International Civil Aviation Organization

**Middle East Air Navigation Planning and
Implementation Regional Group**

Fifteenth Meeting (MIDANPIRG/15)
(Bahrain, 8 – 11 June 2015)

Agenda Item 5.2.2:   Specific Air Navigation issues

MID REGION ATS ROUTE NETWORK

(Presented by the Secretariat)

SUMMARY
This paper presents the outcome of the ANSIG/1 and ATM SG/1 meetings related to ATS Routes, for the meeting review and action.   Action by the meeting is at paragraph 3.

REFERENCES
– ANSIG/1 Report   – ATM SG/1 Report

1. **INTRODUCTION**

1.1   The meeting may wish to note that the effective inter-regional coordination and collaboration between all stakeholders is essential in order to achieve seamless Air Traffic Management and more optimum routes through the airspace. Moreover, the implementation of Performance Based Navigation (PBN) routes can have significant efficiency benefits on flight operations in the Enroute environment.

2. **DISCUSSION**

2.1   The ANSIG/1 meeting (Cairo, Egypt, 10-12 February 2015) reviewed the outcome of the ATM SG/1 meeting (Cairo, Egypt, 9-12 June 2015). The meeting noted that a number of States were still implementing changes to the Regional ATS Route Network without complying with the established procedures for the amendment of the MID Air Navigation Plan (ANP).

2.2   In connection with the above, the ANSIG/1 meeting noted with concern that the Proposal for Amendment (PfA) Serial No. MID Basic ANP 13/01 – ATM, which was approved by the President of the ICAO Council on 2 August 2013, has not yet been implemented by Egypt and Jordan. Accordingly, the meeting urged the concerned States to take necessary measures in order to resolve this pending issue.

2.3   The ANSIG/1 meeting commended Bahrain for being the first State in the Region that completed, on 9 January 2014, the implementation of a full RNAV 1 ATS route structure. The following benefits were noted:

- 40% increase of airspace capacity;

- reduced workload and improved productivity of air traffic controllers; and
- reduction in CO_2 emissions: due to the dedicated airways for traffic landing within Bahrain FIR and traffic departing Bahrain FIR, which allowed users to reach their optimum levels without interruptions. This would facilitate the implementation of continuous climb and descend operations

2.4   Based on the above, States were encouraged to report the environmental benefits accrued from the implementation of the operational improvements to the ICAO MID Regional Office for inclusion in the Second MID Air Navigation Environmental Report.

2.5   The ANSIG/1 meeting noted that Bahrain and Iraq confirmed their readiness to implement the proposed RNAV 1 routes between Bahrain and Iraq through Kuwait FIR (Top Ten Routes TPR 9 and TPR 10, refers). The meeting noted that coordination is ongoing for the implementation of new RNAV routes between Bahrain, Kuwait and Iraq.

2.6   The ANSIG/1 meeting noted that Iran and Iraq restricted the use of G202 to certain airlines, which obliged users to fly longer routes via Kuwait or Turkey. Accordingly, the meeting urged the concerned States to remove the restriction on the use of the Route G202.

2.7   The meeting may wish to note that due to the situation in Iraq the coordination for the implementation of the proposed two (2) routes between Iraq and Saudi Arabia (RALTI- RAF and HFR-KABAN), were suspended.

2.8   In accordance with MIDANPIRG/14 Conclusion 14/11, the meeting reviewed and agreed to the proposed Top Ten Routes by the ATM SG/1 meeting, as at **Appendix A**. The meeting agreed to include TPR 2, TPR5, TPR 6 and TPR 7 in the MID Basic ANP Table ATS 1- ATS Route Network.

2.9   Based on the above, the ANSIG/1 meeting urged concerned States to implement the Top Ten Routes and provide the ICAO MID Regional Office with an update on the actions undertaken by **1 May 2015.**

2.10   The meeting may wish to note that as a follow-up action to the ANSIG/1 Draft Conclusion 1/3, the ICAO MID Regional Office processed PfA (Serial No.: MID Basic ANP 15/04 – ATM) which was circulated through State Letter Ref.: AN 6/5A - 15/136 dated 6 May 2015 with deadline for comment 6 June 2015.

2.11   The ANSIG/1 meeting noted that the MID ATS Route Catalogue, as updated by the ATM   SG/1   meeting,   is   available   on   the   ICAO   MID   website: (https://portal.icao.int/RO_MID/Pages/eDocs.aspx).

2.12   The ANSIG/1 meeting invited States to take into consideration the proposed routes contained in the routes Catalogue in their planning process for the improvements of the ATS route structure.

2.13   The ANSIG/1 meeting emphasized the importance of a regional solution to enhance the MID Region ATS route network, rather than to concentrate on local improvements. In this regard, the meeting agreed that this could be achieved through the MID Region ATM Enhancement Programme (MAEP) with the implementation of the MID ATS Route Network Optimization Project (ARNOP).

2.14   The meeting may wish to note that several contingency routes were implemented to accommodate the traffic redistribution due to the escalated situation in Iraq, Libya, Syria, Ukraine and Yemen.

2.15   The meeting may wish to note that the third meeting of the Ad-hoc Afghanistan Contingency Group (AHACG/3) was held in Muscat, Oman, from 11 to 14 May 2015. The meeting provided an opportunity to discuss inter-regional issues and agreement on necessary contingency arrangements for implementation in the event of the discontinuation of the ATS in Kabul FIR.

2.16   It is to be highlighted that Iran is the first State in the MID Region that successfully implemented Organized Track System (OTS) in Tehran FIR in order to accommodate the significant increase of air traffic due to air operators circumnavigating Baghdad FIR. The OTS will be the key component for the contingency routing in case Kabul FIR is not available.

2.17   The meeting may wish to note that the provisions related to the designators for significant points not marked by the site of a radio navigation aid, and the ICAO FIVE-LETTER NAME CODES (5LNCs) and Route Designators (ICARD) database, are contained in ICAO Annex 11 —*Air Traffic Services*, Appendix 2 —*Principles Governing the Establishment and Identification of Significant Points*.

2.18   Since the establishment of ICARD, States have updated the information in ICARD and used it in their route planning activities. However, in a recent review of the effectiveness of ICARD, the following issues related to 5LNCs have been identified causing potential safety-related issues:

    a) significant number of duplicated codes;
    b) like-sounding codes in close proximity or on the same flight plan route;
    c) shortage of available codes which are pronounceable and meet the sound-like proximity check requirements; and
    d) differences between 5LNC data registered in ICARD and published in national Aeronautical Information Publications (AIPs).

2.19   In light of the increasing need for 5LNCs to support implementation of Performance Based Navigation (PBN), ICAO is committed to maintaining an ICARD database system that meets the needs of States now and in the future. To accomplish this, ICAO is currently working on an update of the ICARD database system which should be completed by the end of 2015.

2.20   ICAO issued State Letter Ref.: AN 11/45.5-15/32 dated 7 May 2015 related to the ICARD data base system, inviting States to carry out the actions described below and to contact the accredited ICAO Regional Office should further support and guidance is required:

    a) to conduct a comparison of your State's list of 5LNCs recorded in ICARD and 5LNCs published in your national Aeronautical Information Publication (AIP) in order to identify any discrepancies;

    b) to inform the ICAO Regional Office accredited to your State of any 5LNCs that are used but not recorded in ICARD, as well as any 5LNCs that are allocated to your State but no longer used and which should be released from ICARD. Your State's contribution to this exercise will significantly reduce the creation of duplicated 5LNCs as well as enable ICAO to identify and resolve existing duplicated or like-sounding 5LNCs that have a potential safety impact; and

    c) to provide the ICAO Regional Office accredited to your State with an update of the name(s) of your nominated ICARD authorized user, if your State has not already done so, in order to maintain an accurate and current list of authorized ICARD users. Upon receipt of the names, the Regional Office concerned will validate the State ICARD authorized user and, if necessary, provide instructions on how to register for access to ICARD through the ICAO Secure Portal and subscribe to the ICARD database to be added as a State authorized ICARD 5LNC Planner.

2.21   In connection with the above, it's to be underlined that any assignment of route designators should be coordinate with the ICAO MID Regional Office, in order to ensure compliance with Annex 11 provisions.

3.   ACTION BY THE MEETING

3.1   The meeting is invited to:

a) urge States to:

    i.   adhere to the established ICAO procedures related to the publication and amendment of ATS routes;

    ii.   take necessary measures to implement the identified Top ten routes at **Appendix A**, and provide the ICAO MID Regional Office with an update on the action undertaken by **1 October 2015**;

    iii.   take all the necessary measures to implement the planned routes or route segments included in their deficiency list, which will enhance the ATS route network in the MID Region;

    iv.   reply to the State Letter Ref.: AN 11/45.5-15/32 dated 7 May 2015 related to the ICARD data base system, if not yet done so;

    v.   coordinate with the ICAO MD Regional Office the assignment/changes related to route designators; and

b) urge Sates and airspace users to identify and report 5LNCs duplication and/or like-sounding issues to the ICAO MID Regional Office to recommend appropriate solutions.

APPENDIX A

MID TOP 10 PROPOSED ATS ROUTES

TPR	ATS Route Catalogue Reference	ATS Route Affected	States Concerned	Status			Remarks
				Reviewed by	Date	Changed	
(a)	*(b)*	*(c)*	*(d)*	*(e)*	*(f)*	*(g)*	*(h)*
1	RC-035	UL602	Iraq – Syria-Turkey	ATM SG/1	June 2014	Yes	Pending for Syria approval
2	RC-045	New	Saudi Arabia-Sudan	ATM SG/1	June 2014	Yes	Moved to ANP
3	RC-055	L315	Egypt-Saudi Arabia	ATM SG/1	June 2014	Yes	Saudi proposed SOBEL-DEDLI
4	RC-056	New	Egypt	ATM SG/1	June 2014	Yes	
5	RC-070	New	Egypt-Libya	ATM SG/1	June 2014	Yes	Moved to ANP
6	RC-082	New	Jordan-Saudi Arabia	ATM SG/1	June 2014	Yes	Route amended and moved to ANP
7	RC-083	New	Egypt-Libya-Saudi Arabia	ATM SG/1	June 2014	Yes	Route amended and moved to ANP
8	Eurocontrol Proposal 1	New	Egypt	ATM SG/1	June 2014	New	
9	UKMUG-SIDAD	New	Bahrain-Iraq-Kuwait	ATM SG/1	June 2014	New	RNAV 1 Routes
10	SIDNA-ASLAN	New	Bahrain-Iraq-Kuwait	ATM SG/1	June 2014	New	RNAV 1 Routes

Table explanation

a) TPR used as reference for the proposed Top 10 routes to be considered for implementation, numbers do not reflect the level of priority.
b) Source of the proposed routes.
c) Affected ATS Routes by the implementation of the new proposed routes.
d) States Concerned with the implementation.
e) The Group, Sub-Group or Task Force that had reviewed and updated the status of implementation of these top 10 routes.
f) Date of last status update.
g) Indicates if the status is changed or Not.
h) Remarks

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MID/RC-035 (TPR 1)	ATS Route Name: UL602	Entry-Exit: TUMAK (OB-OM) – KUKSI (OS-LT) MAKOL (LT) END	Inter-Rgional Cross Reference if any		Users Priority	URGENT	Originator of Proposal	Iraq
							Date of Proposal	RDGE/11 (Oct 2009)
Route Description		**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**		**Action Taken / Required**	**Deadline for each Action**
GEPAP 334906N 0422851E **ELEXI** 344130N 0410900E **DRZ** 351724N 0401124E **GAZ** 365701N 0372824E **SULAK** 375439N 0361712E		Iraq Syria Turkey		Entire route Westbound	Suspended in the Damascus FIR GEPAP (OR) to SULSAK (LT) not implemented		Syria requested additional time to examine the communication requirements by concerned FIR's. Once the communication issues are resolved it is expected that the ATS route will be implemented. Iraq has no objection	Conditional on Communication Pending acceptance by Syria, based on the status of communication infrastructure
Flight Level Band: FL240-FL460								
Potential City Pairs:								
Conclusions/Remarks							**Last updated**	ATM SG/1 June 2014

MID/RC-035 - (TPR 1)

MID/RC-045 (TPR 2)	ATS Route Name: New Route	Entry-Exit: PSD- KITAP	Inter-Regional Cross Reference if any		Users Priority		Originator of Proposal	IATA
							Date of Proposal	ARN TF/2

Route Description		States Concerned	Expected Impl. date	Implementation Status	ANP Status	Action Taken / Required	Deadline for each Action
Port Sudan (PSD) BOGUM Al BAHA (BHA) KITAP		Saudi Arabia, Sudan		Not implemented	Moved to ANP August 2014	Sudan has no objection from Port Sudan to SALWA (CDR) KSA suggest Port Sudan BHA-KITAP (Normal route) will avoid CDR KSA needs more time for studying.	
Flight Level Band:							
Potential City Pairs: DGAA, DNMM, HSSS, OEJN, SBGR to OBBI, OMAA, OMDB, OTBD (Central and Eastern Arabian Peninsula to Sudan, West Africa, South America)							

Conclusions/Remarks	Saves 58 miles and 3196 Kg of CO_2 to recalculate		Last updated	ATM SG/1 June 2014
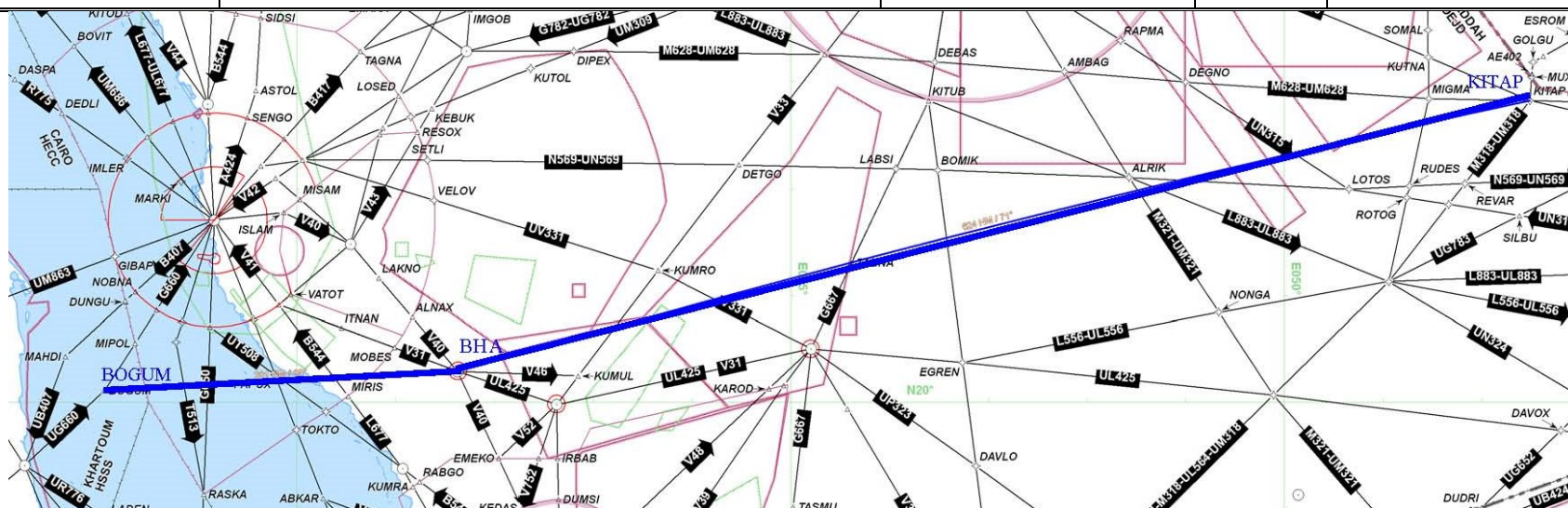
MID/RC-045 - (TPR 2)

MID/RC-055 (TPR 3)	ATS Route Name: New Route L315		Entry-Exit: HEMA-CVO	Inter-Regional Cross Reference if any		Users Priority		Originator of Proposal	IATA
								Date of Proposal	ARN TF/2

Route Description MAK-CVO		States Concerned	Expected Impl. date	Implementation Status	ANP Status	Action Taken / Required	Deadline for each Action
GIBAL HGD CVO		Egypt Saudi Arabia		Implemented with opposite direction CVO-HGD Eastbound GIBAL-HGD Westbound	Already in ANP	Saudi Arabia proposed L315 westbound and new Segment HDG or SOBEL-DEDLI for eastbound. This requires that CVO-HGD to be bi-directional. Pending Egypt approval	
Flight Level Band: Upper							
Potential City Pairs: North-western Red Sea to HECA and Europe							

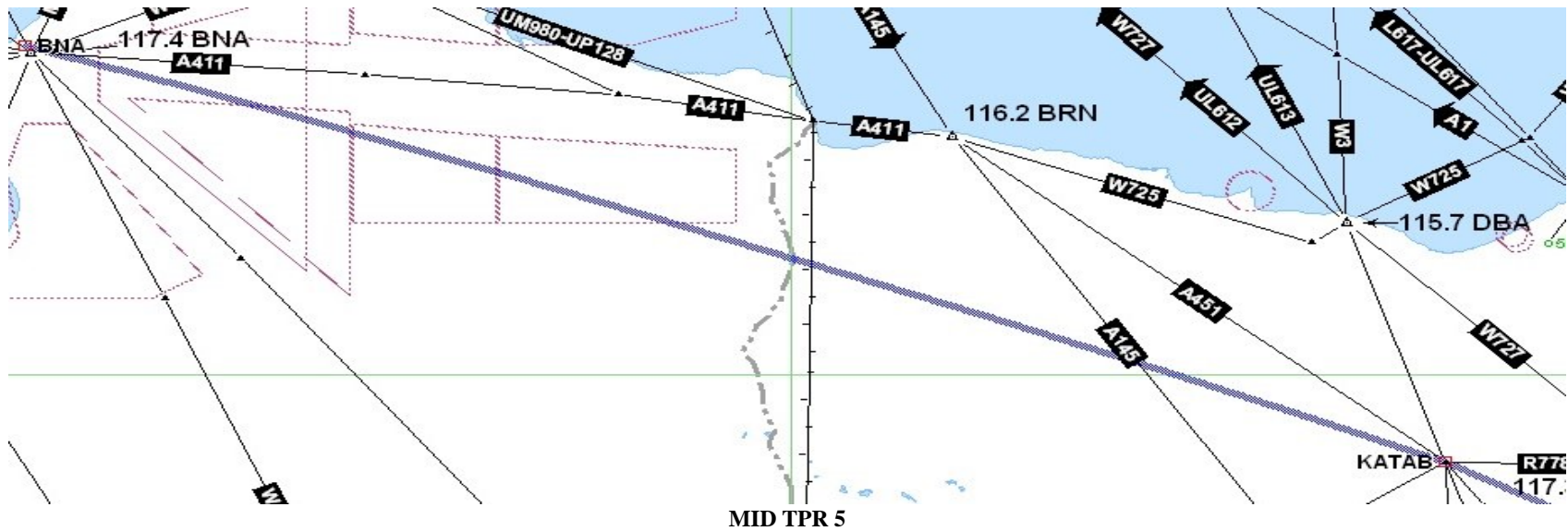| Conclusions/Remarks	Saves 9 miles		Last updated	ATM SG/1 June 2014

MID/RC-056 (TPR 4)	ATS Route Name: New Route	Entry-Exit: HEMA-SHM	Inter-Regional Cross Reference if any		Users Priority		Originator of Proposal	IATA
							Date of Proposal	ARN TF/2

Route Description HEMA-SHM		States Concerned	Expected Impl. date	Implementation Status	ANP Status	Action Taken / Required	Deadline for each Action
		Egypt		No progress reported		IATA to provide further details	
Flight Level Band: Upper						Tied with L315 await further discussions from Egypt.	
Potential City Pairs: HESH, Eastern Mediterranean, Europe to Western Red Sea Coast							

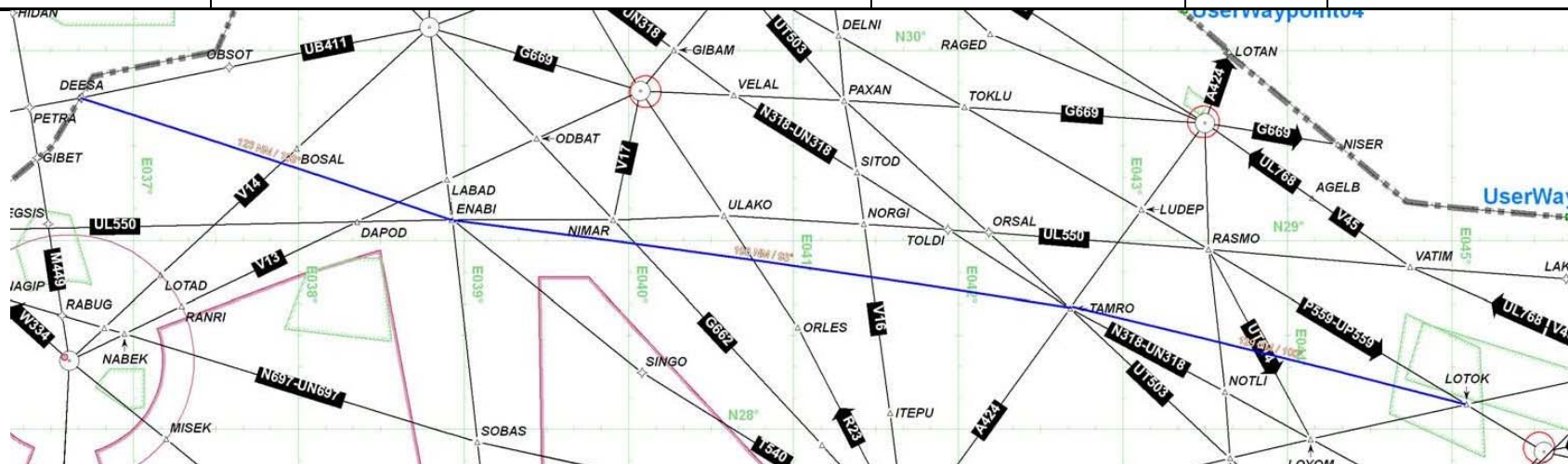| **Conclusions/Remarks**	Saves 17 miles		**Last updated**	ATM SG/1 June 2014

MID/RC-056- (TPR 4)

MID/RC-070 (TPR 5)	ATS Route Name: New Route		Entry-Exit: BNA-KATAB-SEMRU	Inter-Regional Cross Reference if any			Users Priority	High	Originator of Proposal	IATA
									Date of Proposal	ARN TF/1
Route Description			States Concerned	Expected Impl. date	Implementation Status		ANP Status		Action Taken/Required	Deadline for each Action
BNA (N32 07.5 E020 15.2) – KATAB (N29 25.0 E029 05.1)			Egypt Libya		New ATS route.				Differed for the future	
Flight Level Band: FL290 – FL410							Moved to ANP		<mark>Implement if possible</mark> <mark>Priority Routes</mark>	
Potential City Pairs: CMN/ALG/TUN/TIP-DOH										
									Requires further coordination with concerned States Egypt and Libya to implement the route	
Conclusions/Remarks	This AWY would save considerable track miles BNA – KATAB – SEMRU Libya FIR to Egypt FIR								**Last updated**	ATM SG/1 June 2014

MID TPR 5

MID/RC-082 (TPR 6)	ATS Route Name: New Route UQ597 Eastbound	Entry-Exit: DANAD - METSA – ASH – ULOVO	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA iFLEX Proposal
							Date of Proposal	17 May 2011
Route Description			States Concerned	Expected Impl. date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action
DEESA ENABI TAMRO LOTOK			Jordan Saudi Arabia			Moved to ANP	Connecting to UP559. Implement if possible Priority Routes Saudi Arabia to implement the route	TBD
Flight Level Band:								
Potential City Pairs: Dakar FIR, Algiers FIR, Tripoli FIR, Cairo FIR, Jeddah FIR								
Conclusions/Remarks	**Proposals agreed to by some State during the iFLEX workshop Dubai**						**Last updated**	ATM/AIM/SAR SG/13 SEP 2013

MID TPR 6

MID/RC-083 (TPR 7)	ATS Route Name: New Route UQ598 Westbound	Entry-Exit: DITAR – NABED – PASAM – HIL - ANTER - KUTEM	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	IATA iFLEX Proposal
							Date of Proposal	17 May 2011

Route Description		States Concerned	Expected Impl. date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action
HIL PASAM HGD	Egypt Saudi Arabia				Moved to ANP	Implement if possible Priority Routes Important Segment HGD-PASAM It's a west bound direction (FUA) N697 - HIL-PASAM-HGD -V608 RC 083 amended to include segment AST-DITAR only Concerned States to implement the route	TBD
Flight Level Band:							
Potential City Pairs:							

Conclusions/Remarks			Last updated	ATM SG/1 June 2014

MID (TPR 7)

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Eurocontrol proposals

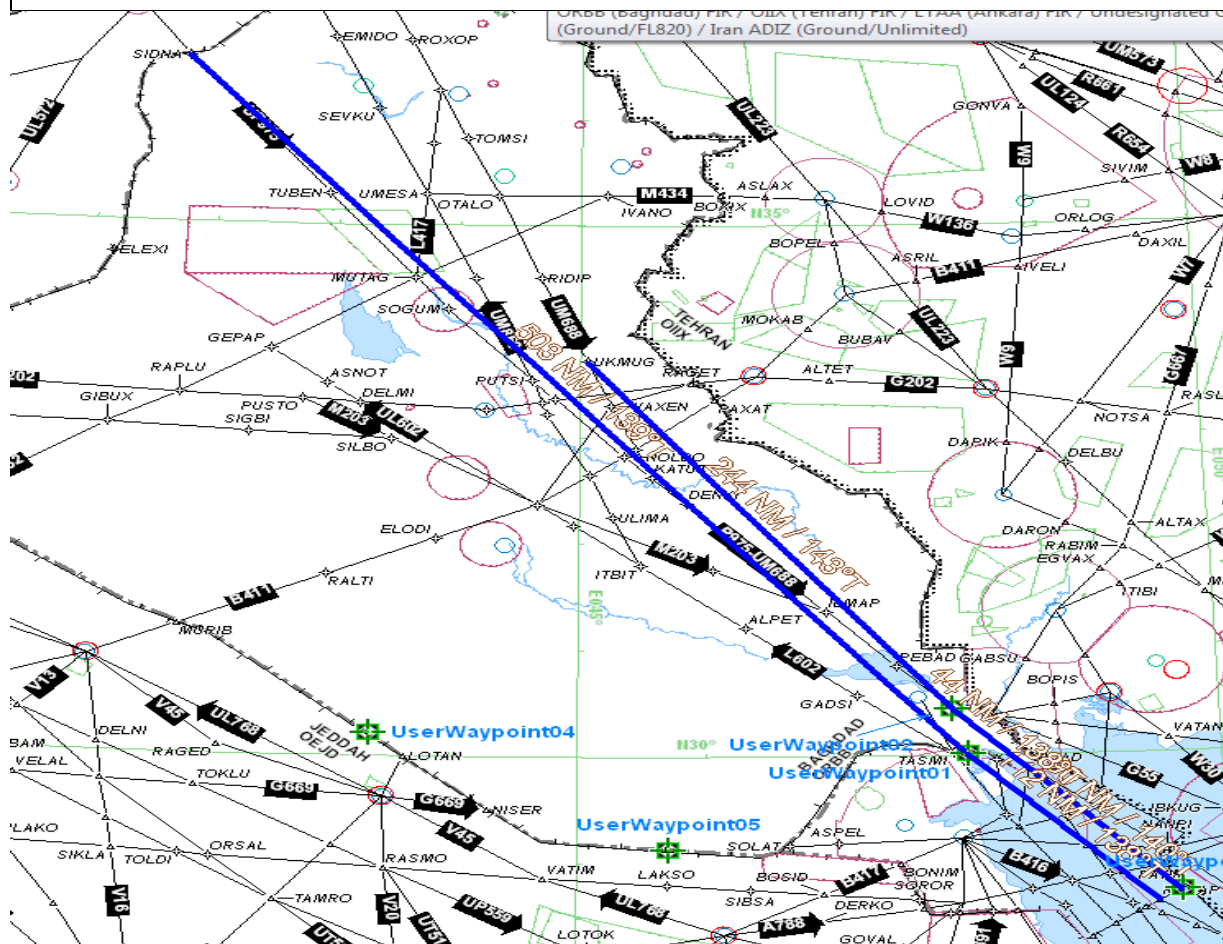| Reference	Objective and Proposal	State(s) concerned
TPR 8	_Objective:_ To further improve ATS route network within Cairo FIR.	EGY
		Originator
	To implement bi-directional ATS route **TBA** - **AAAAA** - **KITOT**.	EUROCONTROL
Notes:		
1. _AAAAA - crossing point between new TBA - KITOT and existing ATS route W733 allowing connection to/from METSA._		
2. _Shorter by 9.2NM option compare to existing TBA - NWB - KITOT._		
3. _Shorter by 28.6NM option compare to existing TBA - NWB - METSA._		

(TPR 8)

Reference	Objective and Proposal	State(s) concerned
TPR 9	_Objective:_ *To further improve ATS route network between Baghdad and Kuwait FIRs.*	Bahrain-Iraq-Kuwait
	To implement ATS route **UKMUG-SIDAD- New Point East of RABAP then join the ATS Route network within Bahrain.**	**Originator** ATM/AIM/SAR SG13 Oct 2013

Notes:
1. *RNAV 1 Routes, target date of implementation second quarter of 2014.*

Reference	Objective and Proposal	State(s) concerned
TPR 10	_Objective:_ *To further improve ATS route network between Baghdad and Kuwait FIRs.*	Bahrain-Iraq-Kuwait
	To implement ATS route **SIDNA-New point West of ASLAN-RABAP**.	**Originator** ATM/AIM/SAR SG13 Oct 2013

Notes:
2. *RNAV 1 Routes, target date of implementation second quarter of 2014.*

TPR 9 and 10

- END -