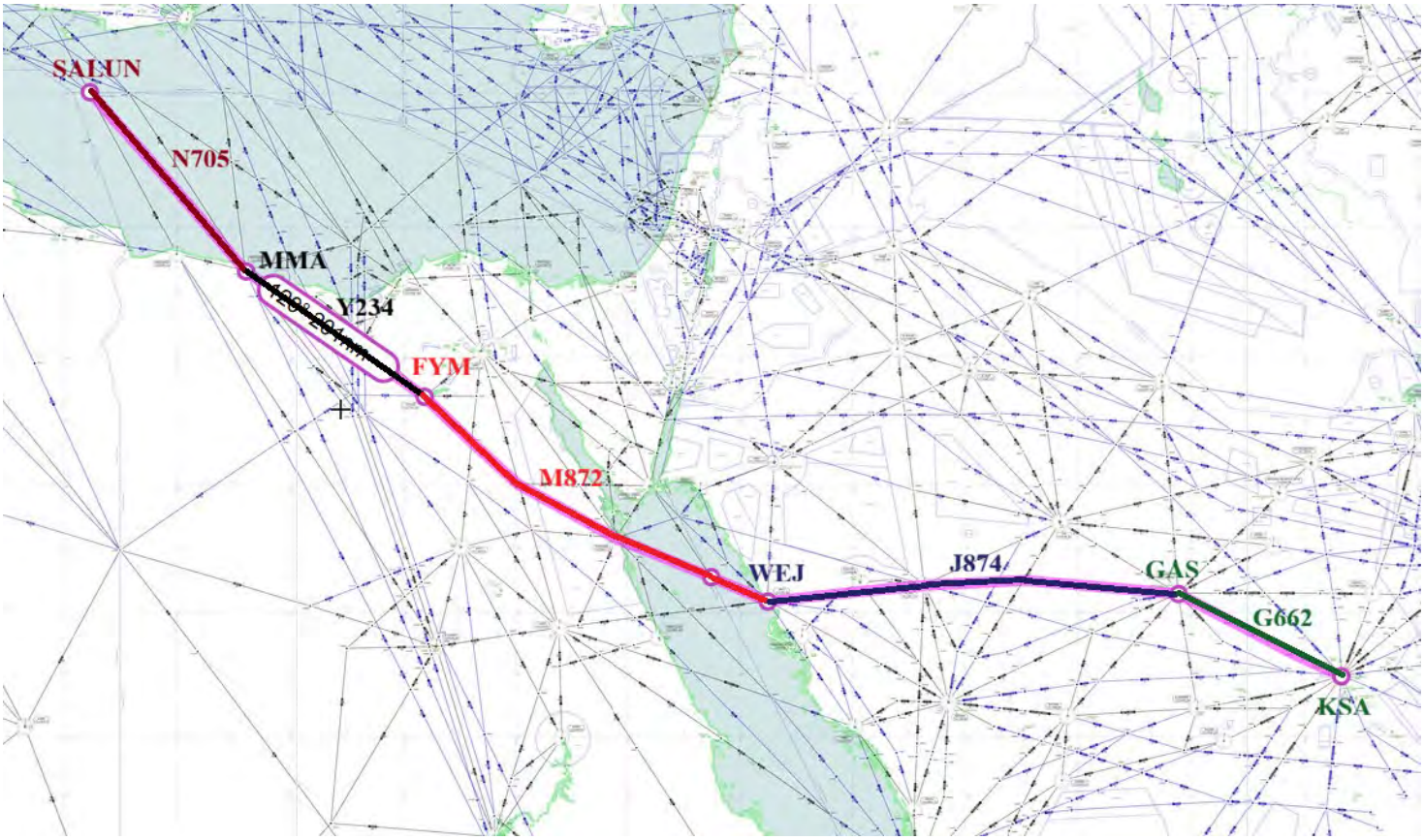
4- EGRON (Karachi/Tehran) - A791 – KUSEN (Muscat/UAE) – P669 – TUDIS (UAE) -N571 – ALPOB (UAE/Bahrain/Doha) L768 - VATIM (Jeddah) - L550 - NOVPA (Cairo) - N697 – MENLI (Cairo) - L677 - CVO (Cairo) - L617 - MENKU (Cairo) - Y661 – ANTAR (Cairo/Athens).

Route designator was changed 9 times.



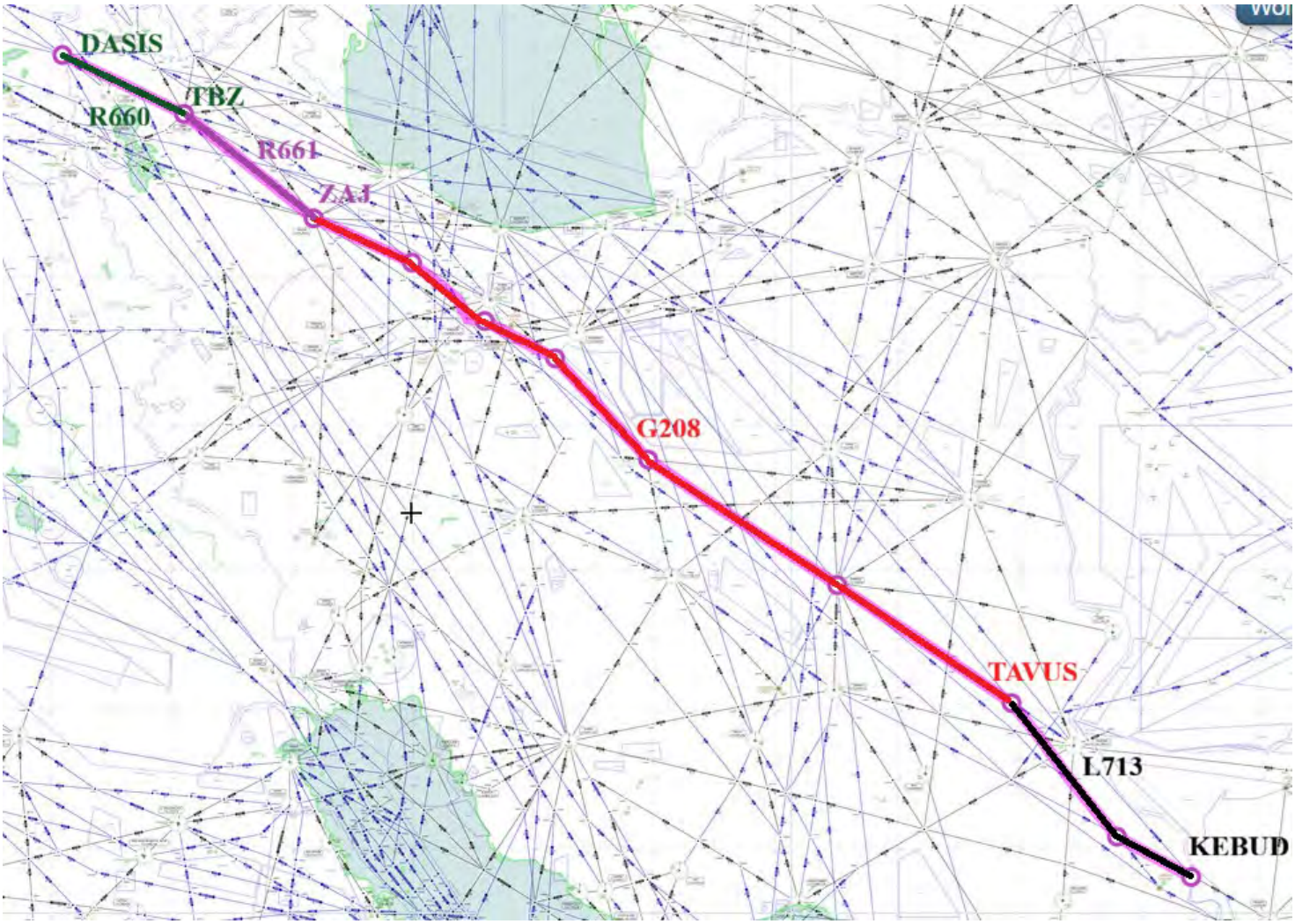
5- SALUN (Athens/Cairo) - N705 – MMA (Cairo) – Y234 - FYM (Cairo) - M872 - WEJ (Jeddah) - J874 - GAS (Jeddah) - G662 – KSA (Jeddah).

Route designator was changed 5 times.



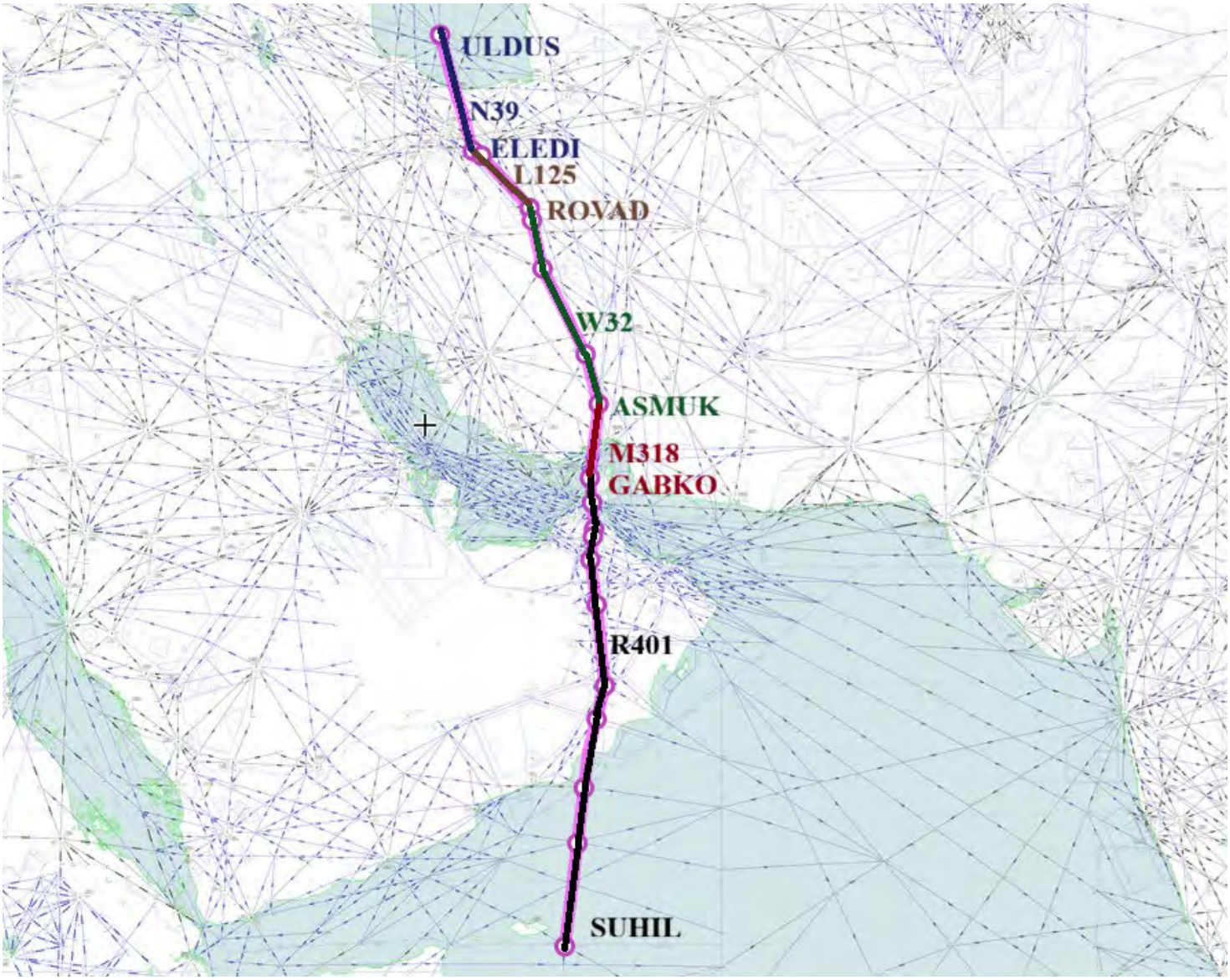
6- KEBUD (Karachi/Tehran) - L713 – TOVUS (Tehran) - G208 - ZAJ (Tehran) - R661 - TBZ (Tehran) - R660 DASIS (Tehran/Ankara).

Route designator was changed 4 times.



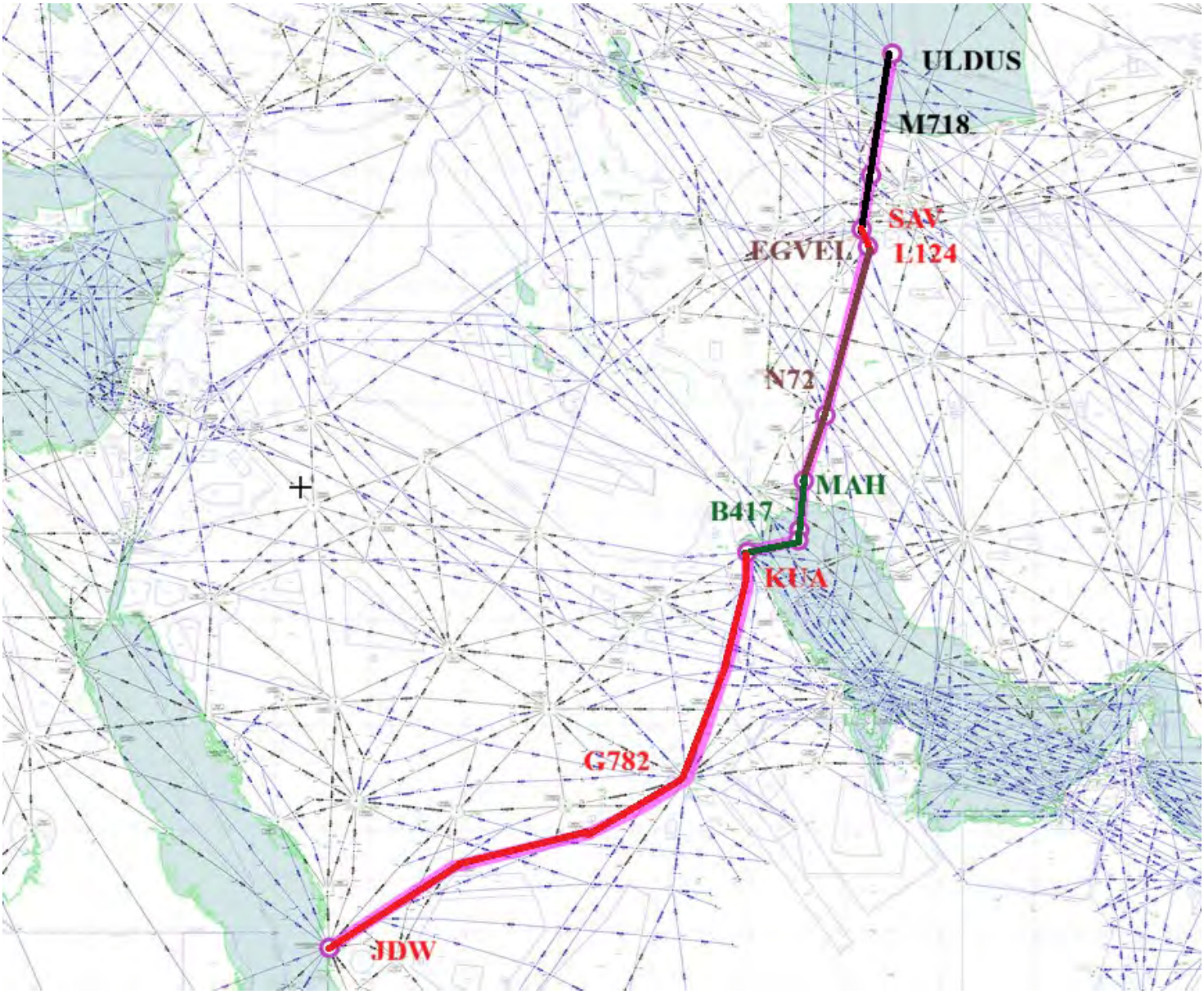
7- SUHIL (Mogadishu/Sana'a) - R401 - GABKO (UAE/Tehran) – M318 – ASMUK (Tehran) – W32 – ROVAD (Tehran) – L125 – ELEDI (Tehran) – N39 – ULDUS (Tehran/Baku).

Route designator was changed 5 times.



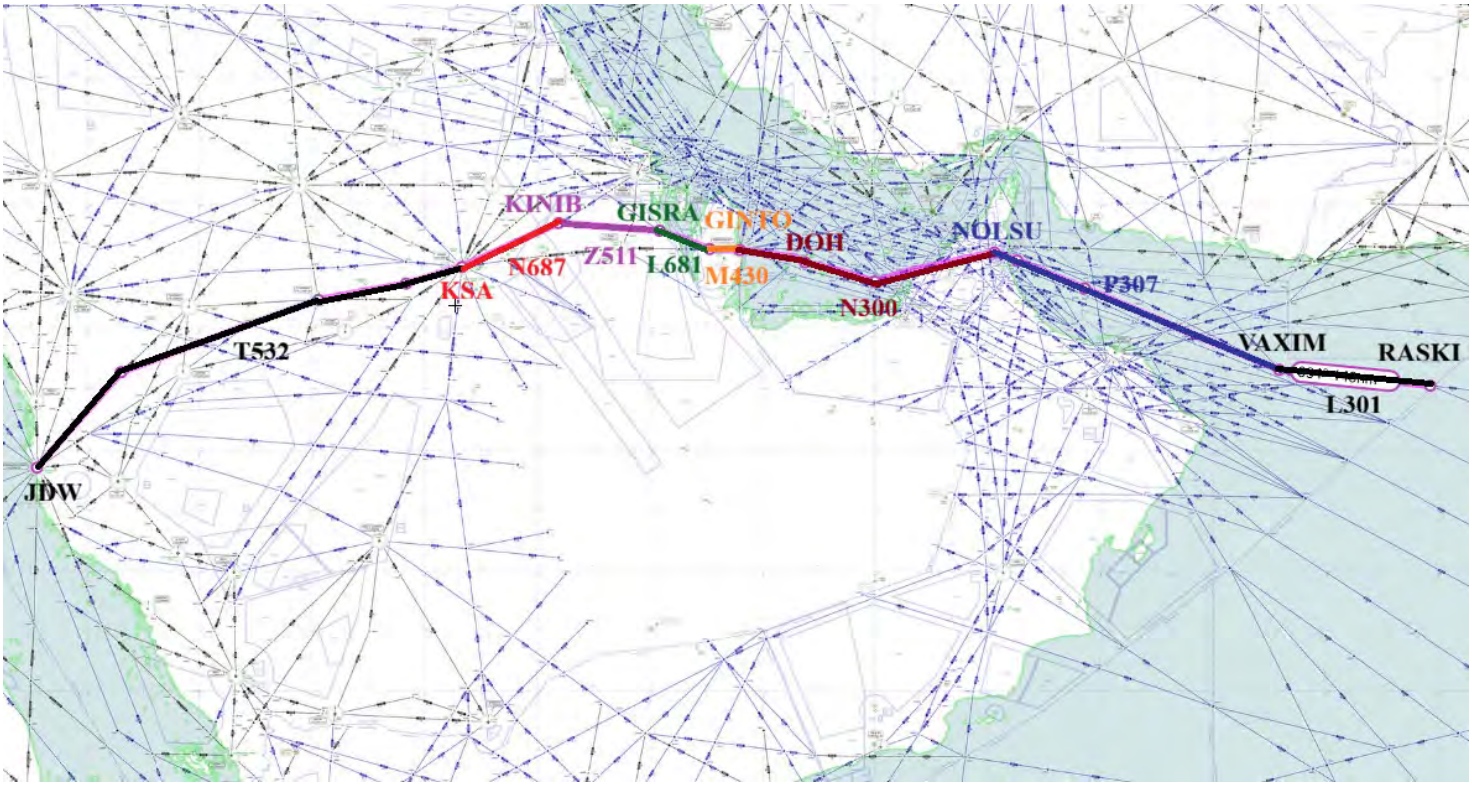
8- ULDUS (Baku/Tehran) - M718 - SAV (Tehran) - L124 - EGVEL (Tehran) - N72 - MAH (Tehran) - B417 - KUA (Kuwait) - G782 – JDW (Jeddah).

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 at common FIR boundaries

Bahrain	Iran					Kuwait					Qatar		Saudi Arabia							UAE			
	ROTOX	OBTAR	KUVER	ALSER	DASUT	KUMBO	DAVUS	LONOS	RABAP	AMBIK	TULUB	LUBET	DAROR	METLA	ULADA	ROTEL	LADNA	NARMI	DEMTA	TUMAK	ALPOB	NALPO	OBNET
Separation	20	20	20	20	20	10	20	10	10	10	8	8	10	10	10	10	10	10	10	8	8	8	8
No Traffic per year																							

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	ALEBA	ENABU	ATMUL	NUBAR	SISID
Separation	20	20	20	20	20	20	20	20	20	15	80	80	20	15	15	80	40	80	80	80	80	80
No Traffic per year																						

Iran	Afghanistan				Armania	Azerbaijan					Iraq			Bahrain					Kuwait			Oman					Pakistan						Qatar				Turkey						Turkmenistan						UAE				
	PAMTU	RANRU	SOKAM	KAMAR	MAGRI	BATEV	ULDUS	LALDA	PARSU	DULAV	PAXAT	RAGET	BOXIX	ROTOX	OBTAR	KUVER	ALSER	DASUT	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	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
No Traffic per year																																																					

Iraq	Iran			Jordan	Kuwait		Saudi Arabi	Syria			Turkey		
	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
No Traffic per year													

Jordan	Egypt	Iraq	Israel		Saudi Arabia						Syria					
	ULINA	PASIP	OSAMA	MOUAB	TRF	DEESA	GIBET	TULEP	GENEX	OTILA	BUSRA	ZELAF	SOKAN	NAMBO	KAMEL	TAN
Separation	15	80	10	10	10	10	10	10	10	10	80	80	80	80	80	80
No Traffic per year																

Kuwait	Bahrain					Iran			Iraq		Saudi Arabia				
	KUMBO	DAVUS	LONOS	RABAP	AMBIK	TULAX	NANPI	PATIR	SIDAD	TASMI	BOSID	GOVAL	DERKO	COPPI	RAS
Separation	10	20	10	10	10	20	20	20	10	20	20	20	20	20	20
No Traffic per year															

Lebanon	Cyprus					Syria	
	LITAN	ELIKA	DIRRE	KUKLA	BALMA	LEBOR	LATEB
Separation	30	30	30	30	30	80	80
No Traffic per year							

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
No Traffic per year																						

Oman	India							Iran					Pakistan			Saudi Arabia						UAE															Yemen				
	RASKI	PARAR	TOTOX	REXOD	LOTAV	KITAL	ASPUX	DENDA	IMLOT	MESPO	ULDUN	IVIVA	APELO	TAPDO	ALPOR	MIDGU	TOKRA	DAPOL	SITOL	IMDAM	GOBRO	LALDO	GOMTA	TONVO	MENSA	PASOV	SOLUD	TAPRA	TARDI	MUSAP	ITRUX	LABRI	RETAS	SODEX	MEMTU	LUDID	KIVEL	IMKAD	KAPET	PUTRA	SABEL
Separation	20	50	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
No Traffic per year																																									

Qatar	Bahrain		Iran				Saudi Arabia				UAE										
	TULUB	LUBET	DASUT	MIDSI	RAGAS	ELIDU	ULIKA	ORLEK	LADBO	DENSI	BUNDU	KUPRO	TOSNA	OVONA	TOVOX	ALPOB	TUMAK	ORMID	ASTOG	NALPO	OBNET
Separation	8	8	20	10	20	20	10	10	10	10	8	8	8	8	8	8	8	8	8	8	8
No Traffic per year																					

Saudi Arabia	Bahrain							Egypt					Eritrea		Iraq	Jordan						Kuwait					Oman						Qatar				Sudan			UAE				Yemen														
	DAROR	METLA	ULADA	ROTEL	LADNA	NARMI	DEMTA	KITOT	PASAM	IMRAD	GIBAL	DEDLI	RASKA	KOBAS	MURIB	TRF	DEESA	GIBET	TULEP	GENEX	OTILA	BOSID	GOVAL	DERKO	COPPI	RAS	MIDGU	TOKRA	DAPOL	SITOL	IMDAM	GOBRO	ULIKA	ORLEK	LADBO	DENSI	MIPOL	KAROX	GIBAP	MUXIT	TANSU	RIBOT	PEKEM	DUDRI	SILPA	ALNES	PADUR	ALSIR	NADKI	ULBON	NETAS	NOBSU	NABAN	NISMI	LAKNA	RIBOK	APDOS
Separation	10	10	10	10	10	10	10	20	15	15	80	40	80	80	10	10	10	10	10	10	10	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	80	80	80	80
No Traffic per year																																																									

Sudan	Congo	Chad							Egypt					Eritrea			Ethopia						Libya	Kenya	Uganda		
	ASKON	IPONO	GNA	ILBIB	KISAL	KURAM	MONAN	KAFIA	ALEBA	ENABU	ATMUL	NUBAR	SISID	TOKRA	FEREB	KSL	ALRAP	TIKAT	AVONO	DASTU	AXOTI	DAGAP	ORNAT	EPLAS	ATUGA	OVELA	KABLA
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
No Traffic per year																											

Syria	Cyprus	Iraq			Jordan						Syria		Turkey			
	NIKAS	MODIK	SIDNA	ELEXI	BUSRA	ZELAF	SOKAN	NAMBO	KAMEL	TAN	LEBOR	LATEB	TUSYR	TUNLA	NISAP	LESRI
Separation	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80	80
No Traffic per year																

UAE	Iran					Oman															Qatar											Saudi Arabia				Bahrain			
	GABKO	PATAT	ORSAR	SIR	DAPER	LALDO	GOMTA	TONVO	MENSA	PASOV	SOLUD	TAPRA	TARDI	MUSAP	ITRUX	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
No Traffic per year																																							

Yemen	India			Eritrea		Ethopia		Oman					Saudi Arabia														Somalya						
	GADIS	NABIL	ANGAL	SALEH	FARES	TORBA	PARIM	KIVEL	IMKAD	KAPET	PUTRA	SABEL	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	80	80	80	80	80	80	80	80	80	80	80	80
No Traffic per year																																	

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	

Action Plan for implementation of Project 30/10

Priority factors:

a) if a common FIR boundary point in non-surveillance environment (at least on one side) is subject to longitudinal separation of 10 minutes (equivalent to 80 NM) or greater; or
b) if the large longitudinal separation over common FIR point imposes additional workload to ATCOs and flight crew which may have an impact on safety of traffic operation; or
c) if the common FIR point carries the main flows in the MID region and/or at interface with adjacent region(s) in accordance with MIDRMA report; or
d) if the common FIR boundary point is utilized for unidirectional operation and amount of movement reaches 90,000 or more per year, or
e) if the common FIR boundary point is utilized for bidirectional operation and amount of movement reaches 50,000 or more per year, or
f) if traffic movement at the common FIR boundary point significantly increases during contingency situations. or
g) where decided by both concerned States.

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	
	1.2	Follow up with States to submit required data and share with MID office		State Letter to MID States	ICAO MID		
	1.3	Consolidate States input and conduct Gap analysis		Draft Gap Analysis	MID States and ICAO MID		
	1.4	Prepare and present Gap analysis report to ATM SG for decision		Gap Analysis report	ICAO MID		
Prioritization of the project	**2.1**	Develop draft priority criteria		Draft list of priority criteria	ICAO MID	MIDANPIRG Conclusion 22/10	
	2.2	Review and approve priority criteria		list of priority criteria	ATM SG		
	2.3	Prioritize common FIR boundary points based on approved criteria in two phases		list of priority common FIR boundary points in two phases	ICAO MID		

Main action	Sub action		Target date	Deliverable	Champion	Reference	Status / RMK
	No.	Description					
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	
	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	

Main action	Sub action		Target date	Deliverable	Champion	Reference	Status / RMK
	No.	**Description**					
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	
	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	

TABLE GEN II-1 - HOMOGENEOUS ATM AREAS AND/OR MAJOR TRAFFIC FLOWS IDENTIFIED IN THE MID REGION

Column

1	Area of routing (AR)	Sequential number of area of routing
2	Homogeneous Areas and/or Traffic flows/ routing areas	Brief description and/or name
3	FIRs involved	List of FIRs concerned
4	Type of area covered	Brief description of type of area, examples: Oceanic or Continental High or low density Oceanic en-route or Continental en-route
5	Remarks	Homogeneous ATM Area and/or Major Traffic Flow and Region(s) concerned

Area of routing (AR)	Homogeneous Areas and/or Traffic flows/ routing areas	FIRs involved	Type of area covered	Remarks
1	2	3	4	5
AR1	Gulf and Europe	Baghdad, Bahrain, , Damascus, Doha, Emirates , Kuwait, Muscat, Tehran	Continental high density	Major departing and arriving Traffic Flow between Gulf and Europe Region
AR2	Gulf and Central Asia, Gulf and North America and North of Euro	Bahrain, Doha, Emirates, Jeddah, Kuwait, Muscat, Tehran	Continental Medium to high density especially during Hajj.	Mainly departing and arriving traffic to/from Gulf and Central Asia as well as intraregional overflight to North of Europe and America
AR3	Gulf and South of Europe, East of Mediterranean seas and Europe, as well as Gulf and North Africa	Amman, Baghdad, Bahrain, Beirut, Cairo, Damascus, Doha, Emirates, Jeddah, Kuwait, Muscat, Tripoli	Continental high density especially during Hajj.	Mainly regional departure and arrival as well as continental overflight between South of Europe and Gulf. Moreover, during contingency and closure of AR1 & AR2, this AR works as an alternate
AR4	Gulf and East/Southeast Asia and beyond	Amman, Bahrain, Doha, Emirates, Jeddah, Kuwait, Muscat, Tehran	Oceanic and Continental high density	Mainly regional departure and arrival as well as

Area of routing (AR)	Homogeneous Areas and/or Traffic flows/ routing areas	FIRs involved	Type of area covered	Remarks
			especially during Hajj.	continental overflight between Gulf and East/Southeast Asia.
AR5	Libya, Egypt, Sudan and Gulf to/from Europe, Africa and East/Southeast Asia	Bahrain, Cairo, Doha, Emirates, Jeddah, Khartoum, Muscat, Sana'a, Tripoli	Continental and oceanic low density to Medium density especially during Hajj	Major traffic flow mainly landing and departing the MID region. EUR/AFI traffic and North and East of Africa also using this airspace
AR6	Asia and Europe	Emirates, Muscat, Teheran	Continental high density	Major traffic flow ASIA/EUR

ANP Volume II, MID Region AIDC/OLDI Applicability Area (Priority 1 and 2 for Implementation)

ACC	Adjacent ACCs											
Amman	Baghdad (2)	Cairo (1)	Damascus (2)	Jeddah (1)	Riyadh (1)	Tel Aviv (2)						
Baghdad	Amman (2)	Ankara (1)	Damascus (2)	Jeddah (2)	Kuwait (1)	Riyadh (2)	Tehran (2)					
Bahrain	Doha (1)	Emirates (1)	Jeddah (1)	Kuwait (1)	Riyadh (1)	Tehran (1)						
Beirut	Damascus (2)	Tel Aviv (2)	Nicosia (2)									
Cairo	Amman (1)	Athena (1)	Jeddah (1)	Khartoum (2)	Nicosia (1)	Tel Aviv (2)	Tripoli (2)	Riyadh (2)				
Damascus	Amman (2)	Ankara (2)	Baghdad (2)	Beirut (2)	Nicosia (2)	Tel Aviv (2)						
Doha	Bahrain (1)	Emirates (1)	Jeddah (1)	Riyadh (1)	Tehran (1)							
Emiratis	Bahrain (1)	Doha (1)	Jeddah (1)	Muscat (1)	Riyadh (2)	Tehran (1)						
Jeddah	Amman (1)	Asmara (2)	Baghdad (2)	Bahrain (1)	Cairo (1)	Doha (1)	Emirates (1)	Khartoum (2)	Kuwait (1)	Muscat (1)	Riyadh (2)	Sana'a (2)
Riyadh	Amman (1)	Baghdad (2)	Bahrain (1)	Doha (1)	Emirates (2)	Kuwait (1)	Jeddah (2)	Muscat (2)	Sana'a (2)	Cairo (1)		
Khartoum	Addis (2)	Asmara (2)	Cairo (2)	Jeddah (2)	Juba (2)	N'Djamena (2)	Tripoli (2)					
Kuwait	Baghdad (1)	Bahrain (1)	Jeddah (1)	Riyadh (1)	Tehran (2)							
Muscat	Emirates (1)	Jeddah (1)	Karachi (1)	Mumbai (1)	Riyadh (2)	Sana'a (2)	Tehran (1)					
Sana'a	Addis Ababa (2)	Asmara (2)	Jeddah (2)	Mogadishu (2)	Mumbai (2)	Muscat (2)	Riyadh (2)					
Tehran	Ankara (1)	Ashgabat (2)	Baghdad (2)	Bahrain (1)	Baku (2)	Doha (1)	Emirates (1)	Kabul (2)	Karachi (1)	Kuwait (2)	Muscat (1)	Yerevan (2)
Tripoli	Algiers (2)	Athena (2)	Cairo (2)	Khartoum (2)	Malta (2)	N'Djamena (2)	Niamey (2)	Tunis (2)				

(1) = Priority 1 for implementation based on the following criteria)
(2) = Priority 2 for implementation based on the following criteria)

To determine MID Priority 1 AIDC/OLDI, the subsequent criteria were considered:

a) if the traffic exchange rate between two adjacent ACCs has exceeded 30 flights per hour; or
b) if two consecutive FIRs implemented longitudinal separation 10 NM or less at common FIR boundary point(s); or
c) if two adjacent FIRs implemented cross border Free Route Airspace (FRA); or
d) if the number of LHD recorded by MIDRMA related to adjacent ACCs has exceeded 10 reports per month and it lasts for more than 6 months; or
e) if traffic movement at the common FIR boundary significant increased during contingency situations; or
f) where decided by both concerned States.

PROPOSED

FF-ICE REGULATORY REQUIREMENTS GUIDANCE & TEMPLATE

The proposed FF-ICE regulatory requirements guidance including 11 articles covering scope, definitions, responsibilities, technical requirements, oversight, and transitional arrangements.

Contents

ARTICLE 1 – OBJECTIVE

1. Purpose: This regulation establishes the requirements and framework for the implementation of Flight and Flow Information for a Collaborative Environment (FF-ICE) within [State], in order to enhance collaborative flight planning, trajectory-based operations, and air traffic flow management. It aims to improve the efficiency and performance of Air Traffic Management (ATM) by enabling the sharing of comprehensive flight information among all stakeholders from the planning phase through completion of flight, consistent with ICAO's Global ATM Operational Concept (Doc 9854) and Global Air Navigation Plan (GANP, Doc 9750).

2. ICAO Alignment: The implementation of FF-ICE under this regulation shall be in accordance with ICAO provisions and guidance. FF-ICE is recognized as a cornerstone of a performance-based air navigation system, defining information requirements for flight planning, flow management, and trajectory management. This regulation therefore aligns with ICAO's Manual on Flight and Flow Information for a Collaborative Environment (Doc 9965) and relevant Standards and Recommended Practices (SARPs) in ICAO Annexes (including Annex 15 – Aeronautical Information Services) to ensure global standardization and interoperability.

3. Collaborative Environment: In pursuing these objectives, the regulation promotes a collaborative decision-making environment where flight information (including 4D trajectory, flight performance data, and flow constraints) is globally standardized and shareable. All ATM community members – Air Navigation Service Providers (ANSPs), aircraft operators, airport operators, and other stakeholders – shall have access to the appropriate flight data needed for strategic, pre-tactical, and tactical decision-making. This collaborative approach is intended to foster greater coordination, enhanced situational awareness, and the achievement of global performance targets in air navigation.

ARTICLE 2 – SCOPE

1. Applicability:

This regulation applies to all flights and flight plan information exchanges under the jurisdiction of [State]'s civil aviation authority, including international and domestic flights for which flight plans are filed or managed within [State]'s Flight Information Region (FIR). It covers all stakeholders involved in the submission, processing, and use of flight plan data and flow management data, specifically:

- Airspace Users: All aircraft operators (civil, military operating as General Air Traffic, and other flight plan originators) filing flight plans for operations in the [State] FIR or as required by [State]'s Aeronautical Information Publication (AIP).
- Air Navigation Service Providers (ANSPs): The ANSP(s) responsible for Air Traffic Management within [State], including Air Traffic Control centers and Flow Management units, for processing and sharing flight information.
- Aeronautical Information Services (AIS)/Aeronautical Information Management (AIM) Units: Entities responsible for managing and distributing aeronautical information, to the extent they facilitate or interface with FF-ICE data (e.g., via System Wide Information Management services). SWIM
- Other Participants: Any other authorized stakeholders that receive or use flight data for operational purposes (e.g., airport operators, network managers, meteorological or aeronautical information service providers) as designated by the [Authority].

2. Phases of Flight:

The provisions of this regulation address the flight information lifecycle from the strategic planning phase through pre-departure, and up to flight execution and post-operation as applicable. Initially, emphasis is on the pre-departure phase (FF-ICE Release 1 capabilities), with the framework adaptable to later phases of FF-ICE (during flight and post-flight information sharing) when those are implemented globally. The regulation is intended to accommodate future expansions of FF-ICE scope (such as trajectory updates during flight and real-time flow management data exchanges) without requiring fundamental changes to the legal framework.

3. Existing Provisions:

This regulation complements and, where necessary, supersedes existing national provisions related to flight plan filing and air traffic flow management. Legacy practices. Beyond that transition, all relevant flight plan and flow information exchanges shall conform to the FF-ICE requirements set forth herein. Any differences between these requirements and applicable ICAO SARPs (Standards and Recommended Practices) or PANS shall be identified and notified by [State] in accordance with Article 38 of the Chicago Convention, if applicable.

ARTICLE 3 – DEFINITIONS

For the purpose of this regulation, the following terms shall have the meanings defined below. Where possible, these align with ICAO definitions in Doc 9965 and related guidance:

• **Flight and Flow Information for a Collaborative Environment (FF-ICE):** A concept and set of provisions for the sharing of flight information and related ATM data in a collaborative manner among stakeholders. FF-ICE encompasses globally standardized information elements and services that support flight planning, trajectory negotiation, and flow management across all phases of flight. (Note: In this regulation, "FF-ICE" generally refers to the initial implementation (Release 1) for flight planning/pre-departure unless otherwise specified.)

• **FF-ICE Services:** Distinct services defined under FF-ICE for exchanging flight information. FF-ICE Release 1 services include, but are not limited to: the Filing Service (submission of flight plans and revisions), Flight Data Request Service (query and retrieval of flight information), Planning Service (collaborative trajectory planning and negotiation), Trial Service (validation of flight plan feasibility without filing), Data Publication Service (distribution of flight plan data and updates to authorized users), and Notification Service (sharing of departure, arrival, or other event notifications) . These services are described in ICAO Doc 9965 and may be updated or expanded in future FF-ICE releases.

• **Flight Information Exchange Model (FIXM):** The global standard data format and schema for representing and exchanging flight information under FF-ICE. FIXM is an extensible markup language (XML) based model (with potential JSON or other encodings) that defines all required data elements (e.g., 4D trajectory, performance data, flight identifiers) for FF-ICE messages. FIXM version [X] refers to the specific edition of this model in use (e.g., FIXM 4.2 or later as specified by the [Authority]). Implementations must support the current ICAO-endorsed FIXM version and be backward-compatible as needed to ensure seamless data sharing.

• **System Wide Information Management (SWIM):** An interoperable environment for information management in ATM, enabling the sharing of ATM information (including flight and flow data) via standardized services, interfaces, and data formats. In the context of FF-ICE, SWIM provides the underlying network and services through which FF-ICE services (flight plan filing, data requests, etc.) are implemented. SWIM principles include the use of internet-protocol networking, service-oriented

architecture, and data exchange models like FIXM (Flight Information Exchange Model), AIXM (Aeronautical Information Exchange Model), and WXXM (Weather Information Exchange Model) for relevant data domains.

• **Global Unique Flight Identifier (GUFI):** A unique alphanumeric identifier assigned to each flight instance in the FF-ICE environment. The GUFI enables unambiguous tracking and correlation of flight data across different systems and services globally, avoiding confusion from callsign or flight number changes. It is a required data element in FF-ICE flight information exchanges for consistency across FIR boundaries.

• **Competent Authority:** The national authority responsible for civil aviation oversight and regulation in [State], typically the [State Civil Aviation Authority or appropriate designation]. This authority (hereafter referred to as "the Authority") is empowered to oversee the implementation of this regulation, ensure compliance, and grant approvals or exemptions as specified.

• **Air Navigation Service Provider (ANSP):** The entity (or entities) authorized by [State] to provide Air Traffic Management and related services (such as Air Traffic Control, Flight Information Services, Air Traffic Flow Management) within the designated airspace. The ANSP in [State] is the primary implementer of the technical and operational aspects of FF-ICE as required by this regulation.

• **Airspace User / Aircraft Operator:** Any entity responsible for operating an aircraft that requires the filing of a flight plan. This includes commercial airlines, air cargo operators, general aviation, and military units when operating as General Air Traffic in civil controlled airspace. Airspace users are responsible for submitting flight plan information in accordance with FF-ICE requirements.

(Other technical terms or acronyms used in this regulation (such as ATM, AIM, AFTN, AMHS, FIR, etc.) shall have the meaning commonly assigned to them in ICAO standards or [State]'s aviation regulations.)

ARTICLE 4 – GENERAL REQUIREMENTS

1. Global Interoperability: [State]'s implementation of FF-ICE shall be interoperable with the global ATM system. Flight information exchanges must use globally standardized data definitions and formats to ensure that flight data can be understood and processed by other States' systems and by regional or global ATM networks. In particular, definitions of data elements shall be those globally standardized under ICAO's framework. The exchange mechanisms must allow the sharing of appropriate flight data across a wide set of participants, thereby facilitating collaborative decision-making and a common situational awareness among the ATM community.

2. Conformance to ICAO Related SARPS and FF-ICE Concept and Procedures: The design, operation, and maintenance of FF-ICE systems and procedures in [State] shall conform to applicable ICAO Standards and Recommended Practices. This includes (but is not limited to) relevant provisions in:

- Annex 11 – Air Traffic Services (as relates to flight plan requirements and ATS coordination),
- Annex 15 – Aeronautical Information Services (particularly data quality requirements, digital data exchange, and System Wide Information Management principles for aeronautical data);
- PANS-ATM (Doc 4444) provisions on flight plan submission, until such provisions are superseded by FF-ICE-specific procedures;

- PANS-AIM (Doc 10066) or other relevant procedural documents addressing information management and SWIM; and
- Guidance material such as Doc 9965 (FF-ICE Manual) and regional Air Navigation Plans.

The Global Air Navigation Plan (GANP, Doc 9750) and its Aviation System Block Upgrades (ASBU) strategy serve as the strategic context; accordingly, [State]'s implementation is intended to satisfy the applicable ASBU elements for FF-ICE (identified in the FICE thread of the GANP).

3. Performance-Based Approach: The implementation shall support a performance-based approach to air navigation. This means systems should be designed not only to meet minimum specifications but also to achieve performance objectives such as increased airspace capacity, improved flight efficiency, and enhanced predictability. Stakeholders should regularly review key performance indicators (e.g., delays, route efficiencies, throughput improvements attributable to improved information sharing) to ensure that FF-ICE is delivering the intended benefits in line with global and regional performance targets.

4. Infrastructure and Environment: The operation of FF-ICE in [State] shall be conducted in an appropriate technological environment. The ANSP is responsible for providing or procuring the necessary communication network and information management infrastructure (e.g., SWIM-compliant messaging systems, secure internet connections, message brokers, etc.) to transport and distribute FF-ICE data. This infrastructure should have the capacity and reliability to handle the increased volume and richness of flight data that FF-ICE entails (such as trajectory details, frequent updates, and multiple stakeholder access), ensuring timely and robust information exchange.

5. Regional Coordination: Recognizing that FF-ICE implementation is most effective when harmonized regionally, [State] shall coordinate its FF-ICE plans with neighboring States and through ICAO regional planning groups (e.g., [relevant PIRG/Regional group]) to facilitate a smooth transition. This includes participating in regional task forces, workshops, or trials for FF-ICE, sharing best practices, and agreeing on interface control documents or service level agreements for cross-border data exchange. Inter-state agreements may be established as needed to govern the exchange of flight data across FIR boundaries using FF-ICE, ensuring that data originating in [State] can be seamlessly used by adjacent FIRs and vice versa.

ARTICLE 5 – RESPONSIBILITIES

5.1 – State Oversight and Authority Responsibilities:

1. Regulatory Oversight: The [Civil Aviation Authority] ("the Authority") is responsible for overseeing the implementation of FF-ICE as per this regulation. The Authority shall issue any necessary guidance material, directives, or supplementary procedures to ensure clarity in how FF-ICE is to be adopted by the ANSP and airspace users. The Authority will also integrate FF-ICE requirements into its safety oversight programme, ensuring that the transition to the new system maintains or enhances the level of safety.

2. Approval and Certification: The Authority shall approve the ANSP's FF-ICE implementation plan and any significant system upgrades, or procedural changes associated with FF-ICE. If required under national law, the Authority may certify or license specific FF-ICE systems or service components (for example, validating that the ANSP's FF-ICE system meets technical standards, or approving third-party service providers interfacing with the system). The Authority should also ensure that appropriate

training and competency requirements are defined for personnel (both regulatory and operational) involved in FF-ICE operations.

3. International Representation: The Authority shall represent [State] in international and ICAO forums regarding FF-ICE. It should actively engage in ICAO panels, working groups, and regional meetings to stay up to date with FF-ICE developments (such as new ICAO SARPs, FIXM version updates, or Release 2/Release 3 progress), and reflect those in national requirements. The Authority will coordinate the filing of any difference to ICAO standards (if any arise from this implementation) and ensure [State]'s AIP is updated accordingly to notify users of the new flight planning requirements.

4. Continuous Improvement: The Authority is responsible for monitoring the effectiveness of FF-ICE implementation and enforcing corrective actions if performance objectives are not met. In consultation with stakeholders, the Authority should periodically review this regulation and related procedures to incorporate lessons learned, new ICAO provisions, or technological advancements (such as improved data exchange techniques or cybersecurity measures).

5.2 – Air Navigation Service Provider (ANSP) Responsibilities:

1. Implementation of FF-ICE Services: The ANSP shall develop, deploy, and maintain the necessary technical systems and operational procedures to provide FF-ICE services as defined in Article 3. At minimum, the ANSP shall implement the Filing Service and Flight Data Request Service (the basic services) on introduction, and subsequently implement the other services (Planning, Trial, Data Publication, Notification) in accordance with the phased implementation plan in Article 10. Each service may be implemented as a SWIM-enabled service accessible to authorized users (e.g., via secure web services or message interfaces). The ANSP must ensure that the legacy flight plan processing (e.g., using the 2012 format via AFTN/AMHS) continues in parallel during the transition, and that both legacy and FF-ICE flight plans are correctly managed to avoid any operational discrepancies during the coexistence period.

2. Data Quality and Standards Compliance: The ANSP shall ensure all flight information handled under FF-ICE meets the data quality requirements set by ICAO. This includes accuracy, resolution, integrity, timeliness, completeness, and traceability of data, as applicable under Annex 15 and PANS-AIM provisions for aeronautical data. The ANSP must use the FIXM standard for all FF-ICE data exchanges and ensure that their systems validate incoming and outgoing messages against the FIXM schema (and any accompanying business rules or validation rules defined by ICAO or regional agreements). Rejection or error messages shall be generated for flight information that does not conform to the required format or contains invalid data, and clear feedback must be provided to the submitting user for correction (e.g., using Trial Service to validate plans before filing).

3. Interoperability and Interface Management: The ANSP is responsible for establishing and maintaining interfaces between the FF-ICE system and other relevant ATM systems, both internal and external. Internally, the FF-ICE data should interface with [State]'s flight data processing systems, Air Traffic Flow Management (ATFM) tools, surveillance tracking systems, etc., so that all ATM functions have access to enhanced information. Externally, the ANSP must connect with adjacent FIRs/ANSPs and any regional network centers (for example, ICAO regional SWIM hubs or a network manager) to exchange flight information. This may involve using standard protocols such as ATS Interfacility Data Communication (AIDC) messages or modern SWIM APIs to share data like boundary estimates, coordination messages, or flight updates. The ANSP should ensure that a flight plan filed once (in FF-ICE format) is made available to all air traffic service units that require it along the route, without the operator needing to re-file or provide redundant information for different FIRs – in line with the FF-ICE concept of a single shared flight object.

4. Training and Procedures: The ANSP shall develop new procedures and train its operational personnel (air traffic controllers, flow managers, flight data processors, etc.) on the use of FF-ICE tools and information. This includes training on how to interpret and utilize 4D trajectory data, how to conduct collaborative decision-making with flight operators during the planning phase (e.g., responding to trajectory negotiation proposals), and how to handle system alerts or error conditions related to FF-ICE messages. Updated manuals, checklists, and contingency procedures (for example, fallback to legacy flight plan in case of system outage) must be put in place. The ANSP should also conduct simulations or trials to ensure controllers and staff are familiar with the new information flows before full operational use.

5. Continued Service Provision: The ANSP is responsible for the continuous availability and reliability of the FF-ICE services. Service level targets (such as system uptime, response times for flight data requests, and capacity to handle peak filing rates) should be defined and met. In the event of planned outages (system upgrades, maintenance) or unplanned downtime, the ANSP must have contingency arrangements (e.g., reverting to legacy systems or manual coordination) to ensure that flight planning can continue, and safety is not compromised. The ANSP shall promptly notify the Authority and users of any major disruptions in the FF-ICE service and take remedial actions.

5.3 – Airspace User (Aircraft Operator) Responsibilities:

1. Submission of Flight Information: Airspace users, including aircraft operators or their designated agents (such as Flight Operations Centers or dispatch services), shall submit flight plans and associated flight information using the FF-ICE formats and systems designated by the ANSP under this regulation. This means that for flights planned on/after the implementation date, the operator must use the new electronic filing mechanism (e.g., a SWIM-enabled interface or web portal provided by the ANSP) rather than the old paper or AFTN message formats. The flight information provided shall include all required data elements as per the FIXM/FF-ICE schema – for example, complete 4D trajectory intent, aircraft performance parameters, preferred routes or scheduling constraints, and any additional data fields mandated by [State] (such as special status indicators, if applicable). Operators must ensure the data is accurate and timely, updating or canceling flight plans as needed in accordance with the procedures.

2. Use of Unique Identifiers: Operators shall use any unique identifiers or reference codes required by the FF-ICE system. This includes the Global Unique Flight Identifier (GUFI) assigned to the flight. An operator receiving a GUFI for a flight (either by creating one when first filing or by using one assigned by the system) must use that identifier in all subsequent communications or data exchanges about that flight. This ensures consistency in referencing the flight across different systems and stakeholders.

3. Compliance with Procedures: Operators must comply with any new procedures related to collaborative flight planning. For instance, if the ANSP's Planning Service proposes modifications or solutions (such as route adjustments to avoid congestion), the operator should engage in the collaborative decision-making process by responding within the required timeframes and providing necessary information or preferences. If using the Trial Service, operators should make use of the capability to pre-validate flight plans to reduce filing errors. Additionally, operators should follow any slot allocation or flow management measures that are communicated through the FF-ICE Notification or Data Publication services (for example, if a ground delay program is implemented, the relevant delay info will be provided via these services).

4. Equipment and Capability: It is the responsibility of airspace users to equip themselves (or make arrangements) with the necessary capability to interface with the FF-ICE system. This may involve updating flight planning software to support FIXM formats, obtaining digital certificates or network access for SWIM services as required by the ANSP, and training dispatchers or flight operations officers

on the new system. Operators are encouraged to participate in any trials or familiarization programmes offered by the ANSP or Authority ahead of the implementation date to ensure readiness.

5. Continued Adherence and Feedback: After implementation, operators shall continue to adhere to FF-ICE requirements for all relevant flights. If any issues or deficiencies are encountered (for example, difficulties in filing or errors in data exchanges), operators should promptly inform the ANSP and cooperate in resolving them. Regular user feedback may be solicited by the Authority or ANSP to improve the system. Operators that fail to use the FF-ICE system properly (or attempt to bypass it without authorization) may be subject to enforcement actions under Article 9.

ARTICLE 6 – TECHNICAL AND OPERATIONAL REQUIREMENTS

1. Data Format and Exchange Standards: All flight plan and flow information exchanges under FF-ICE shall use the Flight Information Exchange Model (FIXM) standard for data representation. The [Authority/ANSP] shall specify the accepted FIXM version(s); initially this will be FIXM [current version]. Messages and data sets must conform to the FIXM XML schema definitions and associated business rules. The system must enforce schema validation for each submitted flight plan or message. In addition, for certain structured fields (e.g., aerodrome identifiers, aircraft type designators, route waypoints), data must comply with relevant ICAO coding standards (e.g., location indicators as per Doc 7910, aircraft types per Doc 8643, etc.).

2. System Wide Information Management (SWIM) Interfaces: The FF-ICE implementation shall be built upon SWIM principles. The ANSP must provide service interfaces (such as web service APIs or message queue endpoints) for the FF-ICE services, accessible to authorized users (airlines, adjacent ANSPs, etc.) over a secure network. The interface specifications (message patterns, access protocols, authentication methods) should follow international SWIM profiles so that external systems can connect with minimal custom adaptation. For example, the Filing Service and Flight Data Request Service could be offered as SOAP or RESTful web services with defined request/response message structures, or through publish/subscribe mechanisms for data like flight plan publications. These services should also be registered in any regional or global SWIM registry to facilitate discovery by stakeholders. Legacy telecommunications networks (AFTN/AMHS) should be bridged to the new system as necessary — for instance, a gateway that converts incoming traditional FPL messages into FF-ICE format or vice versa for distribution to users not yet on SWIM.

3. Unique Flight Identification: The technical system must implement the unique flight identifiers (such as GUFI) in all relevant processes. This ensures that if a flight's data is updated (e.g., a change in departure time or route), all systems (flight data processors, flow tools, airport systems) that reference that flight via the GUFI will automatically relate the updates to the same flight object. Mechanisms should be in place to handle cases like flight plan duplicates or revisions – for example, if an operator files a new plan for a flight already having a GUFI, the system should recognize it as an update rather than a separate flight, according to rules defined in Doc 9965. Coordination with international partners is required to ensure that the GUFI (or any future globally unique identifier) is recognized across FIR boundaries.

4. Data Elements and Extensions: The FF-ICE data model includes a comprehensive set of mandatory and optional data elements (e.g., departure times, 4D waypoints, fuel endurance, etc.). [State] shall adopt the full core dataset as defined by ICAO for FF-ICE Release 1. If [State] requires additional data elements (for example, a special indicator for security flights, or national routing preferences), these shall be implemented using the FIXM extension mechanism so as not to break compatibility with the core model. Such extensions must be clearly documented and shared with other stakeholders (through regional coordination) to facilitate their use or acceptance by other systems. Conversely, [State]'s

system should be capable of accepting FF-ICE messages from foreign operators/ANSPs that contain recognized regional extensions, even if [State] does not use that data, provided it does not compromise processing.

5. Time Synchronization and Reference: All time stamps in FF-ICE exchanges (e.g., estimated off-block time, take-off time, etc.) shall be in Coordinated Universal Time (UTC) and adhere to the format prescribed by ICAO (ISO 8601 date-time format if using XML). The system clocks of the ANSP's FF-ICE infrastructure must be accurately synchronized (for example, via GPS time or a Network Time Protocol NTP service) to avoid discrepancies in time-dependent data like trajectories or flow constraints.

6. Trajectory and Performance Data Use: The system shall be capable of processing 4D trajectory information provided in flight plans. This includes calculating or parsing latitude/longitude waypoints with altitude and time constraints and handling complex route elements (such as speed/level changes, cruise climb details, etc.). The ANSP's tools should use this rich trajectory data for conflict detection, demand-capacity balancing, and optimization. Additionally, performance data (aircraft weights, speed capabilities, etc.) provided under FF-ICE can be used to improve trajectory predictions. The regulation mandates that such data, when provided by operators, be used in accordance with ICAO guidance and local procedures to enhance ATM decision-making (e.g., more accurate calculation of sector loads, better predictions for coordination with meteorological conditions, etc.). The Authority may require the ANSP to demonstrate how these data are utilized effectively as part of safety assessment or efficiency reviews.

7. Legacy System Integration: During the transition and, if needed, beyond, the ANSP must maintain interoperability between the FF-ICE environment and legacy flight plan processing systems. For example, if certain external systems (like military flight plan systems or adjacent FIRs not yet on FF-ICE) continue to use the traditional FPL 2012 messages, the ANSP should implement conversion tools that can translate an FF-ICE flight plan into a standard FPL format (and vice versa) to ensure no loss of information. All converted legacy messages must be carefully constructed so that critical information (such as extensive route information or supplementary data) is not truncated or omitted due to format differences. The ANSP should also continue to support existing coordination messages (such as AIDC or OLDI messages between control centers) until such time as those too are transitioned to FF-ICE or equivalent modern protocols.

8. Validation and Testing: Prior to full operational use, the FF-ICE system and its components shall undergo rigorous testing and validation. This includes:

• **Conformance Testing:** Ensure the system correctly implements the FIXM schema and all message types – test with a wide range of flight plan scenarios (normal, alternate routes, various aircraft types, etc.) including edge cases.

• **Interoperability Testing:** Conduct tests with external partners (e.g., airlines connecting their flight planning software to the ANSP's system, or tests with neighboring ANSPs and the ICAO regional SWIM network) to verify that data exchange works end-to-end and that there are no data mismatches or connectivity issues.

• **Operational Trials:** Carry out shadow operations or parallel runs where flights are filed and managed through FF-ICE in simulation or in parallel to live operations, to gauge performance and identify any operational issues without impacting live traffic.
• **Certification (if applicable):** If [State] requires, an official certification process may be conducted. For instance, similar to the Network Manager's B2B certification in Europe, [State] may require that aircraft operators or flight plan service providers successfully complete a validation process with the

ANSP's system before being allowed to use FF-ICE operationally. The ANSP should provide a test platform and support for users to achieve this validation.

The technical requirements set out in this Article shall be updated as necessary by the Authority through amendments or advisory circulars, particularly to remain aligned with global standards (such as newer FIXM releases, or FF-ICE Release 2 requirements when they become available).

ARTICLE 7 – INTEROPERABILITY AND REGIONAL/GLOBAL HARMONIZATION

1. ASBU Alignment: [State]'s FF-ICE implementation shall align with the internationally agreed Aviation System Block Upgrades (ASBU) modules under the GANP for Flight Information Exchange. Specifically, this implementation corresponds to the FF-ICE related ASBU elements: B0-FICE (Ground-Ground Integration), B1-FICE (Pre-Departure Collaborative Flight Planning Applications), B2-FICE (Extended Multi-Center Flight Data Integration), and B3-FICE (Full FF-ICE implementation across all phases). In planning the rollout, [State] should consider the timelines suggested by the GANP for these blocks and coordinate its targets accordingly so as to be in step with global ATM evolution.

2. Adjacent FIR Coordination: The ANSP and Authority must coordinate with adjacent FIRs to ensure that flight plans do not need to be re-filed or manually adjusted when crossing FIR boundaries. This may involve bi- or multilateral agreements on how FF-ICE data is exchanged. For example, if a neighboring FIR is not yet FF-ICE capable, agree on an interim procedure where [State] will send a transformed flight plan in the legacy format to that FIR's ATC unit. Conversely, for neighbors that have implemented FF-ICE, establish connectivity (network links, security agreements) to directly share the flight object information. The goal is seamless gate-to-gate operation for the flight, with consistent information available to every ATC unit along the route.

3. Use of Regional Networks: Where a regional ATM network or centralized facility exists (such as a future ICAO regional SWIM node in the MID region), [State] shall make use of those for broader interoperability. [State]'s FF-ICE system should feed flight data into the regional network to assist in flow management beyond national boundaries and to receive regional constraints or updates. Participation in such networks may also reduce duplication (e.g., filing once to the network covers multiple FIRs). The Authority should ensure that any regional requirements (for example, specific data elements or performance criteria mandated by a regional implementation plan) are incorporated into [State]'s system.

4. Interoperability with Other Domains: FF-ICE will be one part of the wider information management environment, which also includes meteorological information exchange (IWXXM/WXXM), aeronautical information (AIXM), surveillance data sharing, etc. The system implemented under this regulation should be designed to eventually interoperate with these domains as well. For instance, if a trajectory management system uses both flight plan data and real-time weather information, the interfaces and data models should allow combining those. Similarly, if airports are sharing surface trajectory information (perhaps through the Airport Collaborative Decision-Making process or surface management systems), there should be pathways to integrate that with FF-ICE data for end-to-end trajectory optimization. The Authority should encourage an architecture where all these information exchanges use compatible standards and a common SWIM framework.

5. Global Updates and Compatibility: As ICAO and the global community refine FF-ICE (e.g., development of FF-ICE Release 2 for the tactical phase, or new concepts like Trajectory Based Operations integration), [State] shall strive to update its systems in a timely fashion so as to remain globally compatible. This includes adopting any future globally unique flight object concepts or revisions to message semantics. To avoid fragmentation, any change to the implementation that might

affect international partners (like a new data element that neighboring FIRs must handle) should be communicated well in advance through ICAO channels. The Authority should publish in the AIP (or other official publication) the necessary details of [State]'s FF-ICE system for international awareness, such as the effective date of FF-ICE usage, the communication addresses or endpoints for filing, accepted message formats, and any differences from the ICAO baseline.

ARTICLE 8 – CYBERSECURITY AND DATA GOVERNANCE

1. Information Security Management: The ANSP and all participating stakeholders shall implement robust cybersecurity measures to protect FF-ICE related systems and data. FF-ICE being a mission-critical system for ATM, it is essential to ensure confidentiality, integrity, and availability of the information. The ANSP must develop an Information Security Management System (ISMS) or incorporate FF-ICE into existing aviation ISMS frameworks, consistent with ICAO's cybersecurity principles (such as those outlined in the ICAO Aviation Cybersecurity Strategy) and industry standards (e.g., ISO/IEC 27001 for information security). This includes conducting risk assessments for potential cyber threats (e.g. unauthorized access, data corruption, denial-of-service attacks on the flight plan system) and implementing controls such as firewalls, intrusion detection systems, access controls, and network segmentation to mitigate those risks.

2. Access Control and Authentication: Only authorized users and systems shall be permitted to access the FF-ICE services and data. The ANSP must enforce strong authentication mechanisms for any user or system connecting to the FF-ICE interface – for example, the use of digital certificates, secure tokens, or VPN access with multi-factor authentication for external users (like airline dispatch offices). Each connecting entity (whether an airline system, an adjacent ANSP, or an internal workstation) should be identified and granted role-based access permissions. Data access should be limited to what each party legitimately needs (principle of least privilege); for instance, an airline should only be able to access its own flight data (plus relevant ATM constraints), whereas an adjacent ANSP can access flights crossing into their FIR.

3. Encryption and Data Protection: All communications carrying FF-ICE data must be encrypted in transit using strong cryptographic protocols (such as TLS for IP-based communications). This ensures that flight plans or flow management messages cannot be intercepted or read by unauthorized parties. If any FF-ICE data is stored at rest (e.g., in databases or archives), appropriate encryption or security controls should protect it, especially if it contains sensitive operational information. Additionally, the integrity of data must be protected – mechanisms like digital signatures or message authentication codes can be employed so that any tampering of a flight message en route would be detected and rejected.

4. Data Governance and Privacy: Flight plan data generally contains operational information, but it may also include certain personal or sensitive details (for example, pilot contact information in supplementary information, or military mission data). The Authority and ANSP shall ensure that data governance policies are in place for all information handled in FF-ICE. This includes:

• **Data Ownership:** Clarifying that the originator of the flight data (the operator) retains ownership of the data they submit, while allowing the ANSP and other ATM participants to use that data for safety and efficiency purposes under this regulation.

• **Permitted Use:** Ensuring that FF-ICE data is used only for legitimate ATM and aeronautical purposes. Secondary use of the data (for example, for commercial data mining or non-ATM purposes) is prohibited unless explicitly authorized by the data owner and the Authority.

• **Data Retention:** Setting rules for how long flight data will be retained in the system. For instance, the ANSP might keep filed flight plan records for a certain period (e.g., 30 days post-flight for

operational analysis, or longer if needed for incident investigations). Beyond the necessary retention period, data should be securely disposed of or archived in accordance with [State]'s data protection laws and ICAO guidelines.

• **Privacy Compliance:** Adhering to any applicable personal data protection laws for information contained in flight plans. While most FF-ICE data is not personal (being about flights), any personal elements (like names, telephone numbers in emergency contacts, etc.) should be safeguarded under privacy regulations. The Authority should ensure that the handling of such data by the ANSP or other parties is compliant with national privacy legislation or policies.

5. Resilience and Recovery: Cybersecurity is not only about prevention but also about resiliency. The ANSP must ensure that the FF-ICE system design is resilient to cyber incidents. This may involve redundant systems, regular backups of flight data, and the ability to revert to a safe state (like using the legacy system) if the FF-ICE system must be shut down or isolated due to a cyber-attack. Incident response plans shall be in place specifically for FF-ICE, detailing how to identify a security breach, contain it, eradicate any threats, recover operations, and report the incident to the Authority and relevant stakeholders. Regular cybersecurity drills or exercises involving the FF-ICE system should be conducted to practice these response plans.

6. Audit and Monitoring: The ANSP shall implement continuous monitoring of the FF-ICE infrastructure for security events. Audit logs should record key events (such as user logins, message submissions, data queries, and any administrative actions). These logs must be protected from alteration and should be reviewed periodically for signs of unauthorized activities. The Authority reserves the right to conduct or require independent security audits of the FF-ICE system. If such an audit finds deficiencies, the ANSP must address them promptly. Significant findings or breaches should be shared with ICAO or regional bodies if they have implications for global interoperability (for example, if a type of attack is observed that could threaten other states' FF-ICE systems, sharing that information will help improve collective security).

ARTICLE 9 – COMPLIANCE, MONITORING AND ENFORCEMENT

1. Compliance Monitoring: The [Authority] shall monitor compliance with the requirements of this regulation through its safety oversight and audit programmes. This includes reviewing the ANSP's implementation (system design, test results, operational readiness) before and after commissioning, and verifying that airspace users are adhering to the new flight plan filing procedures. The Authority may inspect relevant documentation, require demonstration of system capabilities, and observe operations to ensure that all provisions (technical, operational, security) are properly in effect.

2. Incident Reporting: Any significant issues in the implementation or operation of FF-ICE that could affect service provision or safety must be reported to the Authority. For example, if the ANSP experiences a major system failure affecting flight plan processing or if an operator repeatedly encounters errors filing flight plans, these should be logged and reported. Based on such reports, the Authority can determine if further investigation or remedial action is needed. Additionally, the regulation encourages a just culture environment for reporting – meaning that unintentional errors or difficulties in using the new system should be reported by operators or controllers without fear of unnecessary punishment, so that the system can be improved. However, gross negligence or willful non-compliance is not protected.

3. Enforcement Actions – ANSP: If the ANSP fails to fulfill its obligations (for instance, significant delays in implementation without valid justification, not meeting data quality requirements, or inadequate cybersecurity protections), the Authority is empowered to take enforcement measures. These

may include directives to take corrective action by a set deadline, imposition of additional oversight (e.g., Authority representatives on-site to monitor implementation), or financial penalties as permitted under [State]'s aviation laws or the terms of the ANSP's certification. In extreme cases, if non-compliance severely jeopardizes safety or international obligations, the Authority could limit or suspend certain services of the ANSP until compliance is restored (recognizing this is a last resort given the impact on operations).

4. Enforcement Actions – Airspace Users: From the effective date of FF-ICE implementation (after any transition period in Article 10), it is expected that all flight plan filings be via the FF-ICE system. If an airspace user (airline or other operator) persistently fails to use the required system or format (e.g., continuing to file old-format plans without authorization, or submitting incomplete/incorrect FF-ICE data that does not meet requirements), the Authority or ANSP may take escalating actions. Initially, this could be warnings or targeted outreach to ensure the operator understands the requirements. If non-compliance continues, the ANSP may refuse to accept flight plans from that operator that are not compliant, meaning the flight would effectively not be authorized to operate in [State]'s airspace until a proper flight plan is filed. Additionally, administrative penalties or fines may be imposed on operators for violations of civil aviation regulations (consistent with [State]'s enforcement provisions). The Authority will ensure that any such actions are coordinated and communicated clearly to avoid unintended disruptions (for example, coordinating with an operator's State of Registry or issuing NOTAMs if needed to alert foreign operators).

5. Performance Reviews: As part of compliance monitoring, the Authority will also review whether the intended benefits of FF-ICE are being achieved. This ties into compliance in a broader sense – e.g., if some stakeholders are not using the system to its full capability (such as airlines not providing optional data that could improve ATM), the Authority may encourage or eventually mandate fuller compliance (like requiring certain data fields that were optional if it proves critical for ATM outcomes). Regular reports on metrics (e.g., the percentage of flights filed through FF-ICE, number of collaborative decisions made, reduction in last-minute flight plan changes, etc.) should be produced. These reviews ensure that compliance is not just procedural but also functional, leading to the desired enhancements in ATM. If the outcomes are lacking, the Authority might adjust the regulation or guidance accordingly (for example, tighten requirements or provide additional training).

ARTICLE 10 – IMPLEMENTATION TIMELINE AND TRANSITIONAL PROVISIONS

1. Phased Implementation Plan: The implementation of FF-ICE in [State] shall be carried out in phases to allow a smooth transition from current operations. The phases are aligned with the FF-ICE release roadmap and ASBU blocks:

• Phase 1 – FF-ICE Release 1 (Pre-departure phase): Introduction of FF-ICE for flight planning prior to departure. This phase will include the deployment of the basic services (Filing Service and Flight Data Request Service) and at least initial versions of the Trial and Data Publication services. Phase 1 shall be completed by [Date], by which time all new flight plans for flights in [State] should be filed via FF-ICE (with legacy support as backup). This phase corresponds to achieving ASBU B1-FICE objectives, enabling collaborative pre-departure coordination.

• Phase 2 – Extended FF-ICE Services (Multi-center integration): Expansion of FF-ICE capabilities to cover more complex scenarios, such as multi-center coordination of flight plans, cross-border trajectory negotiation, and advanced flow management using shared data. In this phase, the Planning Service and Notification Service should become fully operational, and coordination between [State] and adjacent FIRs via FF-ICE will be active. Phase 2 is expected by [Date], aligning with ASBU B2-FICE, wherein multiple ATS units exchange flight information seamlessly and possibly the early use of FF-ICE during the flight (execution phase updates) on a limited scale.

• Phase 3 – Full FF-ICE Implementation (All phases of flight): This final phase entails the use of FF-ICE for gate-to-gate management of flights, including in-flight trajectory updates and post-departure flow management. It assumes the development of FF-ICE Release 2 (for the en-route phase) and Release 3 (for post-flight or further integration) by ICAO. In Phase 3, the integration between air and ground becomes operational – e.g., linking with aircraft's onboard systems for trajectory synchronization if applicable. Tentatively by [Date] (not later than 2030/2031), [State] should reach this phase, in line with ASBU B3-FICE (Full FF-ICE) which ICAO envisions for the late 2020s or early 2030s. The exact timeline for Phase 3 may be adjusted based on global readiness and standards availability, but advance planning for necessary investments should be done in Phase 1 and 2.

2. Transition Period and Dual Operations: To minimize operational disruption, there will be an overlap period during which both the current flight plan process and the new FF-ICE system run in parallel. The transition period shall commence with the initial operational capability of Phase 1 and last for at least [X] months (or until a certain confidence level and usage threshold is met) but not exceeding [Y] years beyond the Phase 1 completion date. During this time:

• Operators may file flight plans either via the new FF-ICE system or using the legacy format/procedures, and the ANSP must accommodate both. However, operators are strongly encouraged to use FF-ICE, and after [some milestone or date], may be required on certain busy routes or for certain airspace.

• The ANSP will ensure that any flight plan filed in the legacy format is translated into the FF-ICE system to permit the advantages of FF-ICE (e.g., sharing with stakeholders, 4D trajectory processing). Conversely, if an FF-ICE flight plan is filed but needs to be delivered to a legacy system (like to a neighboring center not on FF-ICE), the ANSP handles that conversion.

• Adequate notice (via AIP Supplements or Aeronautical Information Circulars) will be given to all users about the start of FF-ICE operations and the expected end of the transition period when legacy filing will no longer be accepted. The target end-date for accepting legacy (FPL 2012) flight plans is [Date], after which all flight plans must be via FF-ICE unless exempted.

3. Temporary Exemptions: The Authority may grant temporary exemptions to certain operators or flights from the FF-ICE filing requirement, on a case-by-case basis, if justified by operational necessity or technical limitations. For example, State aircraft (military or other exempt flights) or general aviation operators without immediate access to the necessary technology might be allowed to continue using legacy filing for a limited time. Any such exemptions should have a clear expiration (e.g., not more than one year beyond the transition period) and may include conditions (like requiring the operator to coordinate by telephone or provide additional information to the ANSP). The Authority will document any exemptions and include them in the State's differences (if they affect international services) or publish them for transparency. The ultimate goal is that all regular operations transition to FF-ICE, so exemptions will be progressively withdrawn.

4. Progress Monitoring and Reporting: During each phase of implementation, the ANSP shall report progress to the Authority at regular intervals (e.g., quarterly or as determined). These progress reports should include statistics like the percentage of flight plans filed via FF-ICE vs. legacy, system performance data, any issues encountered, and feedback from users. The Authority will use these reports to determine if the next phase can proceed as scheduled. If significant issues arise, the Authority may decide to extend a phase or transition period to maintain safety and continuity. Furthermore, [State] will report its implementation status to ICAO (through regional implementation meetings or ICAO's monitoring tools) – for instance, confirming Phase 1 achievement (B1-FICE) and readiness for Phase 2 – so that regional coordination can occur (other States can adjust if needed, and any needed support can be identified).

5. Revision of Dates: The timeline stipulated in this Article is based on current expectations and ICAO's global plan. The [Minister/Authority] is empowered to revise the phase completion dates or transition end date via an official order or amendment to this regulation, if necessitated by new developments (for example, if ICAO significantly changes the target dates for FF-ICE in the GANP, or if technical challenges require more time). All stakeholders shall be consulted as practicable before adjusting timelines. Any revision will be promulgated with sufficient lead time.

6. Legacy System Decommissioning: After the successful completion of the transition period and once legacy flight plan acceptance is discontinued, the ANSP shall decommission or repurpose the legacy flight data processing systems in an orderly manner. Historical data should be archived, and any functions not replaced by FF-ICE (if any) must be addressed. The aim is to avoid maintaining dual systems in the long term due to cost and potential inconsistency. However, certain legacy capabilities may be retained as contingency backups if they can serve as a fallback (for example, an offline flight plan filing via AFTN as an emergency method if the FF-ICE network is completely unavailable). Such contingency use would be outside normal operations and only under the direction of the Authority.

ARTICLE 11 – FINAL PROVISIONS

1. Entry into Force: This regulation [and its annexes] shall enter into force on [effective date]. The [Authority] shall ensure publication of the key dates and requirements in the Aeronautical Information Publication (AIP) at least [number] days prior to the commencement of Phase 1 to inform all international and domestic stakeholders.

2. Amendments: Any amendments to this regulation (for example, to update references to ICAO documents, incorporate FF-ICE Release 2 provisions, or adjust to new standards) shall be promulgated by the [Authority] in accordance with [State]'s rule-making procedures. Stakeholders will be given the opportunity to comment on significant changes, especially those affecting systems and costs.

3. Relationship with Other Regulations: This regulation shall be considered a specific provision related to ATM and AIS under [State]'s civil aviation law. In case of any conflict between this regulation and any existing national regulation on flight plans or ATFM, the provisions of this regulation shall prevail for matters concerning FF-ICE implementation. The [Authority] shall update or harmonize other regulatory documents (such as ATC operational manuals, AIP sections on flight plan requirements, etc.) to ensure consistency.

4. Compliance with Chicago Convention: This regulation is intended to assist [State] in meeting its obligations under the Convention on International Civil Aviation for the provision of Air Navigation Services and Facilitation of International Air Navigation. It is drafted in alignment with ICAO SARPs and global plans; therefore, implementation of this regulation will contribute to a globally interoperable system. [State] will notify ICAO of its FF-ICE implementation as required (through amendments to its eANPs or other channels) to enhance global awareness and coordination.

5. Review: The [Authority] shall review the effectiveness and adequacy of this regulation within [X years] of full implementation of Phase 1, and periodically thereafter (e.g., every [Y] years or upon major ICAO updates). This is to ensure the regulatory framework remains robust and up to date with technological and procedural evolutions in FF-ICE and related ATM enhancements.

ASM Action Plan

I. List of ASM priority focus areas:

1. *Implementation of PBN in Enroute*
2. *Implementation of reduction of longitudinal separation*
3. *ATS route network (including establishment of ATS routes, designators and 5LNCs)*
4. *ASM improvements (CMC and FUA, FRA, RAD, TOS, FLAS & LoA)*
5. *RPAS/UTM*
6. *FF-ICE implementation*
7. *Others related tasks*

II. List of Action Items and implementation Status (as of 12 January 2026)

Focus area number	Action		Target date	Deliverable	Champion	Reference	Status / RMK
	No.	**Description**					
1	**1.1**	Publish implementation of RNAV 5 in their FIRs		RNAV 5 routes should be published in AIP ENR 3.2.	**Lebanon**	MIDANPIRG Conclusion 12/9	
					Libya		
					Syria		
	1.2	Implement RNAV 5 in the level band FL160 - FL460		Update State AIP, ENR 3.3 to indicate implementation of the RNAV 5 in the level band FL160 - FL460 (inclusive).	**Egypt**	MIDANPIRG Conclusion 12/9	On going
					Iran		
					Lebanon		
					Libya		
					Syria		
					Sudan		
	1.3	Publish RNAV routes in relevant part in the AIP		All RNAV routes either defined by RNAV designator or non-RNAV designator publish in ENR 3.2	**Egypt**		
					Kuwait		AIP Amend published Task completed ASM WG/2
					Yemen		On going
	1.4	RNAV5 to RNAV1 within Baghdad and Kuwait FIR		Development of 3 parallel RNAV1 routes at interface Kuwait and Baghdad FIRs	**Kuwait**	ASM WG/2	
					Iraq		

Focus area number	Action		Target date	Deliverable	Champion	Reference	Status / RMK
	No.	**Description**					
2	**2.1**	develop roadmap for the implementation of Project 30/10 in the MID Region, including the inter-regional aspects		Draft Roadmap	**ASM WG**	MIDANPIRG Conclusion 22/10	On going The action group was established to develop required roadmap
	2.2	Coordinate with neighboring States to reduce surveillance longitudinal separation down to 10 NM, or non-surveillance to 30NM.		Implementation Checklist	**ASM WG**	MIDANPIRG ~~Conclusion 13/5~~ Conclusion 22/11	On going Progress presented in WP5, App A 
3	**3.1**	Remove prefix “U” from ATS route designators		Revise AIP, ENR 3 to remove prefix “U”	**Bahrain** (A453, B415, B416, B419, B457, G663, L305, L308, L319, L438, L443, L602, L604, L768, M430, M444, M677, M872, N300, N318, N563, N571, N685, N687, N697, N929, P425, P430, P559, P693, P699, P899, P975 & R659).	MSG Conclusion 6/9	Task completed ASM WG/3
					Egypt (A1, A16, A411, A727, B12, B411, L315, L321, L550, L551, L604, L607, L612, L613, L617, L677, M305, M309, M312, M686, M690, M872, M999, N307, N316, N697, P557, P563, P751, R2 & R650).		Task completed ASM WG/2

Focus area number	Action		Target date	Deliverable	Champion	Reference	Status / RMK
	No.	**Description**					
					Iran (A416, A418, A422, A453, A647, A788, B121, B411, B416, B417, B441, B451, G202, G452, G663, G665, G666, G667, G669, G670, G775, G781, G792, L124, L125, L223, L319, L333, L430, M316, M318, M434, M561, M573, N319, N440, P146, P567, P574, R205, R401, R462, R654, R659, R660, R661, R784 & R794)		Task completed ASM WG/2
					Iraq (A424, B411, G202, G665, G667, G669, G795, L200, L417, L602, M203, M434, M688, M860, M861, P975 and R652).		Task completed ASM WG/3
					Jordan (UM690, UR785, UB544, etc.)		Task completed ASM WG/2
					Lebanon (UM425, UL620, UN438, etc.)		
					Oman (UB424, UL425, UB535, etc.)		Task completed
	3.2	Change ATS route designators		Revise AIP, ENR 3 to change the required ATS route designators in accordance with ANP volume II.	**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)	Approved PfAs MID.II.2201-ATM & MID.II.2302-ATM	Task completed ASM WG/3

Focus area number	Action		Target date	Deliverable	Champion	Reference	Status / RMK
	No.	**Description**					
					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).		Task completed ASM WG/2
					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, M600 to P320, Z270 to P560, W863 to P563, Z333 to P573, W852 to P702, T295 to P706, T299 to P709, T297 to M707 & Y751 to M855).		Task completed ASM WG/2

Focus area number	Action		Target date	Deliverable	Champion	Reference	Status / RMK
	No.	**Description**					
					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).		Task completed ASM WG/3
					Qatar (Y604 to L704, T665 to N700, T430 to P550, T444 to P700).		On going All changes have been completed except T665 to N700 which is required to publish by Iran, Qatar and UAE in the same format as a regional contingency route and active by NOTAMs
					Saudi Arabia (G674, G799, M309 & R23 to non-regional H732 to M553, H741 to M320, J735 to P703, J749 to N709, J852 to M702, J874 to N704, T136 to L716, Y415 to M705, Y511 to M711, Z515 to M717, Q332 to N323, V13 to N703, Y517 to N707, T513 to N713, V975 to P705, Q510 to P710, T100 to P711, Q212 to P712, Q21 to P721, Q143 to P723, Q615 to P753, Q624 to P752, T295 to P706 &		On going, targeting Q4 2025.

Focus area number	Action		Target date	Deliverable	Champion	Reference	Status / RMK
	No.	**Description**					
					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)		Task completed ASM WG/2
					Syria (A21 to R655, B538 to Q538, J222 to N310, Q52 to N565)		Task completed ASM WG/2
					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)		On going All changes have been completed except T665 to N700 which is required to publish by Iran, Qatar and UAE in the same format as a regional contingency route and active by NOTAMs and Q415 to N715.
					Yemen (L566 to Y101, P552 to Y103, R799 to Y105)		Task completed ASM WG/2
	3.3	MID ATS Route PfA and Optimization of MID Region ATS Route Designator		develop plan and for review before processing the required PfA retain the designator	**All MID States**	ASM WG/3	On going The proposal should be reviewed by the States and provide feedback in ASM

Focus area number	Action		Target date	Deliverable	Champion	Reference	Status / RMK
	No.	**Description**					
							WG/4
4	**4.1**	Continuation of FRA volume between UAE and Qatar		Detailed implementation plan	Qatar and UAE	ASM WG/1	On going, targeting Q3/2026
	4.2	Explore the feasibility of Development of Regional RAD/routing concept		RAD portal	Oman and Saudi Arabia. Other interested States	ASM WG/1	Oman: AIP Amend published. Saudi Arabia: On going targeting Q2 2026. RAD Portal is developed.
	4.3	Regional cooperation of optimization of major traffic flows		- Identification of the major traffic flow - Optimization of the network	Oman and MID States	ATM SG/10 WP/22 by Oman	On going
	4.4	Enhancement of Sana'a and Muscat FIRs interface by reactivation of position KAPET		- Revise letter of Agreement (LoA) between Yemen and Oman	Yemen Oman	ASM WG/3 PPT/10 by Yemen	 Oman is ready to reactivate position KAPET
5	**5.1**	Preparation for FF-ICE implementation		- ICAO APAC/MID ATFM and FF-ICE Seminar 2025 (Dubai, UAE, 23 – 26 Feb 2025)			Conducted
	5.2	AIDC/OLDI applicability area (FF-ICE enabler)		Develop draft FF-ICE (B0/1) applicability area (based on operational needs)			

Focus area number	Action		Target date	Deliverable	Champion	Reference	Status / RMK
	No.	**Description**					
	5.3	Development of MID FF-ICE roadmap		Draft FF-ICE roadmap from operational (ATM) perspective	FF-ICE roadmap Action Group	MIDANPIRG ASM WG/3	On going Action group was established to develop Survey and consolidate report to ASM WG/4 for further review
6	**6.1**	MID Region ATM Monitoring Dashboard		Support the development of the ATM Dashboard (offered by GACA/SANS)	GACA/SANS	ATM SG/9-10	On going The initial version presented in ATM SG/11
	6.2	Air Navigation Plan (Vol. II): Homogenous Areas and Major Traffic Flow (Table GEN II-1)		review and update ***Table GEN II-1*** for review before processing the required PfA		ASM WG-3	On going The meeting agreed on the proposed table. Secretariate will develop required PfA to MIDANPIRG/23

TERMS OF REFERENCE (TOR) OF THE MIDANPIRG AIRSPACE MANAGEMENT WORKING GROUP (ASM WG)

I. TERMS OF REFERENCE

1.1 The Airspace Management Working Group was established by the MIDANPIRG/21 meeting to address the challenges in Airspace Management and provide a forum for the ATM specialists in the Region to work together to improve safety and efficiency, increase airspace capacity to meet future demand requirements; and reduce the environmental impact of increasing air traffic by offering improved ATM operations. Therefore, the **Airspace Management Working Group (ASM WG)** Terms of Reference are as follows:

a) Address the MID Region Airspace Management challenges:

   i. conduct a holistic review and perform gap analysis of the MID ATS Routes Network in order to assess the regional capacity, hotspots and constraints;

   ii. identify requirements and improvements for enhancing safety and achieving an efficient airspace structure within the MID Region;

   iii. support states on coordinating the identified airspace and ATS route network requirements with relevant stakeholders (International Organizations, airspace user representative organizations and other ICAO Regions);

   iv. address areas of conflicting traffic highlighted in the MIDRMA Annual Safety Monitoring Report (SMR);

   v. support States in resolving interface issues with adjacent ICAO Regions;

   vi. identify the Priority 1 ASBU elements with low level of implementation and support the States to overcome the challenges for the implementation of these elements; and

   vii. address MID ATS route designators and 5LNCs challenges.

b) Support the enhancements of MID airspace structure and ATS route network:

   i. improve connectivity and accessibility (specification, trajectory, spacing, etc.), considering the ability to offer additional routing options, to support operational requests, including contingency situations;

   ii. foster a harmonized implementation of Performance Based Navigation (PBN) within the enroute environment;

   iii. coordinate with the MIDRMA and IATA/airspace users to collect and analyse traffic data related to the proposed changes to the ATS Routes Network, as required;

   iv. develop a working repository for route proposals to be used as a dynamic reference for the establishment / modification of ATS routes; and

v. support the development, coordination and submission of Proposals for Amendment (PfA) for processing to ensure the continuous and coherent development and update of the MID ANP in the respective subjects.

c) Endeavour to enhance safety and efficiency; increase capacity and reduce the environmental impact of increasing air traffic through the implementation of improved ATM operations:

i. support States to review and update their Letter of Agreement with adjacent FIRs to optimize utilization of the MID airspace in a harmonized manner;

ii. develop regional procedure to regulate and harmonize implementation of TOS, RAD and FLAS;

iii. foster the implementation of reduced Longitudinal Separation between FIRs;

iv. foster the implementation of Civil-Military Cooperation (CMC) and Flexible Use of Airspace (FUA);

v. support the planning and harmonized implementation of Free Route Airspace (FRA); and

vi. foster the implementation of (FF-ICE).

d) Support the planning for the operation/integration of new entrants such as Remotely Piloted Aircraft System (RPAS)/Unmanned Traffic Management (UTM) into the MID Region airspace;

e) Considering global and regional developments related to ATM, identify/propose necessary amendments to the MID Air Navigation Strategy for review by the ATM SG;

f) Report its activities to the ATM SG; and

g) Review periodically its Terms of Reference and propose amendments, as necessary.

h) The ASM AG would review and amend accordingly the action items and timelines based on the developments and progress.

II. COMPOSITION

2.1 The Working Group is composed of:

a) MIDANPIRG Member States;

b) concerned International and Regional Organizations; and

c) other representatives from States from other ICAO Regions; provider States and Industry may be invited on ad hoc basis, as observers, when required.

III. WORKING ARRANGEMENTS

3.1 The Chairperson, in close co-operation with the Secretariat, shall make all necessary arrangements for the most efficient working of the Working Group. The Working Group shall at all times conduct its activities in the most efficient manner possible with a minimum of formality and paperwork (paperless meetings). Permanent contact shall be maintained between the Chairperson, Secretary and Members of the Working Group to advance the work. Best advantage should be taken of modern communications facilities, particularly videoconferencing (Virtual Meetings) and e-mails.

3.2 In person meetings will be conducted once a year and when deemed necessary.

Airspace Management Working Group (ASM WG)

LIST OF MAIN FOCAL POINT AND ALTERNATES

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ATTACHMENT A

List of Participants

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Egypt / Egyptian Civil Aviation Authority	Mr.	Abdelaziz Mahmoud	General Manager of Airspace Affairs and AIS department
Egypt / Egyptian Civil Aviation Authority	Mr.	Mohamed Ali Mohamed Ali	General Director of ATS Safety Standards
Egypt/ Egyptian Civil Aviation Authority	Mrs.	Rana Mohammad Abd El-Raheem	ANS Inspector
Egypt/ Egyptian Civil Aviation Authority	Capt.	Reem Hammad Mohamed Medany	ATC -ANS inspector
Egypt / NANSC	Capt.	Mahmoud Ahmed Nabil	Air Traffic Controller
Egypt / NANSC	Capt.	Mohamed Zakareya Elsayed	Air Traffic Controller
Egypt / NANSC	Capt.	Mohamed Nabil Ibrahim	Air Traffic Controller
Egypt / NASMC	Mr.	Wael Ammar	Vice Chairperson of the ASM WG
Iraq / Civil Aviation Authority	Mrs.	Fatimah Hasan Mohammed	Head of ANS section
Iraq / Sulaimaniyah International Airport	Mr.	Sirwan Ahmed Mohammed	CNS/ATM manager
Jordan / JANS/CARC	Mr.	Ali Taleb Nemer Emrazeeq	ANS OPS Director
Jordan / CARC	Mr.	Mohammad Abu Salah	ANS Inspector
Kuwait / DGCA	Mr.	Mustafa A. Al-tarrah	Head of Air Navigation Services Inspectors
Libya / Civil Aviation Authority	Mr.	Abdulhamid Salem Abani	Chief of airways unit
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Oman / CAA	Mr.	Rashid Al Kasbi	A/Chief Airspace Planning & Management
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Qatar, State of / Civil Aviation Authority	Mr.	Antonio Cardoso	ANS Inspector
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Qatar, State of / Civil Aviation Authority	Ms.	Maryam Al-Naimi	Air Traffic Controller Expert
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UAE / GCAA / Sheikh Zayed Air Navigation Center	Mr.	Mohamed Abdulla Al Ameri	Senior Specialist - Airspace Management
UAE / GCAA	Mr.	Saqr Almarashda	Senior Manager Airspace Management / ASM WG Chairperson
Yemen / Civil Aviation and Meteorology Authority (CAMA)	Mr.	Awsan Anwar Ahmed Taher	Director of ATS department, Aden Int'l Airport, Yemen
Yemen / Civil Aviation and Meteorology Authority (CAMA)	Dr.	Younis Saeed Ahmed AL-Khader	Director General of Air navigation
EUROCONTROL	Mr.	TIHOMIR TODOROV	Head of Section Airspace Design
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ICAO MID	Mr.	Hisham Samir	System Administrator
- END -			