ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

A UN SPECIALIZED AGENCY

PPT6: Airspace Managements Challenges and Priorities

ICAO MID – October 2024

Overview

1. FIR/SRR Boundary PfA
2. Unidirectional AWY & FIR boundary point
3. Implementation of PBN in Enroute
4. Implementation of reduction longitudinal separation
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FIR/SRR Boundary PfA

The MIDANPIRG/20 meeting reiterated that a review of the FIRs descriptions should be conducted by the States and stressed the importance of supporting a process for checking alignment, and validation of data accuracy. Moreover, the meeting agreed that a step-by-step approach should be used in populating the Tables ATM I-1 and SAR I-1.

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

That,

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

Despite of MIDANPIRG conclusions and ICAO MID follow up since 2017, so far, the progress of development of PfAs to incorporate MID FIRs/SRRs in MID ANP Volume I is moving very slowly. The following is the current status:

- based on PfA MID ANP-I 20/01 – ATM/SAR originated by Qatar, ICAO Council approved establishment of a Doha Flight Information Region (FIR) / Search and Rescue Region (SRR) with C-DEC-225/10 on 11 March 2022. The required coordinates added to MID ANP Volume I relevant tables accordingly.

- due to number of inconsistencies between State publications (AIP), further to intense coordination, inconsistencies related to three (3) States have been eliminated; **Iraq, Libya and Syria.**

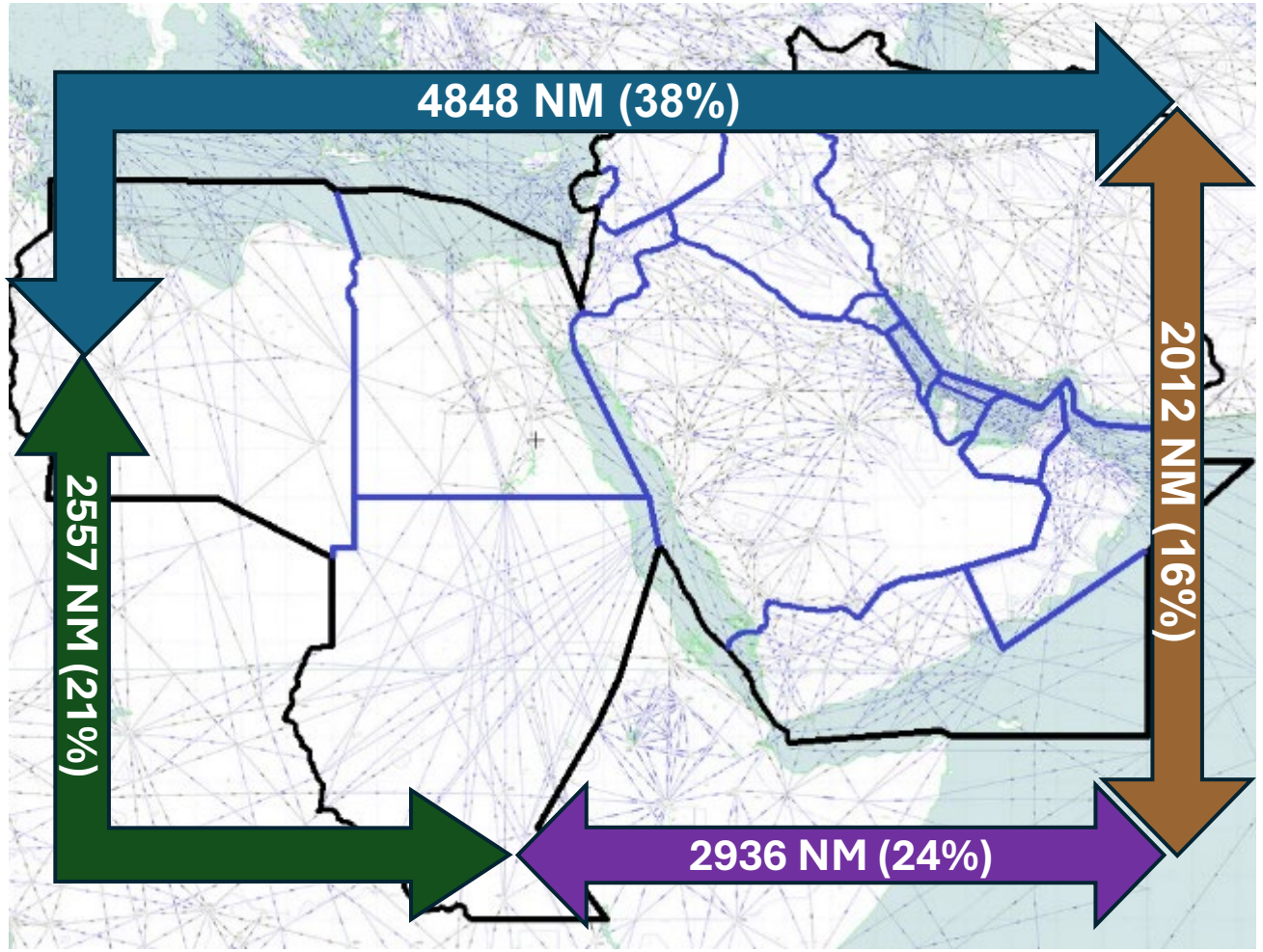
- as requested by Libya and with the support from ICAO MID, required PfA related to Tripoli FIR and SRR is being processed.

State	State AIP	ANP Volume I, FIR	ANP Volume I, SRR	Remark
Bahrain	ENR 2.1			
Egypt	ENR 2.1			
Iran	ENR 2.1			
Iraq				
Jordan	ENR 2.1			
Kuwait	ENR 2.1			
Lebanon	ENR 2.1			
Libya	ENR 2.1			PfA ongoing
Oman	ENR 2.1			
Qatar	ENR 2.1			
Saudi Arabia	ENR 2.1			
Sudan	ENR 2.1			
Syria	ENR 2.1			
UAE	ENR 2.1			
Yemen	ENR 2.1			

Unidirectional
AWY & FIR boundary point

The structure of MID airspace regarding implementation of “unidirectional ATS route and FIR boundary” is laid out as follows:

- the total length of FIR boundary in the MID region is almost 21749 NM.
  - 9396 NM between MID FIRs (43%)
  - 12353 NM between MID region and adjacent rejoins (57%)
    - Euro region, 4848 NM (39%)
    - APAC region, 2012 NM (16%)
    - ESAF region, 2936 NM (24%)
    - WACAF region, 2557 NM (21%)

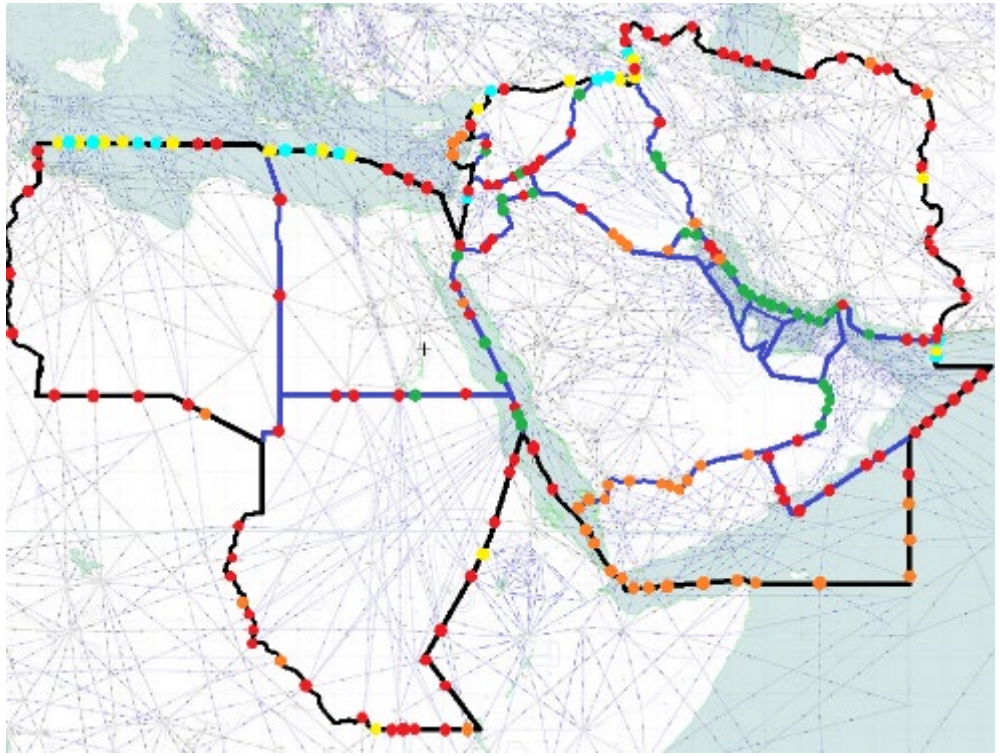


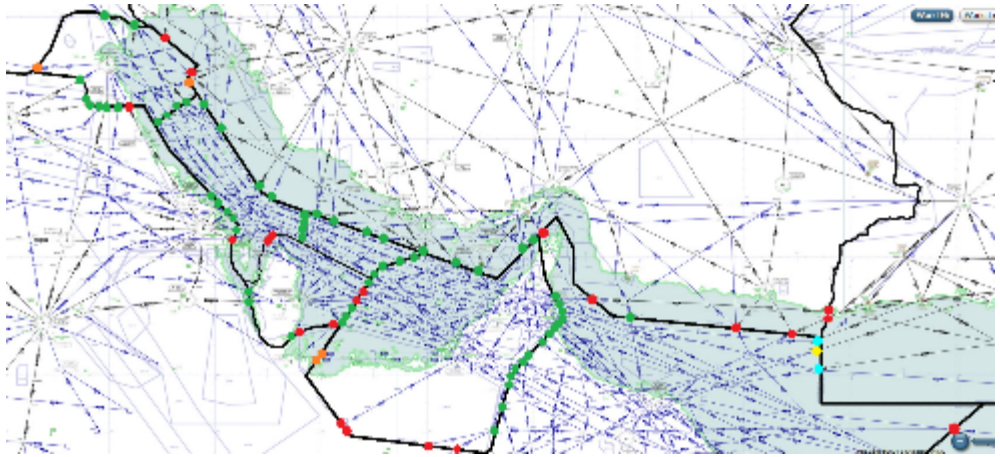
Note: to optimize the MID airspace, coordination at an inter-regional level is crucial.

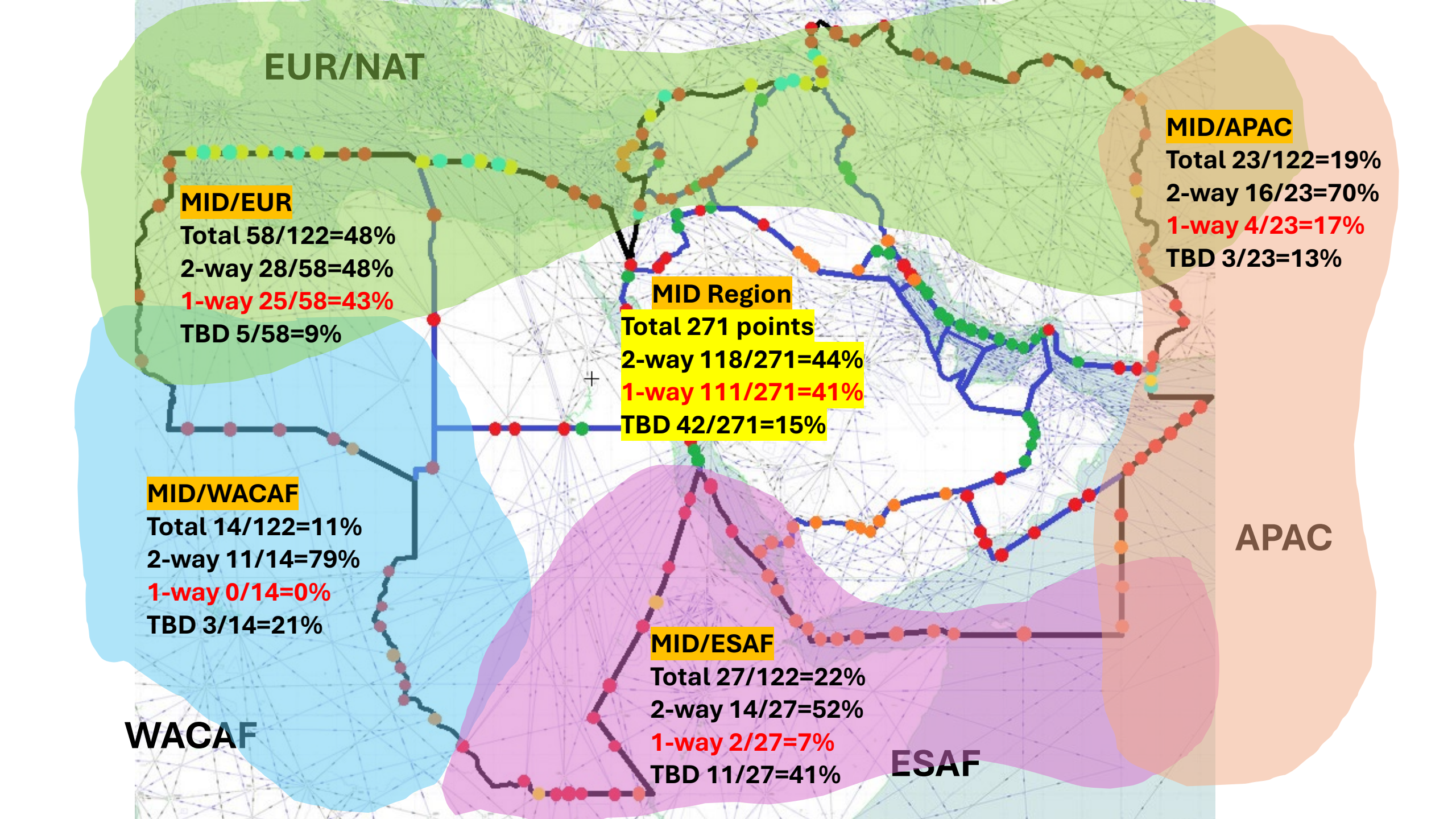
- The total number of FIR boundary point in the MID region is 271.
  - 149 between MID FIRs (55%)
    - One-way, 80 (54%)
    - Two-way, 49 (33%)
    - Not determined, 20 (13%)
  - 122 between MID region and adjacent rejoins (45%)
    - One-way, 31 (25%)
    - Two-way, 69 (57%)
    - Not determined, 22 (18%)

Note 1: distribution of unidirectional routes and FIR points in the Gulf area is 66 out of 80 (83%) .

Note 2: distribution of unidirectional routes and FIR points at interface with the EUR is 28 out of 58 (48%).






EUR/NAT
MID/EUR
Total 58/122=48%
2-way 28/58=48%
1-way 25/58=43%
TBD 5/58=9%
MID/APAC
Total 23/122=19%
2-way 16/23=70%
1-way 4/23=17%
TBD 3/23=13%
MID Region
Total 271 points
2-way 118/271=44%
1-way 111/271=41%
TBD 42/271=15%
MID/WACAF
Total 14/122=11%
2-way 11/14=79%
1-way 0/14=0%
TBD 3/14=21%
APAC
MID/ESAF
Total 27/122=22%
2-way 14/27=52%
1-way 2/27=7%
TBD 11/27=41%
WACAF
ESAF

Implementation of PBN in Enroute

Introduction

- Regarding implementation of RNAV 5 in the MID region, the MIDANPIRG/12 endorsed the following.

MIDANPIRG CONCLUSION 12/9: ***RNAV 5 IMPLEMENTATION IN THE MID REGION***

That, States that have not yet done so, be urged to:

a) update their AIP to change RNP 5 to RNAV 5; and

b) take necessary measures to implement RNAV 5 area in the level band FL160 - FL460 (inclusive).

- Establishment of parallel ATS routes in the MID region should consider the below minimum route spacing and availability of the required CNS infrastructure details in Doc 9613:

a) for RNAV 5 ATS Routes should be spaced at least by a lateral distance of 16.5NM for unidirectional and 18NM for bi-directional tracks.

b) for RNAV 1 ATS routes based on a standard a 7 NM in a high density en-route system.

State	RNAV 5 (FL160-460)	Reference	Remark
Bahrain	✓	AIP, ENR 3.3	• All ATS route above 4500FT are RNAV 1 • All route even conventional routes were published under ENR 3.3
Egypt	✓	AIP, ENR 3.1-1	All ATS routes published under ENR 3.1
Iran	✓	AIP, ENR 3.1 ATS route table	RNAV 5 implemented above FL285 & published in ENR 3.3
Iraq	✓	AIP, ENR 3.3 ATS route table	All route even conventional routes were published under ENR 3.3
Jordan		AIP, ENR 3.2 and 3.3	RANV routes published under ENR 3.3
Kuwait	✓	AIP, ENR 2.3	RNAV routes were not published under ENR 3.3
Lebanon	✗	AIP, ENR 3.3 ATS route table	Published as RNP 5
Libya	✗	AIP, ENR 3.3 ATS route table	Published as RNP 5
Oman	✓	AIP, GEN 1.7-3 item 4	RNAV 1 and 5 as described in ENR 3.2
Qatar	✓	AIP, GEN 3.3 ATS route table	• RNAV 1 implemented • All route even conventional routes were published under ENR 3.3
Saudi Arabia	✓	AIP, GEN 3.3 ATS route table	RNAV 1 and 5 as described in ENR 3.3
Sudan	✓	AIP, ENR 3.3 ATS route table	As indicated in the table, RNAV 5 implemented above FL285
Syria	✗	AIP, ENR 3.3 ATS route table	All route even conventional routes were published under ENR 3.3
UAE	✓	AIP, ENR 3.3.1	• All ATS route above 4500FT are RNAV 1 • All route even conventional routes were published under ENR 3.3
Yemen	✓	AIP, ENR 3.1 ATS route table	All route even RNAV routes were published under ENR 3.1

Based on the above, the following challenges were observed:

- One State (7%) has not published navigating specification in its AIP.
- Change from RNP 5 to RNAV 5 was not published by 2 States (13%).
- In the AIP of 3 States (20%) RNAV 5 layer was not defined/published.
- The publication of RNAV routes lacks harmonization, and it differs from State to State (publication under ENR 3.1, ENR 3.2, ENR 3.3, or a combination of the three).
- The route spacing in some States is less than the assigned criteria.
- The route spacing at interface with APAC is more than 50 NM and majority of the routes are converging at FIR boundary points.

Implementation of reduction of longitudinal separation

MIDANPIRG/13 meeting, through Conclusion 13/5, encouraged MID States to implement reduction of longitudinal separation:

MIDANPIRG CONCLUSION 13/5: ***IMPLEMENTATION OF REDUCED RADAR LONGITUDINAL SEPARATION IN THE MID REGION***

That,

a) States, that have not yet done so:

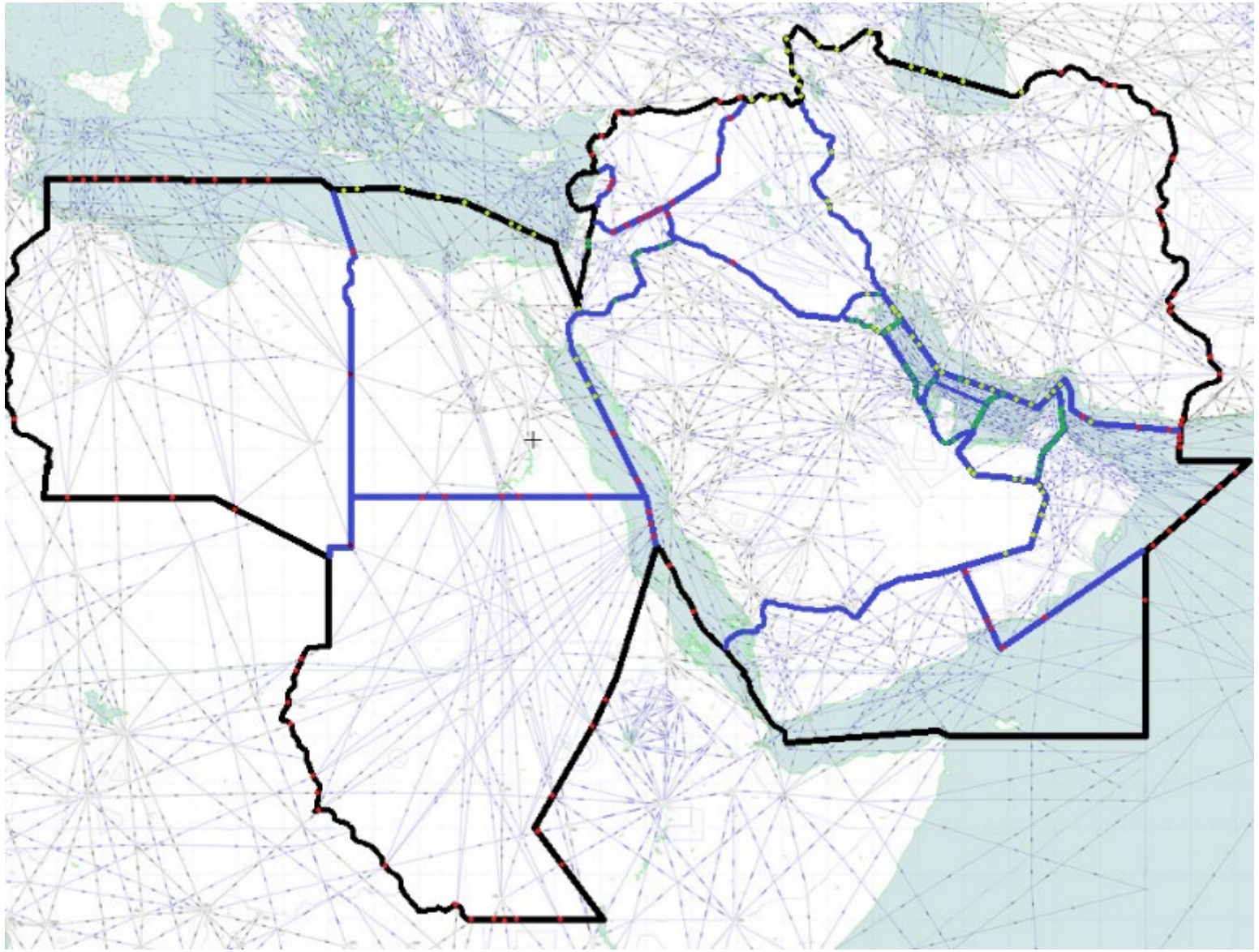
i. be urged to implement the 20 NM radar longitudinal separation;

ii. be encouraged to further reduce the radar longitudinal separation within the MID Region to 10 NM, where appropriate; and

iii. be invited to agree with their neighboring FIRs/States on the date of implementation and updating of the LoAs;

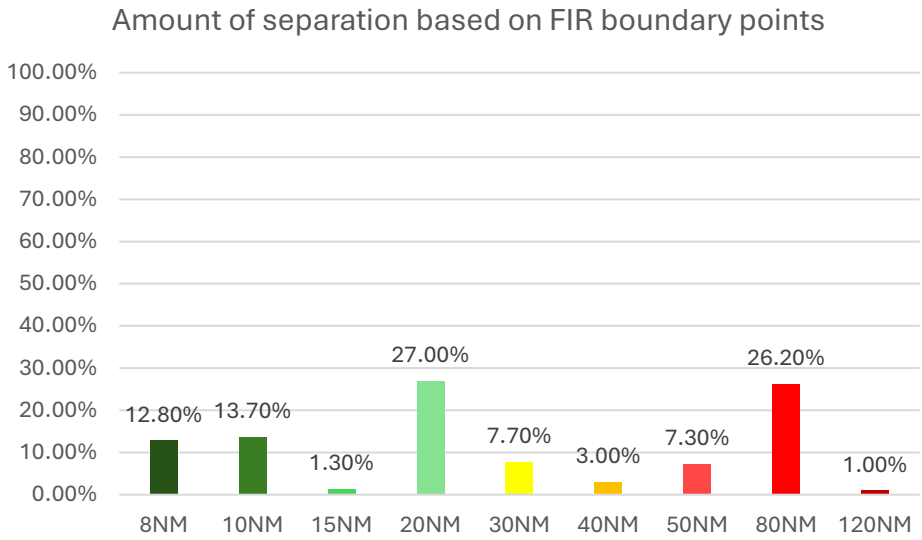
b) the ATM SG monitor the status of implementation and take appropriate actions to foster the implementation.

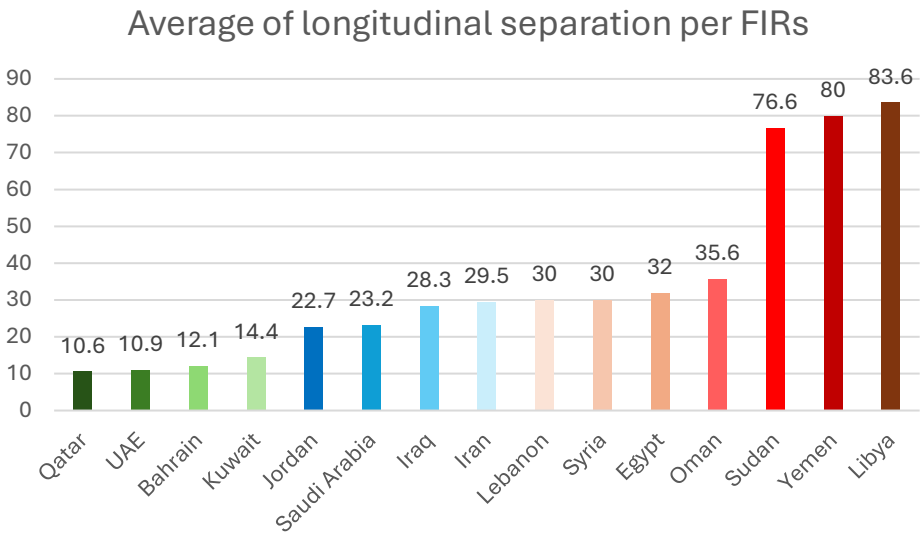
State	Inside FIR	Reference	At interface (range)	Remark
Bahrain	5 NM	AIP, ENR 1.6	8-20 NM	20 transfer points
Egypt	10 NM	AIP, ENR 1.6	15-120 NM	22 transfer points
Iran	20 NM	AIP, ENR 1.6	10-50 NM	55 transfer points
Iraq	5 NM	AIP, ENR 1.6	10-80 NM	12 transfer points
Jordan			10-80 NM	15 transfer points
Kuwait	5 NM	AIP, ENR 1.6	10-20 NM	16 transfer points
Lebanon	✕	-	30 NM	• Surveillance is available but in ENR 1.6 no procedure related to separation was published • 2 transfer points
Libya	✕	-	80-120 NM	• Procedural service • 22 transfer points
Oman	5 NM	AIP, ENR 1.6	8-80 NM	43 transfer points
Qatar	10 NM	AIP, ENR 1.6	8-20 NM	21 transfer points
Saudi Arabia	10 NM	AIP, ENR 1.6	10-80 NM	44 transfer points
Sudan	10 NM	AIP, ENR 1.6	30-120 NM	29 transfer points
Syria	20 NM	AIP, ENR 1.6	30 NM	• Procedural service • 13 transfer points
UAE	5 NM	AIP, ENR 1.6	8-20 NM	37 transfer points
Yemen	80 NM	-	80 NM	• Procedural service • 33 transfer points



Interface	1-WAY route & FIR boundary point	Separation 20 NM or less	Remark
APAC	4/23 (17%)	0/23 (0%)	Separation never less than 50 NM
ESAF	2/27 (7%)	0/27 (0%)	Separation never less than 80 NM
EUR	25/58 (43%)	28/58 (48%)	Separation never less than 20 NM
WACAF	0/14 (0%)	0/14 (0%)	Separation never less than 80 NM
Gulf area	68/105 (65%)	87/105 (83%)	Kuwait, Bahrain, Qatar, UAE and Oman

- If the reduction of longitudinal separation is calculated based on State AIPs, 9 out of 15 States representing 60% of States have implemented longitudinal separation of 10 NM or lower.
- If reduction of longitudinal separation is calculated based on LoAs, 4 out of 15 States representing 27% of States have implemented longitudinal separation of 20 NM or lower.
- based on the second methodology, the current average longitudinal separation at regional level is 35.07 NM
- using the second methodology and considering the weight of the number of operations, will provide more precise results.

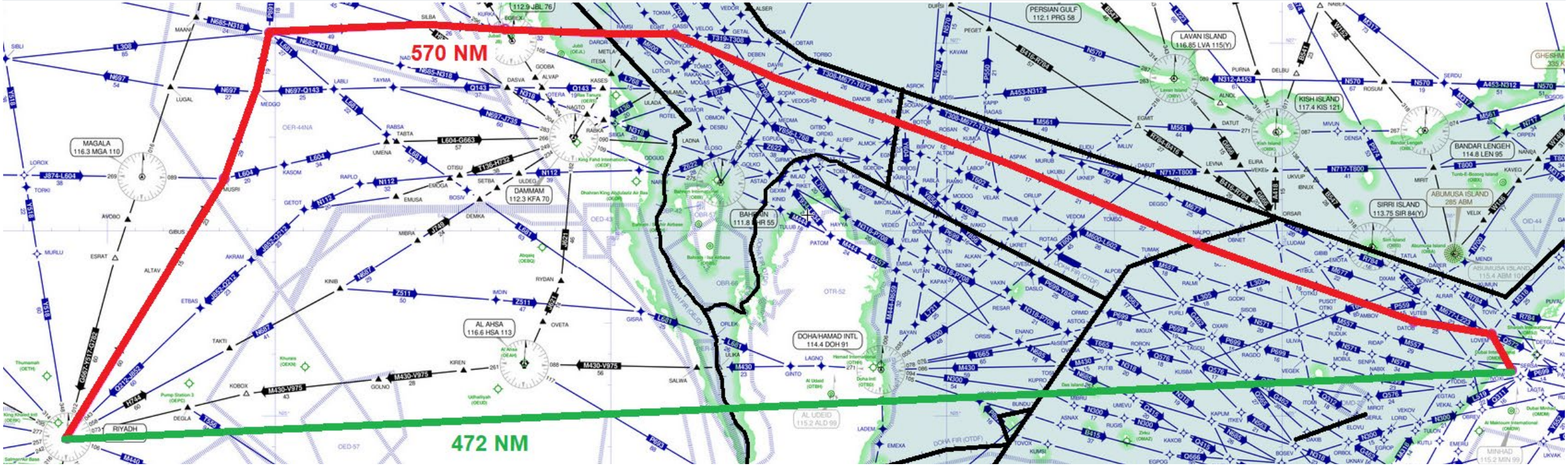




ATS route structure efficiency

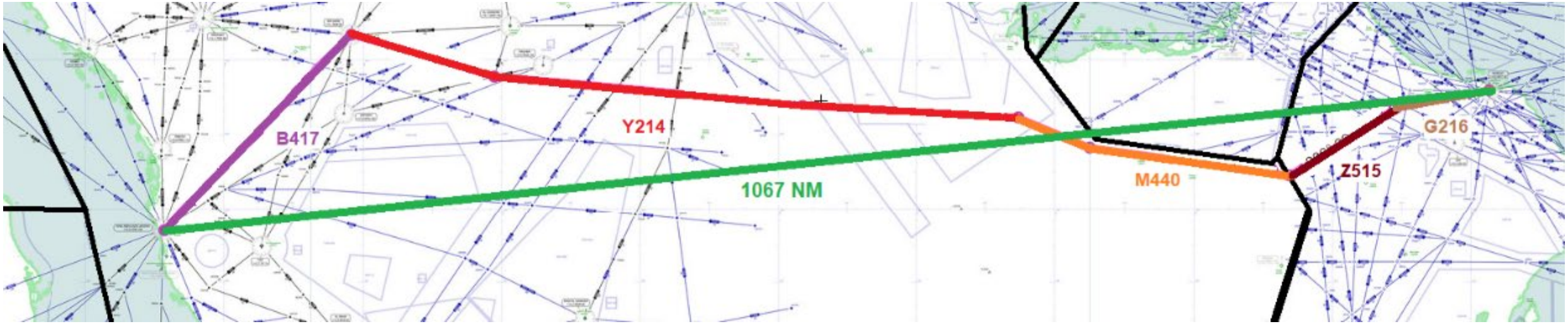
Route	Distance	Annual flight	Total Distance	Fuel consumption (B737 Max)	CO2 emissions
Current	570	1003*12=12036	12036*570 6,860,520 NM	2480 kg *12036 29,849 t	94,024 t
DCT	472	1003*12=12036	12036*472 5,680,992 NM	2026 kg*12036 24,794 t	78,101 t
Difference	98 NM	-	1,179,528 NM	5,055 t	15,923 t

The term efficiency referred to flight time and the amount of fuel consumed while CO2 emissions are related to environment



Route	Distance	Annual flight	Total Distance	Fuel consumption (B737 Max)	CO2 emissions
Current	1154	1292*12=15,504	15504*1154 17,891,616 NM	5000 kg *15504 77,520 t	244,188 t
DCT	1067	1292*12=15,504	15504*1067 16,542,768 NM	4640 kg*15504 71,939 t	226,608 t
Difference	87 NM	-	1,348,848 NM	5,581 t	17580 t

The term efficiency referred to optimum trajectory (flight time and the amount of fuel consumed etc.) while CO2 emissions are related to environment



ATS route Catalogue

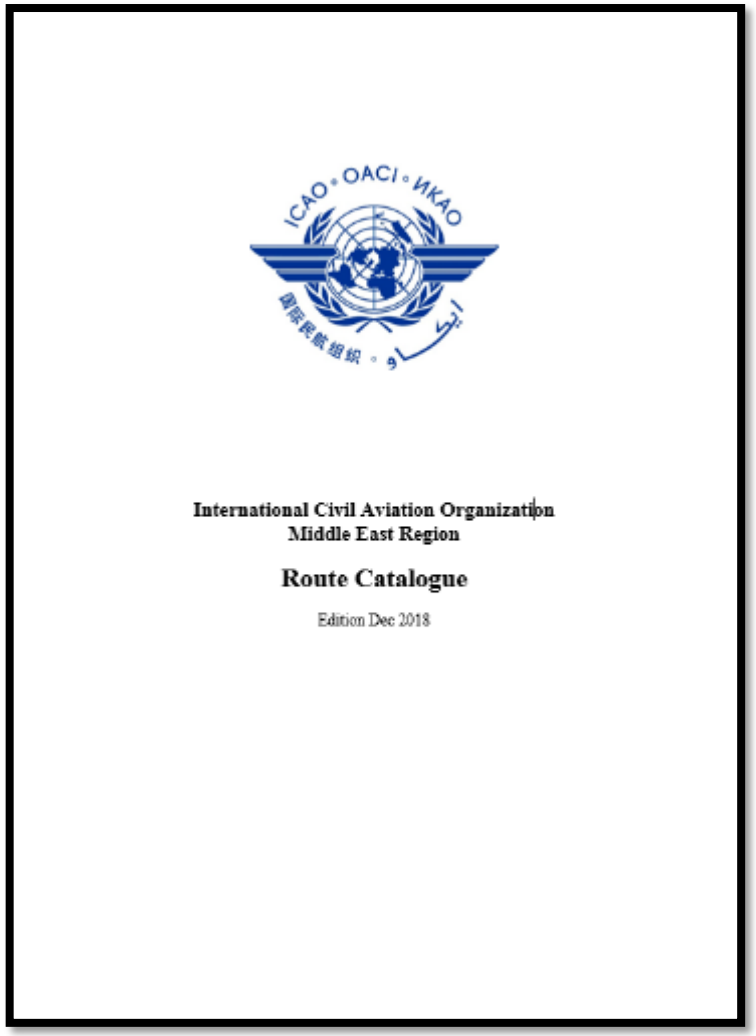
MIDANPIRG CONCLUSION 17/18: ***MID RDWG AND MID REGION ATS ROUTE CATALOGUE***

That, States be urged to:

a) use the MID Route Development Working Group (MID RDWG) as the main platform to facilitate bilateral and multilateral coordination related to the improvement of the ATS Route Network and airspace management in the MID Region; and

b) review the MID Region ATS Route Catalogue and take actions related to the implementation of the ATS proposals relevant to their FIRs.

Based on lesson learned in ARN TF meeting, ASM WG is required to review and update existing catalogue (edition 2018) and consolidate all ATS route proposals in this catalogue as a solid reference for tracking and recording the progress of establishment of the proposed ATS routes at regional level.



ATS route designator

The MIDANPIRG 21 meeting noted that based on a study carried out by the ICAO MID Office, several ATS route designators are used for the same route within/at interface of the MID Region which is having an impact on the availability of route designators and complicate the flight planning.

MIDANPIRG CONCLUSION 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

The MSG/6 meeting noted that the prefix “U” be removed from route designators providing that the limits of the ATS routes be clearly published in the AIPs.

MSG CONCLUSION 6/9: REMOVAL OF PREFIX “U” FROM ROUTE DESIGNATORS

That, the ICAO MID Office:

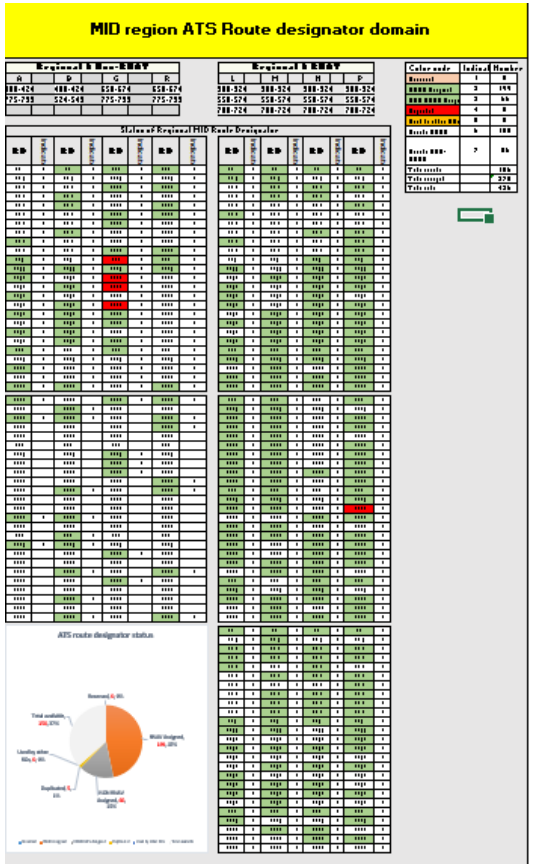
a) States take necessary measures to remove the prefix “U” from the route designators published in their AIPs to be completed by December 2020;

b) a Proposal for Amendment to the MID eANP Volume II-Specific Regional Requirements - Table ATM II-MID-1 - MID Region ATS Routes be processed to remove the prefix ‘U”; and

c) States support the MID Office to optimize the use of route designators in the MID Region.

State	“U” AIP	Change route designator PfA MID.II.2201-ATM & MID.II.2302-ATM
Bahrain		T557 to L557, Y604 to L704, Y856 to M556, T308 to M708, Z622 to M722, T872 to N572, T602 to N702, T319 to P319, T430 to P550, T444 to P700, T934 to P713
Egypt		
Iran		
Iraq	UL602, UM860, UP975, etc.	
Jordan	UM690, UR785, UB544, etc.	
Kuwait		
Lebanon	UM425, UL620, UN438, etc.	
Libya		
Oman	UB424, UL425, UB535, etc.	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
Qatar	UB415, UB457, UL305, etc.	Y604 to L704, T665 to N700, T430 to P550, T444 to P700
Saudi Arabia		G674, G799, M309 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, J874 to N704, Y517 to N707, J749 to N709, 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
Sudan		
Syria		
UAE		T665 to N700, Q415 to N715
Yemen		L566 to Y101, P552 to Y103, R799 to Y105, Z515 to M717 and establish LADLI-PUTSO

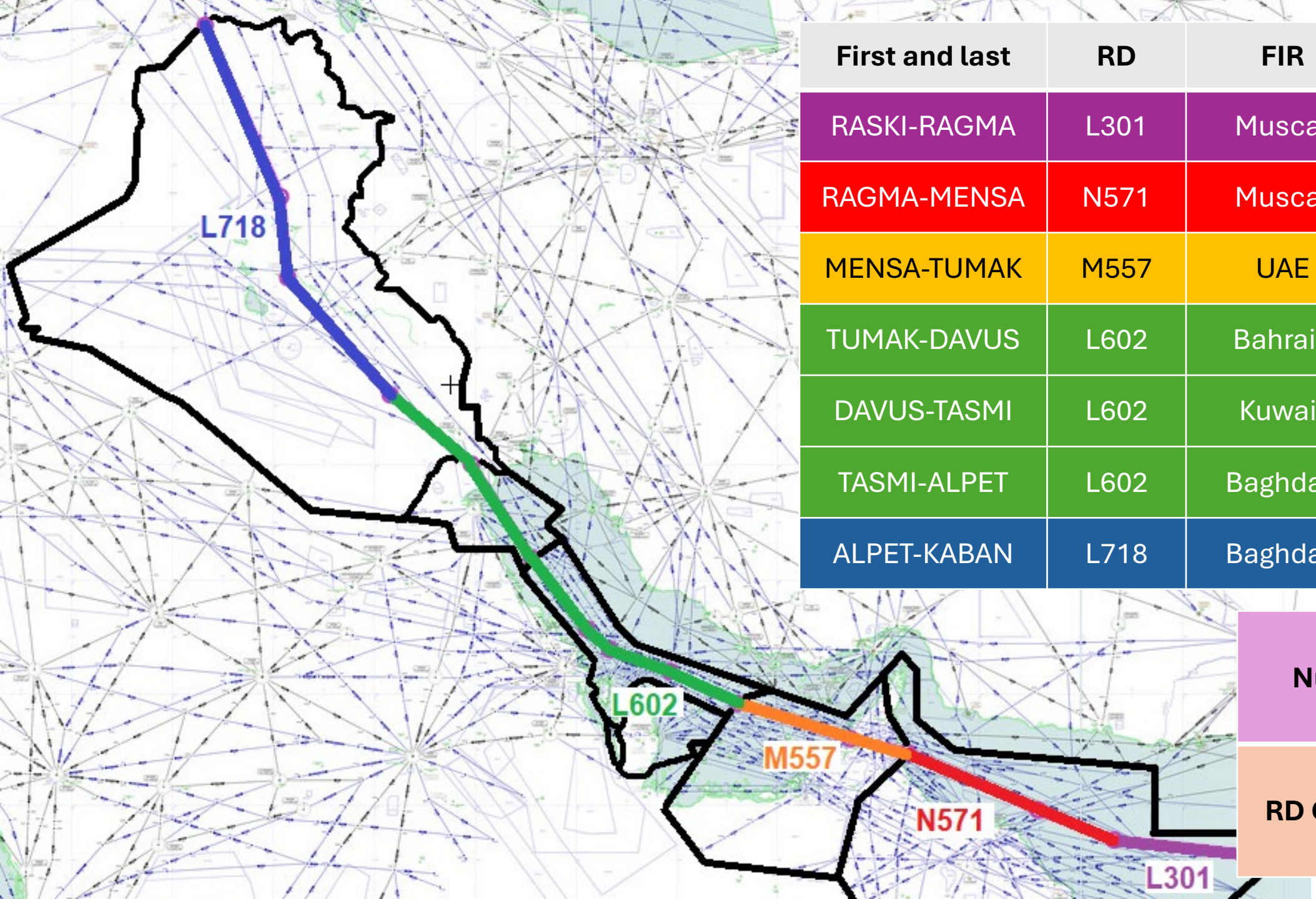
The meeting may wish to note that the total number of regional route designators allocated to the MID region is 426



- 122 (29%) Non-RNAV
  - 66 (54%) Non-RNAV designators assigned
  - 56 (46%) designators not assigned

- 304 (71%) RNAV
  - 205 (67%) RNAV designators assigned
  - 99 (33%) designators not assigned

Regional & Non-RNAV				Regional & RNAV			
A	B	G	R	L	M	N	P
400-424	400-424	650-674	650-674	300-324	300-324	300-324	300-324
775-799	524-549	775-799	775-799	550-574	550-574	550-574	550-574
				700-724	700-724	700-724	700-724



First and last	RD	FIR	Distance
RASKI-RAGMA	L301	Muscat	179 NM
RAGMA-MENSA	N571	Muscat	244 NM
MENSA-TUMAK	M557	UAE	190 NM
TUMAK-DAVUS	L602	Bahrain	242 NM
DAVUS-TASMI	L602	Kuwait	116 NM
TASMI-ALPET	L602	Baghdad	109 NM
ALPET-KABAN	L718	Baghdad	418 NM

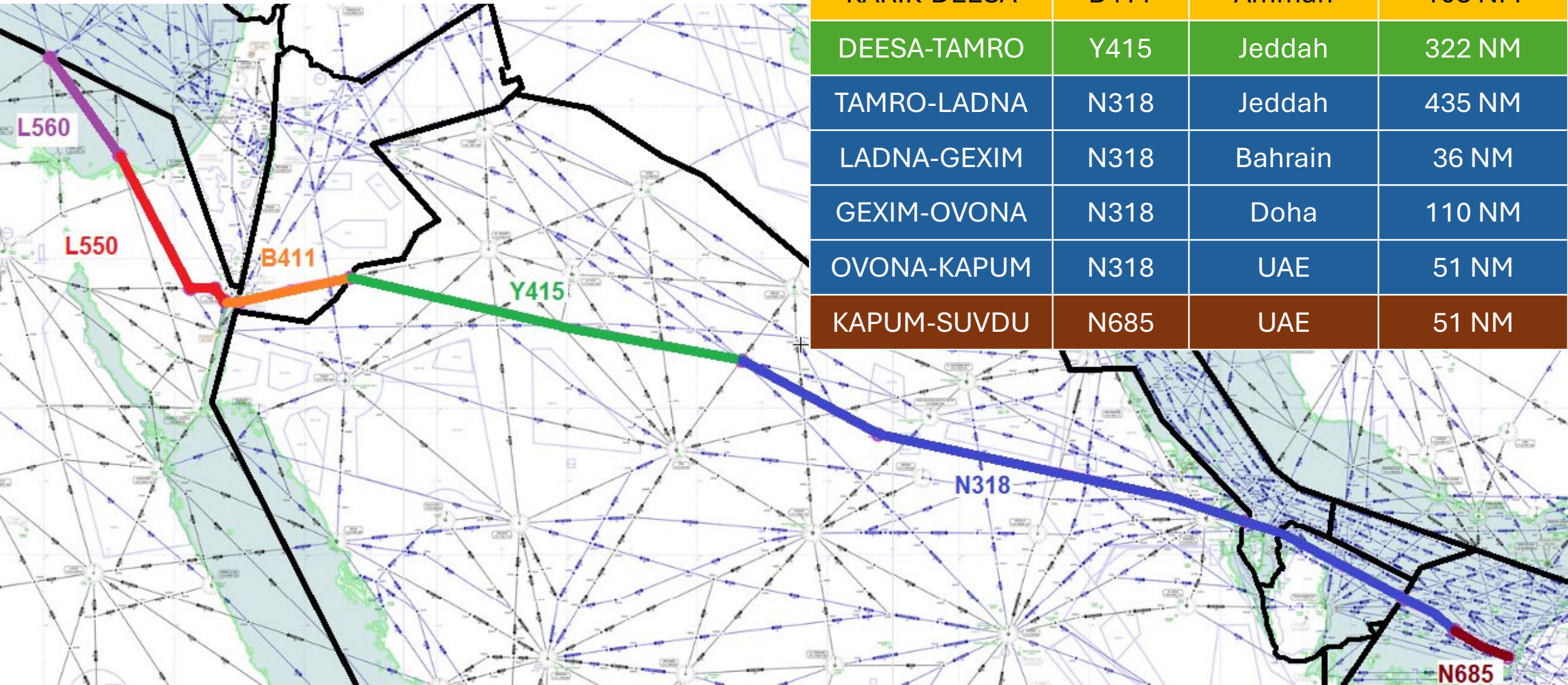
Number of FIR: 5

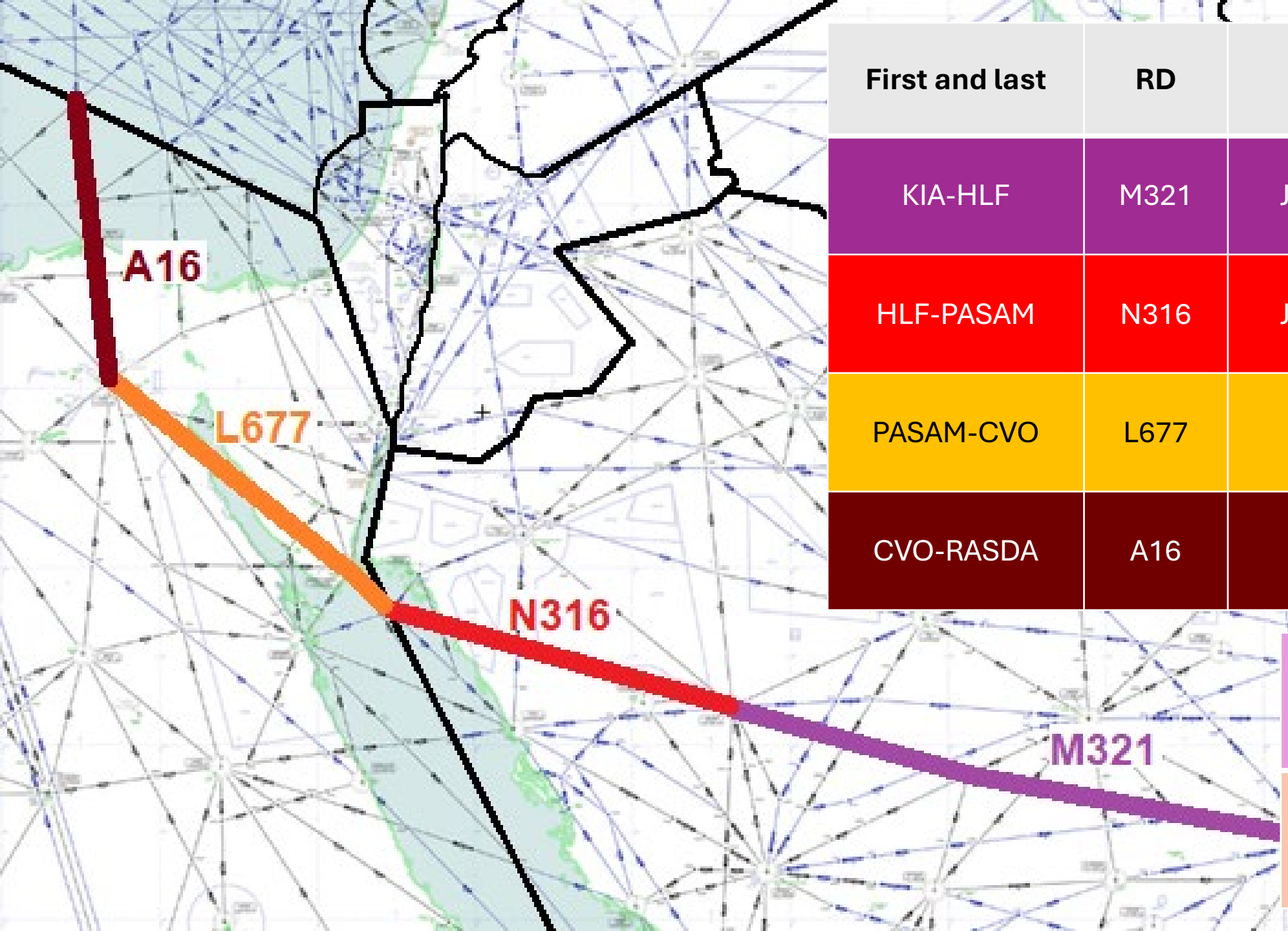
RD Changes: 5 times

Number of FIR: 6

RD Changes: 6 times

First and last	RD	FIR	Distance
LAKTO-SERMA	L560	Cairo	93 NM
SERMA-KARIK	L550	Cairo	152 NM
KARIK-DEESA	B411	Amman	103 NM
DEESA-TAMRO	Y415	Jeddah	322 NM
TAMRO-LADNA	N318	Jeddah	435 NM
LADNA-GEXIM	N318	Bahrain	36 NM
GEXIM-OVONA	N318	Doha	110 NM
OVONA-KAPUM	N318	UAE	51 NM
KAPUM-SUVDU	N685	UAE	51 NM





First and last	RD	FIR	Distance
KIA-HLF	M321	Jeddah	417 NM
HLF-PASAM	N316	Jeddah	242 NM
PASAM-CVO	L677	Cairo	243 NM
CVO-RASDA	A16	Cairo	182 NM

Number of FIR: 2

RD Changes: 4 times

Deficiencies Related to ATS routes

ATS route subject to further coordination

RD	State	Issue	Action required
B15	Lebanon	BALMA (FIR boundary) to KRD is not in ANP	Lebanon may request to add in ANP
G2	Lebanon	ELIKA to KAD is not in ANP	Lebanon may request to add in ANP
L53	Jordan	GENEX to MOUAB is not in ANP	Jordan may request to add in ANP
L602	Iraq	GEPAP-ELEXI was deleted	Establish this segment
L715	Iraq	Entirely located in Baghdad FIR	Change RD to non regional
L417	Iraq	Entirely located in Baghdad FIR	Change RD to non regional
M203	Iraq	Entirely located in Baghdad FIR	Change RD to non regional
M861	Syria	ELEXI to DRZ deleted	Establish this segment
P751	Sudan, Eritrea, Yemen	TOKAR – DERKA in Eritrea changed to A451	The relevant segment change to P751

ATS routes subject to deficiency

RD	State	Issue	Remark
A418/UP574	Iran and UAE	KUMUN-PAPAR not implemented	Since 2006
G667	Iraq	ALSAN-ABD not implemented	Since 2006
G795	Iraq	RAF-BSR not implemented	Since 2008
A424	Iraq	LOTAN-LOVEK not implemented	Since 2008
G202	Syria	DAKWE - Damascus not implemented	Since 1997
L602	Syria	ELEXI-DRZ-GAZ not implemented.	Since 2003

Five Letter Name Codes (5LNC)

5LNC	State	Issue	Action required
MALLA	Syria	Not allocated in ICARD	Choose available 5LNC in ICARD
ADRA	Syria	Not complying with ICAO provisions	Change name in accordance ICAO provision
RDIMA	Syria	Not allocated in ICARD	Choose available 5LNC in ICARD
SWIDA	Syria	Not allocated in ICARD	Choose available 5LNC in ICARD
QAA01	Jordan	Not complying with ICAO provisions	Choose available 5LNC in ICARD
AMN01	Jordan	Not complying with ICAO provisions	Choose available 5LNC in ICARD
QTR01	Jordan	Not complying with ICAO provisions	Choose available 5LNC in ICARD
TAMIM	Yemen & Jordan	Duplicated	State was not registered in ICARD is required to change
RASKI	Oman & Saudi Arabia	Duplicated	State was not registered in ICARD is required to change
NOVEMBER	Syria	Not complying with ICAO provisions	Change SID/STAR name in accordance with ICAO provisions
KILO	Syria	Not complying with ICAO provisions	Change SID/STAR name in accordance with ICAO provisions
LIMA	Syria	Not complying with ICAO provisions	Change SID/STAR name in accordance with ICAO provisions
GOLF	Syria	Not complying with ICAO provisions	Change SID/STAR name in accordance with ICAO provisions
DELTA	Syria	Not complying with ICAO provisions	Change SID/STAR name in accordance with ICAO provisions
BRAVO	Syria	Not complying with ICAO provisions	Change SID/STAR name in accordance with ICAO provisions
LIMA	Syria	Not complying with ICAO provisions	Change SID/STAR name in accordance with ICAO provisions
KILO	Syria	Not complying with ICAO provisions	Change SID/STAR name in accordance with ICAO provisions
SIERRA	Syria	Not complying with ICAO provisions	Change SID/STAR name in accordance with ICAO provisions
TANGO	Syria	Not complying with ICAO provisions	Change SID/STAR name in accordance with ICAO provisions
TANF	Syria	Not complying with ICAO provisions	Change SID/STAR name in accordance with ICAO provisions

Implementation of CMC and FUA

MIDANPIRG CONCLUSION 19/19: MID CMC/FUA ACTION GROUP

That,

a) the MID CMC/FUA Action Group develop region specific complementary procedures for ICAO Doc. 10088, in order to ensure that the regional requirements related to Civil Military Cooperation and implementation of FUA Concept are addressed, including State aircraft operations under Due Regard in particular over the high seas, are covered;

b) the outcome of the MID CMC/FUA AG, be presented to ATM SG/8 meeting, for review.

MIDANPIRG CONCLUSION 20/31: CONTINUATION OF THE CMC/FUA ACTION GROUP

That, ICAO to organize a workshop to raise awareness among all stakeholders regarding the CMC implementation, including operations of due regard aircraft over high seas, and support State to develop the national CMC plan

MIDANPIRG/20 noted that the CMC/FUA Action Group reviewed the ICAO Guidance material Doc 10088: Manual on Civil – Military Cooperation in Air Traffic Management) and agreed that the manual will fully meet the needs and requirements of the MID States to develop their national CMC/FUA plan.

MIDANPIRG/21 encouraged States to develop their national Civil and Military Cooperation and Flexible Use of airspace procedures based on guidelines published in ICAO Doc 10088 and support the organization of the CMC/FUA Workshop/Seminar in 2024.

MIDANPIRG CONCLUSION 21/21: DISSOLUTION OF THE CMC/FUA ACTION GROUP

That, the CMC/FUA Action Group is dissolved.

Element		Applicability	Performance Indicators/ Supporting Metrics	Baseline	Target	Timeline	KPA/ KPI
Operational Threads							
NOPS							
NOPS B0/1	Initial integration of collaborative airspace management with air traffic flow management	Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Sudan, UAE	***Indicator*:*** % of States implementing ASM/ATFM techniques, procedures and tools for the initial establishment of an integrated collaborative airspace management and air traffic flow and capacity management process ***Supporting metric:*** Number of States implementing ASM/ATFM techniques, procedures and tools for the initial establishment of an integrated collaborative airspace management and air traffic flow and capacity management process. * As per the applicability area	(2022) 42%	70%	Dec 2022	Efficiency Capacity/ KPI 04 KPI 05 KPI 17 KPI 18 KPI 19/

Module	Elements	Bahrain	Egypt	Iran	Iraq	Jordan	Kuwait	Lebanon	Libya	Oman	Qatar	Saudi Arabia	Sudan	Syria	UAE	Yemen
B0-NOPS	B0/1															

Average Regional Implementation is **41.67%**

Element	Applicability	Performance Indicators/ Supporting Metrics	Baseline	Target	Timeline	KPA/ KPI
Operational Threads						
FRTO						
FRTO B0/2	Airspace planning and Flexible Use of Airspace (FUA)	Bahrain, Egypt, Jordan, Qatar, Saudi Arabia (2 ACCs), Sudan, UAE	***Indicator*:*** % of ACCs using and implementing appropriate means (procedures and tools (automation)) to support Airspace planning and FUA and improve data exchange between Civil and Military to improve efficiency of Airspace. ***Supporting metric:*** Number of ACCs using and implementing appropriate means (procedures and tools (automation)) to support Airspace planning and FUA and improve data exchange between Civil and Military to improve efficiency of Airspace. * As per the applicability area	(2022) 63%	70%	Dec 2022	Efficiency Access and equity/ KPI 04 KPI 05 KPI 17 KPI 18/ KPI 19

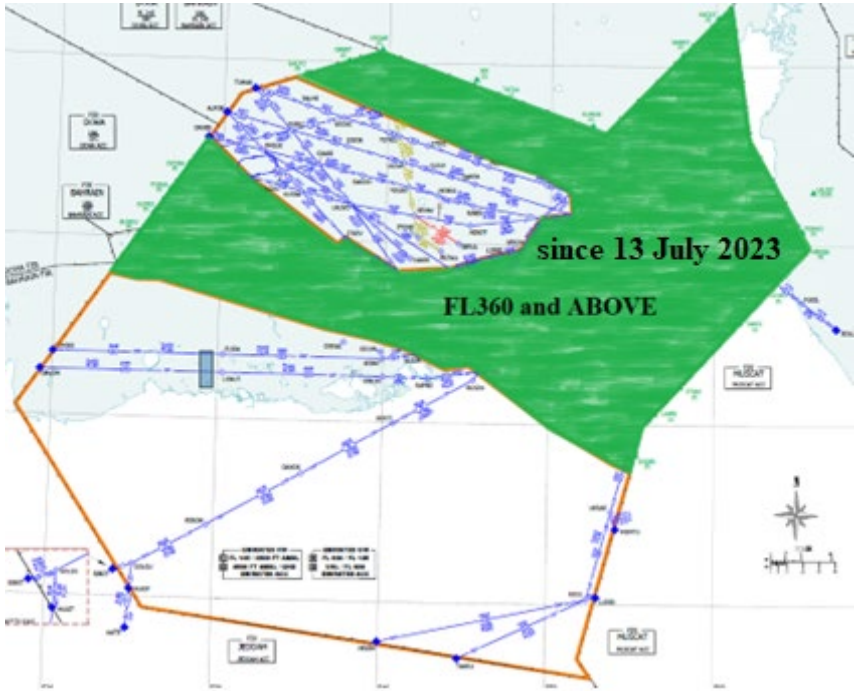
Module	Elements	Bahrain	Egypt	Iran	Iraq	Jordan	Kuwait	Lebanon	Libya	Oman	Qatar	Saudi Arabia	Sudan	Syria	UAE	Yemen
B0-FRTO	B0/2															

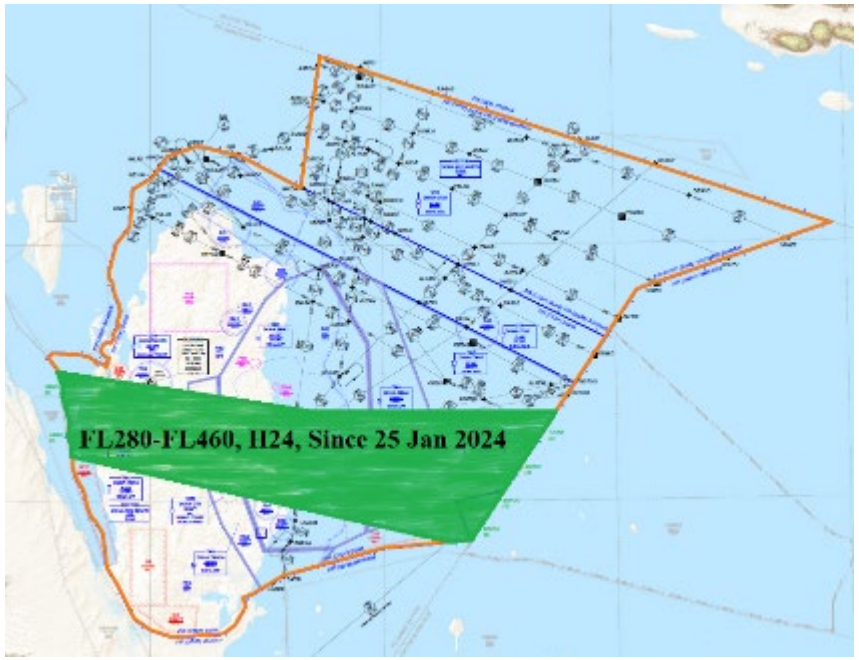
Average Regional Implementation is **71.4%**

FRA implementation

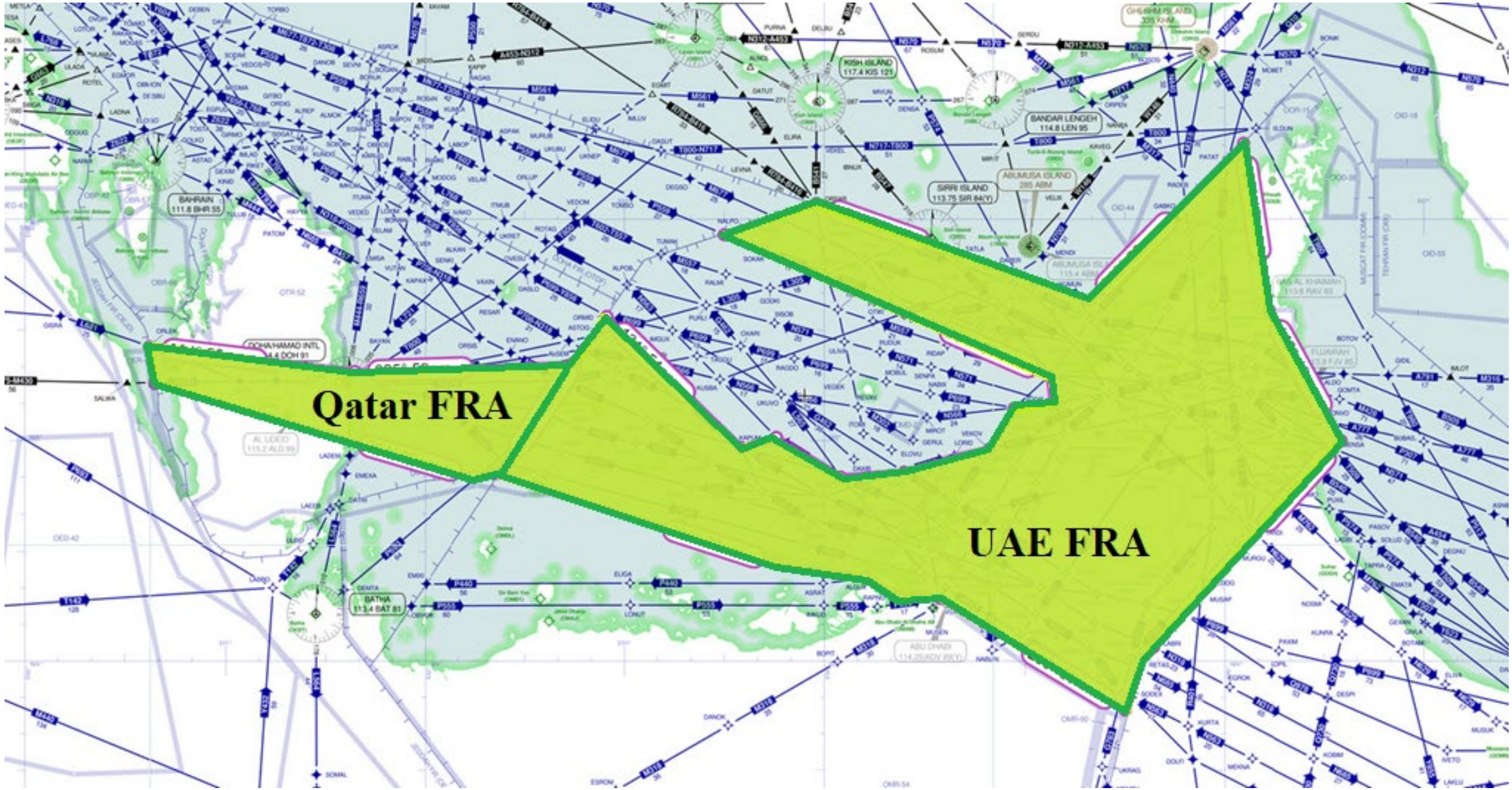
MIDANPIRG CONCLUSION 21/22: FREE ROUTE AIRSPACE (FRA) IMPLEMENTATION WORKSHOP

That, the ICAO MID Office organize Workshop in 2024 with support of IATA and concerned States and Stakeholder, to foster the implementation of FRA in the MID Region.





- **Qatar** and **UAE** implemented FRA partially to support the main flows in the region.
- FRA could be implemented either **partially** or **fully**.
- FRA could be implemented at **specific levels** and above at initial stage.
- FRA also could be implemented at specified duration. Implementation of FRA starts mostly at **night**.


Qatar FRA
UAE FRA

RAD, TOS, FLAS & LoA

State	RAD	TOS	FLAS	Remark
Bahrain	**Not implemented at regional level**	SUP 01/24-Standard route	SUP01/24-Standard route	TOS & FLAS in one table
Egypt		-	-	Not published in ENR 1.9, 1.10
Iran		SUP 2024.8-TOS	SUP 2024.8-TOS	TOS & FLAS in one table
Iraq		ENR 1.10 (FPL)	ENR 1.9 (ATFM)	
Jordan		-	-	Not published in ENR 1.9, 1.10
Kuwait		-	-	Not published in ENR 1.9, 1.10
Lebanon		-	-	Not published in ENR 1.9, 1.10
Libya		-	-	Not published in ENR 1.9, 1.10
Oman		ENR 1.9 (ATFM)	Referred to ENR. 3	
Qatar		ENR 1.10 (FPL)	In the dame table	
Saudi Arabia		SUP 01/24-RAD	SUP 01/24-RAD	TOS & FLAS in one table
Sudan		-	-	Not published in ENR 1.9, 1.10
Syria		-	-	Not published in ENR 1.9, 1.10
UAE		ENR 1.9 (ATFM)	Note under ENR 1.9	
Yemen		-	-	Not published in ENR 1.9, 1.10

State	LoA	Remark
Bahrain	Iran (2019), Kuwait (2019), Qatar (2022), Saudi Arabia (2014), UAE (2022)	
Egypt	Cyprus (2013), Greece (2012), Jordan (2022), Libya (2012), Saudi Arabia (2018), Sudan (2021)	Israel
Iran	Armenia (2007), Iraq (2018), Kuwait (2015), Oman (2015), Qatar (2022), Turkmenistan (2022), UAE (2017)	Azerbaijan, Afghanistan, Pakistan and Turkey
Iraq	Jordan (2013), Kuwait (2017), Saudi Arabia (2015), Syria (2013), Turkey (2017), Iran (2018)	
Jordan	Israel (2020), Saudi Arabia (2022), Syria (2006), Egypt (2022)	
Kuwait	Saudi Arabia (2020), Iraq (2017), Iran (2015), Bahrain (2019)	
Lebanon	Syria (2006)	Cyprus and Israel
Libya	Algeria (2008), Chad (2013), Malta (2013), Sudan (2008), Tunis (2008), Egypt (2012)	
Oman	India (2016), Pakistan (2015), Saudi Arabia (2022), UAE (2019), Yemen (2015), Iran (2015)	
Qatar	Saudi Arabia (2022), UAE (2022), Iran (2022), Bahrain (2022)	
Saudi Arabia	Sudan (2010), UAE (2022), Bahrain (2014), Egypt (2018), Iraq (2015), Jordan (2022), Kuwait (2020), Qatar (2022)	Eritrea, Yemen
Sudan	Egypt (2021), Libya (2008), Saudi Arabia (2010)	Brazzaville, Chad, Uganda, Eritrea, Ethiopia, Kenya
Syria	Cyprus (2006), Turkey (2011), Iraq (2013), Lebanon (2006), Jordan (2006)	Israel
UAE	Iran (2017), Oman (2019), Qatar (2022), Saudi Arabia (2022), Bahrain (2022)	
Yemen	Oman (2015)	India, Somalia, Djibouti, Ethiopia, Eritrea, Saudi Arabia

RPAS/UTM

PIRG/RASG DECISION 20/1: RPAS/UTM ACTION GROUP

That, the RPAS/UTM Action Group be:

a) established to support the development of UTM Capabilities in the MID Region, harmonize the integration of RPAS/UAS operation and provide feedback to the ATM SG, ASRG and SEIG; and

b) composed of the Chairpersons of the ATM SG, ASRG and SEIG; and representative of the aforementioned states and organization.

MIDANPIRG/21 meeting reviewed MIDANPIRG structure and dissolved the RPAS/UTM AG and included its work under the ASM WG

FF-ICE implementation

MIDANPIRG 21 meeting reviewed MIDANPIRG structure and agree to establish ASM WG to include the work proposed for FRA AG, GNSS AG and FF-ICE

Element		Applicability	Performance Indicators/ Supporting Metrics	Baseline	Target	Timeline	KPA/ KPI
FICE							
FICE B0/1	Automated basic inter facility data exchange (AIDC)	According to the MID Region AIDC/OLDI Priority 1 Applicability Area	Indicator*: % of priority 1 AIDC/OLDI Interconnection have been implemented. Supporting metric: Number of AIDC/OLDI interconnections implemented between adjacent ACCs.	(2023) 26%	70%	Dec 2026	N/A

Bahrain: Qatar, UAE, Saudi Arabia, Kuwait, Iran

Egypt: Jordan, Saudi Arabia, Cyprus, Greece

Iran: Turkey, Bahrain

Iraq: Turkey, Kuwait

Jordan: Egypt, Saudi Arabia

Kuwait: Iraq, Bahrain

Oman: UAE, Saudi Arabia, India

Qatar: Bahrain, UAE, Saudi Arabia

Saudi Arabia: Jordan, Bahrain, Qatar, Oman, Egypt, UAE

UAE: Bahrain, Qatar, Saudi Arabia, Oman

Module	Elements	Bahrain	Egypt	Iran	Iraq	Jordan	Kuwait	Lebanon	Libya	Oman	Qatar	Saudi Arabia	Sudan	Syria	UAE	Yemen
B0-FICE	B0/1															

Average Regional Implementation is **39.39%**.

Conclusion and priorities

Conclusion

This presentation addresses a variety of issues and challenges, each with its own nature. As a result, the following priorities are suggested:

- Low hanging fruit/Quick-Wins: identified issues/subjects requiring concrete action(s) that could be implemented in the short-term, which would contribute to the improvement of safety, efficiency and/or increase the capacity.

- Medium to long term: any identified issues/subjects requiring a more complex plan of actions and longer timelines (medium to long-term) for the completion of implementation, which would contribute to the improvement of safety, efficiency and/or increase the capacity.

Low hanging fruit/Quick-Wins

Subject	Action
Unidirectional AWY & FIR boundary point	The MID States conduct assessment regarding the status of traffic exchange at the interface of its FIR and the adjacent FIRs with focus on bidirectional airways and FIR boundary points and propose the required changes.
Implementation of PBN in enroute phase	States that have not yet incorporated the PBN navigation specification in accordance with MIDANPIRG CONCLUSION 12/9 should promptly take the necessary steps to publish it in their AIPs.
Implementation of reduction longitudinal separation	Implementation of Longitudinal separation in accordance with MIDANPIRG CONCLUSION 13/5
ATS route structure efficiency	The ASM WG in cooperation with States, propose adjustments to the route structure to achieve improved efficiency.

Low hanging fruit/Quick-Wins

Subject	Action
ATS route designators	Actions should be taken by concerned States to implement MSG Conclusion 6/9 (removing of the prefix "U“), update ATS route designators in accordance with the MID ANP Vol II, coordinate with the ASM WG and adjacent States for the implementation of MIDANPIRG Conclusion 21/5 (avoidance of unnecessary change of route designator).
Five Letter Name Codes (5LNC)	Actions should be taken by concerned States to comply with 5LNCs requirements.
Implementation of CMC and FUA	ASM WG to identify quick-wins regarding implementation of CMC and FUA.
ASM improvements	ASM WG to identify airspace management quick-wins related to the improvement of safety, efficiency and/or capacity (RAD, TOS, FLAS, LoA, etc.)

Thank You!

ICAO