INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE FIRST MEETING OF THE MIDANPIRG ATM SUB-GROUP

ATM SG/1

(Cairo, Egypt, 9 – 12 June 2014)

The views expressed in this Report should be taken as those of the MID Region AIS Database Study 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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PART I - HISTORY OF THE MEETING

1. PLACE AND DURATION

1.1 The First Meeting of the MIDANPIRG ATM Sub-Group (ATM SG/1) was successfully held at the Meeting Room of the ICAO Middle East Regional Office in Cairo, Egypt, from 9 to 12 June 2014.

2. OPENING

2.1 Mr. Mohamed Smaoui, ICAO MID Regional Office Deputy Regional Director welcomed the participants to Cairo and wished them a successful and fruitful meeting. He highlighted that after the ATM/AIM/SAR SG/13 meeting, MIDANPIRG/14 endorsed the new Organizational Structure with the split of the ATM/AIM/SAR SG into 2 Sub Groups: the ATM SG and the AIM SG. He underlined that the ATM SG with its new TOR should continue the work of the ATM/AIM/SAR SG for the issues related to ATM and SAR.

2.2 Mr. Smaoui provided the meeting with an overview of the subjects that will be addressed during the meeting and pointed out the main expected outcomes of the meeting such as the amendments of the MID ANP parts related to ATM and SAR and the Draft MID Air Navigation Strategy parts related to ATM. In this respect, Mr. Smaoui highlighted that the MID Air Navigation Strategy will be further reviewed and updated by the ASBU Implementation Workshop (Dubai, UAE, 21-25 September 2014), organized jointly by IACO and IATA and hosted by Emirates Airlines, with a view to present the final version of the Strategy to the MSG/4 meeting for endorsement on behalf of MIDANPIRG. Accordingly, he encouraged all participants to actively participate in the mentioned Workshop.

2.3 In closing, Mr. Smaoui thanked all the participants for their presence and wished the meeting every success in its deliberations.

3. ATTENDANCE

3.1 The meeting was attended by a total of forty six (46) participants from ten (10) States (Bahrain, Egypt, Iran, Jordan, Kuwait, Qatar, Saudi Arabia, Sudan, UAE and Yemen) and four (4) Organizations/Industries (IATA, IFALPA, IFATCA and MIDRMA). The list of participants is at **Attachment A** to the Report.

4. OFFICERS AND SECRETARIAT

4.1 The meeting was chaired by Mr. Saleem Mohamed Hassan, Chief Air Traffic Management, Civil Aviation Affairs, Bahrain.

4.2 Mr. Elie El Khoury RO/ATM/SAR was the Secretary of the meeting supported by Mr. Mohamed Smaoui, ICAO MID Regional Office Deputy Regional Director.

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 and election of Chairpersons

Agenda Item 2: Follow-up on MIDANPIRG/14 Conclusions and Decisions relevant to ATM and SAR

Agenda Item 3: Global and Regional Developments related to ATM

Agenda Item 4: MID Region ATS Route Network

Agenda Item 5: Airspace Management Issues

Agenda Item 6: RVSM operations and Monitoring activities in the MID Region

Agenda Item 7: SAR Issues

Agenda Item 8: Review of Air Navigation deficiencies in the ATM and SAR fields

Agenda Item 9: Future Work Programme

Agenda Item 10: 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.

8. LIST OF CONCLUSIONS AND DECISIONS

DRAFT CONCLUSION 1/1:	*PROPOSAL FOR AMENDMENT TO THE MID BASIC ANP TABLE ATS 1*
DRAFT CONCLUSION 1/2:	*DRAFT MID REGION PBN IMPLEMENTATION PLAN*
DRAFT CONCLUSION 1/3:	*MID REGION HIGH LEVEL AIRSPACE CONCEPT*
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PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA AND ELECTION OF CHAIRPERSONS

1.1 The meeting reviewed and adopted the Provisional Agenda as at Para 6 of the History of the Meeting.

1.2 In accordance with the MIDANPIRG Procedural Handbook, Seventh Edition – December 2013, Mr. Saleem Mohamed Hassan, Chief Air Traffic Management, Civil Aviation Affairs, Bahrain and Mr. Mahmoud Mohammed Ali, Research and Development Manager, National Air Navigation Services Company, Egypt, were unanimously elected as the Chairperson and Vice Chairperson of the ATM Sub-Group, respectively.

REPORT ON AGENDA ITEM 2: FOLLOW-UP ON MIDANPIRG/14 CONCLUSIONS AND DECISIONS RELEVANT TO THE ATM AND SAR FIELDS

2.1 The meeting noted the status of the MIDANPIRG/14 Conclusions and Decisions related to the ATM and SAR fields and the follow up actions taken by States, the Secretariat and other parties concerned as at **Appendix 2A**. The meeting agreed also to review the Conclusions and Decisions, which are still current, under the associated Agenda Items with a view to propose to MIDANPIRG/15 appropriate follow-up action.

REPORT ON AGENDA ITEM 3: GLOBAL AND REGIONAL DEVELOPMENTS RELATED TO ATM

3.1 The meeting recalled that the Fourth Edition of Global Air Navigation Plan (GANP) was endorsed by the ICAO 38th Assembly held in Montreal, Canada, from 24 September to 4 October 2013. It was highlighted that the 38th Assembly called upon States, Planning and Implementation Regional Groups (PIRGs), and the aviation industry to:

- utilize the guidance provided in the GANP for planning and implementation activities which establish priorities, targets and indicators consistent with globally-harmonized objectives, taking into account operational needs; and

- provide timely information to ICAO, and to each other, regarding the implementation status of the GANP, including the lessons learned from the implementation of its provisions.

3.2 The 38th Assembly urged States:

- to take into consideration the GANP guidelines as an efficient operational measure for environmental protection;

- that are developing new generation plans for their own air navigation modernization to coordinate with ICAO and align their plans so as to ensure global compatibility and harmonization; and

- to utilize the Flight Procedures Programme, where available, for PBN implementation.

3.3 The meeting recalled that, at global level, PBN is considered as the highest priority for air navigation, in addition to the Continuous Descent and Climb Operations (CDO and CCO) and Air Traffic Flow Management/Collaborative Decision-Making (ATFM/CDM).

3.4 The meeting noted that the Regional Performance Dashboards have been launched on the ICAO website. These Dashboards aim to provide a glance of both Safety and Air Navigation Capacity and efficiency strategic objectives, using a set of indicators and targets based on the regional implementation of the Global Aviation Safety Plan (GASP) and the Global Air Navigation Plan (GANP).

3.5 It was highlighted that the purpose of these Dashboards is to show targeted performance at the regional level and, initially, contain graphics and maps with a planned expansion to include the Aviation System Block upgrades (ASBU) Block 0 Modules.

3.6 The meeting reviewed the Metrics and Indicators included in the Air Navigation Dashboard (V 1.0). It was highlighted that the Metrics and Indicators will be further improved, in particular for the ATFM, the indicator will be changed from the “Number of States where ATFM exists” to “Number of FIRs where all ACCs utilize ATFM measures”.

3.7 The meeting was further apprised of other ICAO Regions activities related to ATM such as the implementation of ATFM and AIDC/OLDI and the application of the User preferred Routes and Free Route Airspace Concepts.

3.8 The meeting was apprised of the latest proposed Amendments related to the PANS-ATM (Doc 4444) and PANS-OPS (Doc 8168) which will be applicable on 13 November 2014. Accordingly, the meeting encouraged States to take into consideration the latest amendments when developing/updating their national plans.

3.9 The meeting was apprised of the progress achieved in the development of the new Regional Air Navigation Plan Template and the Action Plan for the development of the eANP.

3.10 The meeting noted that the Secretariat WG agreed that the ANP data related to the air navigation facilities and services could be classified as: stable, dynamic or flexible. In this regard, it was agreed that the new ANP should be composed of three volumes:

a) Volume I should contain stable plan elements whose amendment necessitated approval by the Council and these elements be related to:

- assignment of responsibilities;
- mandatory requirements subject to regional agreement; and/or
- additional requirements specific to the region which are not covered in SARPs.

Note: The following is a non-exhaustive list of such elements:

Flight Information Regions (FIR) boundaries (Table and Charts); Search and Rescue Regions (SRR) boundaries (Table and Charts); Volcanic Ash Advisory Centres (VAAC); Tropical Cyclone Advisory Centres (TCAC); Volcano Observatories (VO).

b) Volume II should contain dynamic plan elements whose amendment did not necessitate approval by the Council and these elements be related to:

- assignment of responsibilities;
- mandatory requirements subject to regional agreement; and/or
- additional requirements specific to the region which are not covered in SARPs.

Note: The following is a non-exhaustive list of such elements:

Major traffic flows; ATS route network; Meteorological Watch Offices (MWO); Secondary Surveillance Radar (SSR) codes; Five-letter name-codes; VOLMET Broadcasts.

c) Volume III should contain dynamic/flexible plan elements providing implementation planning guidance for air navigation systems and their modernization taking into consideration emerging programmes such as the ICAO Aviation System Block Upgrades (ASBUs) and associated technology roadmaps described in the *Global Air Navigation Plan* (GANP) (Doc 9750). The ANP Volume III would also include appropriate additional guidance, particularly with regard to implementation, to complement the material contained in the ANP Volumes I and II. The amendment of these elements does not require approval by the Council.

3.11 The meeting noted that the endorsement of the ANP Template, which includes the new procedure of amendment of the eANP, is the most important milestone in the process. It is be noted that the Air Navigation Commision reviewed and supported the ANP Template package, which will be presented to the Council for approval during the week of 16-20 June 2014. The approval of the eANP of each Region, based on the approved ANP Template, would be accomplished in accordance with the procedure for amendment.

3.12 The meeting was apprised of the outcome of the Airbus, ProSky ATM modernization Symposium, held in Abu Dhabi, UAE, 8-10 April 2014.

REPORT ON AGENDA ITEM 4: MID REGION ATS ROUTE NETWORK

Review of the MID Region ATS Route Network

4.1. The meeting emphasized that effective interregional coordination and collaboration between all stakeholders is essential in order to achieve seamless Air Traffic Management and more optimum routes through the airspace.

4.2. The meeting reiterated that the implementation of Performance Based Navigation (PBN) routes can have significant efficiency benefits on flight operations in the En-route environment.

4.3. The meeting noted with concern 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).

4.4. In connection with the above, the 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 Sates to take necessary measures in order to resolve this pending issue.

4.5. The meeting noted with appreciation the implementation of UL308, UT100 and UT300 in Jeddah, which improved significantly the traffic flows between Saudi Arabia, Qatar, Oman, UAE and Yemen. In this regard, the meeting urged Saudi Arabia to coordinate with the ICAO MID Regional Office the assignment of appropriate route designators to replace UT300.

4.6. The meeting recognized that Bahrain was the first State in the Region that completed, on 9 January 2014, the implementation of a full RNAV 1 ATS route structure in Bahrain FIR. 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.

4.7. Based on the above, the meeting encouraged States to report the environmental benefits accrued from the implementation of the operational improvements to the Second Meeting of the ATM Performance Measurements Task Force (APM TF/2), Cairo, 10-12 November 2014, in order to be included in the Second MID Air Navigation Environmental Report.

4.8. The meeting noted with concern the closure of UP975 between Ankara and Baghdad FIRs which affected dramatically the efficiency of the traffic flow between the two FIRs. The meeting agreed that IATA and ICAO follow–up this issue with the concerned States.

4.9. The meeting noted that Bahrain and Iraq are ready for the implementation of the proposed RNAV 1 routes between Bahrain and Iraq through Kuwait FIR (Top Ten Routes, TPR 9 and TPR 10 refer). Kuwait was expected to start RNAV 1 implementation in June 2014; accordingly, the meeting agreed that Kuwait provide feedback/action plan for implementation of the proposed routes to the ICAO MID Regional Office by **30 July 2014**.

4.10. The 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. The meeting recalled that the closure of G202 was included in the Deficiencies List of Syria, accordingly, the meeting agreed to include it also in the Deficiencies List of Iran and Iraq.

4.11. The meeting was apprised of the Users' concern related to flight planned route from Jeddah to Dubai via Bahrain. The meeting noted that Qatar has no objection if the traffic is routed via SALWA. Accordingly, the meeting agreed that concerned States and IATA should coordinate together to explore alternative solutions.

4.12. The meeting noted with concern that no progress has been reported related to the implementation of the proposed routes between Egypt - Malta, Egypt - Cyprus, Egypt - Jordan, Egypt - Saudi Arbia, Iran - Azerbeijan, Iraq - Kuwait, and Iraq - Saudi Arabia. Accordingly, the meeting urged concerned States to take necessary measures to implement the agreed proposed routes aiming to improve the traffic flow in the MID Region and to provide the ICAO MID Regional Office with an update on the actions undertaken by **30 November 2014,** in order to be presented to the Air Navigation Systems Implementation Group (ANSIG) meeting planned to be held in the First Quarter of 2015.

4.13. In accordance with MIDANPIRG/14 Conclusion 14/11, the meeting reviewed and updated the top ten routes as at **Appendix 4A** and agreed to include TPR 2, TPR5, TPR 6, TPR 7, TPR 9 and TPR 10 in the MID Basic ANP Table ATS 1- ATS Route Network.

4.14. The meeting reviewed and updated the MID Basic ANP Table ATS 1. Accordingly, the meeting agreed that the ICAO MID Regional Office process a Proposal for Amendment of the MID Basic ANP, consolidating the outcome of the ATM SG/1 meeting.

4.15. Based on the above, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 1/1: PROPOSAL FOR AMENDMENT TO THE MID BASIC ANP TABLE ATS 1

That, the ICAO MID Regional Office issue a Proposal for Amendment to the MID Basic ANP (Doc 9708) in order to update the Table ATS 1, consolidating the outcome of the ATM SG/1 meeting.

4.16. The meeting reviewed and updated the information contained in the MID ATS Route Catalogue as at **Appendix 4B**.

4.17. It was highlighted that the Catalogue was created to include route proposals that are not included in the MID Basic ANP, Table ATS 1-ATS Route Network, requiring further consideration and coordination for their implementation. The process of updating the Catalogue is becoming more and more complicated and cumbersome due to the significant increase of Route proposals. In this regard, the meeting agreed that the process of maintaining the Catalogue up-to-date should be reviewed/reconsidered and the Catalogue should be a dynamic document/database,

reflecting the inputs from all concerned in a timely manner. Accordingly, the meeting agreed that as a first step, the Catalogue should be posted on the ICAO MID Regional Office website and be managed by the ATM SG.

4.18. The meeting noted that Egypt had been working on the restructuring of the ATS route network within Cairo FIR. In this regard, Egypt was invited to take into consideration the proposed routes contained in the routes Catalogue in their planning process.

Contingency Planning

4.19. The meeting recalled that MIDANPIRG/14 endorsed the MID Region ATM Contingency Plan, which includes the MID Region Volcanic Ash Contingency Plan. It was highlighted that the plan is availbale on the ICAO MID Regional Office restricted website (under eDocuments). The meeting noted that no update has been received regarding the status of contingency agreements and contingency focal points list.

4.20. In connection with the above, the meeting urged States to provide the ICAO MID Regional Office with their updated national Contingency Plans by **30 July 2014**.

REPORT ON AGENDA ITEM 5: AIRSPACE MANAGEMENT ISSUES

MID Region PBN Implementation Plan

5.1 The meeting reviewed and updated the parts related to En-route of the Draft MID Region PBN Implementation Plan as at **Appendix 5A**. Accordingly, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 1/2: DRAFT MID REGION PBN IMPLEMENTATION PLAN

*That, States be urged to provide the ICAO MID Regional Office with their inputs and comments related to the Draft MID Region PBN Implementation Plan at **Appendix 5A**, by **30 July 2014** in order to consolidate the final version of the Plan for endorsement by MSG/4 meeting.*

Air Traffic Flow Management

5.1. The meeting recognized that Air Traffic Flow Management (ATFM) is used to manage the flow of traffic in a way that minimizes delays and maximizes the use of the entire airspace. ATFM can regulate traffic flows involving departure slots, smooth flows and manage rates of entry into airspace along traffic axes, manage arrival time at waypoints or Flight Information Region (FIR)/sector boundaries and re-route traffic to avoid saturated areas. ATFM may also be used to address system disruptions including a crisis caused by human or natural phenomena.

5.2. The meeting noted that ATFM/CDM has been considered as priority for implementation at the global level and has been included in the regional performance monitoring Dashboards. It was highlighted that ATFM and its applications should not be restricted to one State or FIR because of their far-reaching effects on the flow of traffic elsewhere. The *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444) recognizes this important fact, stating that ATFM should be implemented on the basis of a Regional Air Navigation Agreement or, when appropriate, a Multilateral Agreement.

5.3. IATA emphasized that all initiatives to improve traffic flows should be exhausted before implementation of a regional ATFM system in the MID Region.

5.4. In accordance with the Questionnaire circulated to States on 7 March 2014, related to the application of ATFM in the MID Region, the majority of the MID States indicated willingness to participate in a regional ATFM service/system.

5.5. The meeting was informed about the sub-regional activities/initiatives related to Integrated Flight Plan Processing System (IFPS)/ATFM lead by Bahrain and Saudi Arabia. Accordingly, the meeting invited Bahrain and Saudi Arabia to present working papers related to IFPS and ATFM, respectively, to the MSG/4 meeting in November 2014.

AIDC/OLDI

5.6. The meeting was apprised of the outcome of the AIDC/OLDI Seminar, Cairo, Egypt, 3-5 March 2014. The Summary of Discussions of the Seminar is at **Appendix 5B**.

5.7. The meeting urged States that have not yet done so to provide their AIDC/OLDI Focal Points to the ICAO MID Regional Office, by **30 June 2014**, in order to coordinate with them the issues related to AIDC/OLDI implementation.

5.8. Taking into consideration the need for an AIDC/OLDI Bilateral Agreement Template to be used in the MID Region, the meeting agreed that Appendix C (1), "Exchange of Flight Data, with automatic data exchange", to the ACCs Letter of Agreement (LoA) Template at **Appendix 5C**, be considered as the initial draft of the AIDC/OLDI Bilateral Agreement Template. Accordingly, the meeting agreed that the Secretariat in coordination with the AIDC/OLDI focal points finalize a Draft Version of the Template, to be further reviewed by the CNS SG/6 meeting in September and thereafter presented to MSG/4 meeting in November 2014 for endorsement.

5.9. In the same vein, the meeting agreed that the Secretariat in coordination with the AIDC/OLDI focal points develop the MID AIDC/OLDI Implementation Strategy to be reviewed by the CNS SG/6 meeting in September and thereafter presented to the MSG/4 meeting in November 2014 for endorsement.

5.10. The meeting encouraged States to provide the ICAO MID Regional Office with their updates/progress reports on AIDC/OLDI implementation by **15 August 2014**.

MID Region ATM Enhancement Programme (MAEP)

5.11. The meeting was apprised of the outcome of the MAEP Special Coordination Meeting (MAEP SCM) held at the ICAO MID Regional Office, Cairo, Egypt, 18-20 February 2014.

5.12. The meeting noted that the First Meeting of the MAEP Board will be held at the ICAO MID Regional Office, Cairo, Egypt, 23-25 June 2014. Accordingly, the meeting encouraged States to actively participate in the MAEP Board/1 meeting.

5.13. The meeting noted that the ICAO MID Regional Office issued State Letter Ref: AN 6/31 – 14/142 dated 21 May 2014, requesting States and International/Regional Organizations to provide a Focal Point for MAEP to coordinate with him/her the preparation for the MAEP Board/1 meeting. Accordingly, the meeting urged States to provide the ICAO MID Regional Office with their MAEP Focal Point, if not yet done so.

MID Region High Level Airspace Concept

5.14. The meeting emphasized that an airspace concept provides the outline and intended framework of operations within an airspace. Airspace concepts are developed to satisfy explicit strategic objectives such as improved safety, increased air traffic capacity and mitigation of environmental impact, etc. Airspace concepts can include details of the practical organization of the airspace and its users based on particular CNS/ATM assumptions, e.g. ATS route structure, separation minima, route spacing and obstacle clearance.

5.15. The meeting recognized that the objective of the High Level Airspace Concept is to consolidate the ATM operational requirements agreed on by MIDANPIRG, in order to provide a generic set of characteristics to be applied by States, which would support the harmonization of the ATM operations in the MID Region. Accordingly, the meeting agreed to the initial **MID Region High Level Airspace Concept** as follows:

a) The use of Reduced Vertical Separation Minima (RVSM) between FLs 290 and 410.
b) To the most extent possible implementation of parallel ATS route network, based on RNAV 5 or RNAV 1, across the Region.
c) Implementation of RNAV 5 area in the level band FL160 - FL460 (inclusive).
d) A system of linked routes based mainly on RNAV connected to RNAV or Conventional SIDs and STARs starting at the nominal TMA boundary.
e) Route spacing used for RNAV 5 routes should not be less than 16.5 NM for unidirectional and 18 NM for bi-direction tracks.
f) Route spacing used for RNAV 1 routes should not be less than 7 NM providing that required CNS infrastructure is available.
g) Implementation of 20 NM Reduced radar longitudinal separation, which could be further reduced to 10 NM where appropriate.
h) Implementation of the "Flexible Use of Airspace" concept.
i) Implementation of ASBU Modules in accordance with the Air Navigation Strategy.
j) Implementation of AIDC/OLDI between all ACCs.
k) Implementation of Continuous Climb Operations (CCO) and Continuous Descent Operations CDO, where appropriate.
l) Consider the implementation of Bilateral, Sub-regional or regional ATFM services.

5.16. Based on the above, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 1/3: MID REGION HIGH LEVEL AIRSPACE CONCEPT

*That, States be urged to provide the ICAO MID Regional Office with their inputs and comments related to the Draft MID Region High Level Airspace Concept by **30 July 2014**, in order to consolidate the final version of the High Level Airspace Concept for endorsement by MSG/4 meeting.*

Letter of Agreement Template to be used by ATS Units in the MID Region

5.17. The meeting received with appreciation a proposal by UAE related to the adaption of a standard Template for the LoA between adjacent ATS units, based on the EUROCONTROL Format. The meeting reviewed the LoA Template at **Appendix 5C** and agreed that it needs further improvements such as the addition of an Appendix related to the Search and Rescue (SAR) bilateral arrangement/agreement and the amendment of Appendix (C1) related to AIDC/OLDI.

5.18. Based on the above, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 1/4: LETTER OF AGREEMENT TEMPLATE TO BE USED BY ATS UNITS IN THE MID REGION

*That, States be urged to provide the ICAO MID Regional Office with their inputs and comments related to the Letter of Agreement Template to be used by ATS Units in the MID Region by **30 July 2014**, in order to consolidate the final version of the Template for endorsement by the MSG/4 meeting.*

Civil/Military Cooperation and Flexible Use of Airspace

5.19. The meeting noted that ICAO 38th General Assembly through Resolution A38-12 (Appendix I) **at Appendix 5D** emphasized that the airspace is a resource common to both Civil and Military Aviation.

5.20. The 38th Assembly recalled that the ICAO Global ATM Operational Concept States that all airspace should be a usable resource, any restriction on the use of any particular volume of airspace should be considered transitory, and all airspace should be managed flexibly.

5.21. The meeting recalled that MIDANPIRG/14 through Conclusions 14/12 and 14/13 urged States to take necessary measures to foster the implementation of Civil/Military Cooperation and to implement the Flexible Use of Airspace (FUA) concept through strategic Civil/Military Coordination and dynamic interaction, in order to open up segregated airspace when it is not being used for its originally-intended purpose and allow for better airspace management and access for all users.

5.22. The meeting noted with concern that only Bahrain, Egypt, Jordan, Qatar and Sudan replied to the ICAO MID Regional Office State letter Ref: AN 6/13-14/105 dated 16 April 2014, related to the actions undertaken for the implementation of the Civil/Military Cooperation and FUA.

5.23. Based on the above, the meeting urged States to take necessary measures to implement the provisions of the Resolution A38-12 (Appendix I) and MIDANPIRG/14 Conclusions 14/12 and 14/13 and provide the ICAO MID Regional Office with an update on the action(s) undertaken before **30 August 2014**.

5.24. The meeting re-iterated MIDANPIRG/14 Conclusion 14/14 related to the Civil/Military Go-Team. The meeting agreed that the use of "Support Team" is more appropriate in order to avoid any interference with the Go-Teams established at the global level. Accordingly, the meeting agreed to the following Draft Conclusion that replaces and supersedes MIDANPIRG/14 Conclusion 14/14:

DRAFT CONCLUSION 1/5: MID CIVIL/MILITARY SUPPORT TEAM

That,

a) a MID Civil/Military Support Team be established to expedite the implementation of the Flexible Use of Airspace (FUA) Concept in the MID Region; and

b) *ICAO and IATA to develop the scope, Tasks, Pre-Visit arrangements, on-site activities of the Civil/Military Support Team, which shall be presented to the next ANSIG meeting for review and endorsement.*

5.25. The meeting recognized the need for an awareness campaign to promote the implementation of the FUA Concept in the MID Region. Accordingly, the meeting encouraged States to request the ICAO MID Regional Office to arrange for a Civil/Military Support Team visit, whose programme would include a Workshop on Civil/Military Cooperation and FUA.

5.26. The meeting commended Jordan, Sudan and UAE for sharing their experience related to the Civil/Military Cooperation.

5.27. In the same vein, the meeting noted with appreciation the presence of Military representatives among Egypt and Sudan Delegations. In this regard, in accordance with MIDANPIRG recommendations, the meeting urged States to take necessary measures to coordinate with the Military Authorities in a timely manner their participation to the MIDANPIRG and ATM Sub-group meetings.

Draft MID Air Navigation Strategy Parts Related to ATM

5.28. The meeting reviewed and updated the Draft MID Air Navigation Strategy Parts related to ATM, in particular the Aviation System Block Upgrades (ASBU) Block 0 Modules, FICE, FRTO and TBO Monitoring Tables as at **Appendix 5E.**

5.2 In accordance with the ICAO MID Regional Office State Letter Ref.: AN 1/7–14/123 dated 5 May 2014, the meeting urged States to implement the provisions of MIDANPIRG/14 Conclusions 14/4 and 14/6 and:

a) take all necessary measures to develop/update their National Air Navigation Performance Framework and provide the ICAO MID Regional Office a copy, preferably not later than **30 June 2014;** and

b) provide the relevant data to the ICAO MID Regional Office on annual basis.

5.29. The meeting noted that the MID Air Navigation Strategy will be further reviewed and updated by the ASBU Implementation Workshop (Dubai, UAE, 21-25 September 2014) with a view to present the final version of the Strategy to the MSG/4 meeting for endorsement on behalf of MIDANPIRG. Accordingly, the meeting encouraged States to actively participate in the ASBU Implementation Workshop.

MID eANP Parts related to ATM

5.30. The meeting recalled that MIDANPIRG/14, through Decision 14/24, agreed that the development of the MID eANP based on the Council-approved ANP Template, be included in the work programme of the different MIDANPIRG subsidiary bodies and the relevant Parts of the MID eANP be presented, as soon as available, to MSG/4 and/or MIDANPIRG/15 for endorsement.

5.31. Based on the above, the meeting reviewed and updated the MID eANP parts related to ATM as at **Appendix 5F** and agreed that States to provide their comments and inputs for the population of the different ATM Tables to the ICAO MID Regional Office by **30 August 2014**, for further review by the ANP WG/2 meeting in December 2014.

5.32. Based on the above, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 1/6: MID eANP PARTS RELATED TO ATM

*That, States be urged to provide the ICAO MID Regional Office with their inputs and comments for the population of the different ATM Tables by **30 August 2014**, for the presentation of a consolidated version of the MID eANP Parts related to ATM to the ANP WG/2 meeting.*

Callsigns Confusion

5.33. The meeting noted with appreciation the efforts and measures undertaken by UAE to mitigate the risk related to the Callsigns confusion.

5.34. It was highlighted that the AFTN Systems (INFPL) limited the Callsign to seven (7) alpha-numeric characters only, which does not support the use of extended Callsigns.

5.35. The meeting recalled that the Callsigns confusion had been also addressed by RASG-MID.

5.36. Accordingly, the meeting agreed that UAE presents a working paper on the subject to the CNS SG/6 in September 2014, and the outcome/recommendations to be presented to the RASG-MID/4 meeting.

REPORT ON AGENDA ITEM 6: RVSM OPERATIONS AND MONITORING ACTIVITIES IN THE MID REGION

6.1 The meeting was apprised of the outcome of the Thirteenth Meeting of the Middle East Regional Monitoring Agency Board (MIDRMA Board/13), held in Bahrain, from 9 to 12 March 2014.

6.2 The meeting noted that the ICAO MID Regional Office and the MIDRMA took necessary measures for the transfer of the membership of Libya and Sudan from the AFI RMA to the MIDRMA.

6.3 The meeting recalled that Qatar has not been included in the membership of the MIDRMA Board since its establishment, considering that the membership was agreed upon based on the list of FIRs where RVSM was implemented. Nevertheless, taking into account that in term of workload of the MIDRMA, the RVSM height monitoring activity (which is directly related to the volume of fleet) is considered one of the biggest tasks; the MIDRMA Board/13 meeting agreed to invite Qatar to join the MIDRMA considering the important number of Qatari registered aircraft. Accordingly, The ICAO MID Regional Office sent a State Letter on 17 April 2014 to Qatar inviting them to join the MIDRMA Board by the signature of the MIDRMA Memorandum of Agreement (MOA).

6.4 The MIDRMA Board/13 meeting noted that the MIDRMA MOA had never been updated since 27 February 2006 and that many clauses of the Agreement became outdated, in particular those clauses related to the MIDRMA Board membership and funding mechanism. Accordingly, the meeting endorsed a revised version of the MOA and agreed that this version of the MOA would replace and supersede the initial MOA upon its signature by the MIDRMA member States.

6.5 The meeting noted that the ICAO MID Regional Office circulated the revised MIDRMA MOA to all MID States through State Letter Ref: AN 6/5.10.15A – 14/110 dated 17 April 2014 for signature by the appropriate authority and to be sent back before **31 May 2014**. It was highlighted that only Sudan provided the signed MOA. Accordingly, the meeting urged the rest of States to sign the MOA and send it back to the ICAO MID Regional Office by **30 July 2014**.

Development of the MID RVSM Safety Monitoring Report (SMR) 2014

6.6 The meeting noted that in accordance with MIDANPIRG/14 Decision 14/34– *Scrutiny Group Work Programme*, the MIDRMA Board/13 meeting reviewed, analysed and validated the Large Height Deviation (LHD) Reports provided to the MIDRMA for the period 1 September 2013 to 8 March 2014.

6.7 The meeting noted with appreciation that the MIDRMA developed an online LHD reporting tool, to be used by States as the only mean for reporting LHDs.

6.8 In connection with the above, the meeting re-iterated the necessity for the development of a simplified LHD Template containing the minimum data necessary to trigger the process of reporting LHDs, with a view to facilitate the process of reporting of LHDs by the Air Traffic Controllers (ATCOs). In this regard, the meeting noted with appreciation that Bahrain implemented a simplified automated LHD procedure/tool through the ATC system. This procedure/tool allows the ATCOs to easily trigger the LHD reporting process (within less than 10

seconds) by sending the concerned current Flight Plan via AFTN with a short message describing the LHD case (i.e. NE XXX for No Estimate received from State X). Accordingly, the meeting encouraged States to implement a procedure within their ACCs to easily trigger the LHD reporting process and provide the ICAO MID Regional Office with an update on the action(s) undertaken.

6.9 The meeting recalled that in accordance with MIDANPIRG/14 Conclusion 14/38 States have been requested to send their FPL/Traffic data for the period **15 January–15 February 2014,** to the MIDRMA **by 30 April 2014**, for the development of the MID RVSM Safety Monitoring Report (SMR) 2014.

6.10 The meeting noted with concern that Egypt, Iraq and Libya did not provide the required FPL/Traffic data in due time to the MIDRMA, which resulted in their exclusion from the initial results of the MID RVSM SMR 2014.

6.11 The meeting reviewed the initial results of the MID RVSM SMR 2014 presented by the MIDRMA and noted that, according to the data and methods used, the key safety objectives as set out by MIDANPIRG, through Conclusion 12/16, continue to be met.

6.12 It was noted that the calculated Horizontal Overlap Frequency (HOF) from two radars may not be totally representative of the traffic patterns for the whole MID Region. In this respect, it was highlighted that the MIDRMA is coordinating with the other RMAs and ICAO in order to explore other methods to measure the HOF without the use of radar data (based only on the traffic data).

Height Keeping Monitoring Requirements

6.13 The meeting noted with concern that some States are still not fully complying with Annex 6 provisions and MIDRMA Minimum Monitoring Requirements related to height keeping performance monitoring.

6.14 The meeting recalled that MIDANPIRG/14 requested the MIDRMA to circulate the List of RVSM approved aircraft without known height-keeping monitoring results, to all MID States and other RMAs for appropriate action. The meeting noted that this is a global issue which needs to be addressed by the RMA Global coordination meetings. Accordingly, the meeting agreed that the consolidated Table of the MID States RVSM Aircraft Minimum Monitoring Requirements (MMR) be posted on the MIDRMA website and kept regularly up to date.

6.15 The meeting recalled that in accordance with the MID Region Height-Keeping Monitoring Strategy, for Medium and Long Term (2014 – 2020), the MIDRMA would continue to conduct GMU monitoring for identified operators' aircraft and the use of Height Monitoring Units (HMUs) as a means of conducting height-keeping monitoring; would be considered in due time.

6.16 The meeting noted with concern that some State aircraft were filing "W" in their flight plans while they were not RVSM approved.

6.17 The meeting noted with appreciation that UAE successfully implemented necessary measures for granting RVSM approvals to their State aircraft and similar process is being implemented in Qatar.

6.18 Based on the above, the meeting urged States to implement necessary measures for granting RVSM approvals to their State aircraft taking into consideration the successful processes implemented in Qatar and UAE.

6.19 It was highlighted that the MIDRMA had been facing difficulties with some States related to the update of the RVSM approvals list and height monitoring requirements. Accordingly, the MIDRMA Board/13 meeting agreed that States, in addition to the ATC focal point, nominate a focal point from their Airworthiness/Flight Operations Authority responsible for the RVSM Certifications in order to improve the coordination process between the MIDRMA and the States.

6.20 In connection with the above, the meeting noted that the ICAO MID Regional Office issued State Letter Ref: AN 6/5.10.15A – 14/107 dated 16 April 2014, requesting States to update their MIDRMA Board Member/Alternate and to assign an ATC focal point in addition to a focal point from the Airworthiness/Flight Operations Authority responsible for granting RVSM approvals, in order to enhance the coordination process between the MIDRMA and the States. It was noted that Bahrain, Egypt, Iraq, Jordan, Sudan and UAE replied.

6.21 Based on the above, the meeting urged those States to provide the ICAO MID Regional Office with their MIDRMA Board Member/Alternate and Focal Points by **30 July 2014**, if not yet done so.

6.22 The meeting recognized that the MIDRMA may not be able to comply with the increased demands for GMU monitoring, in a timely manner, with only one old GMU unit which might be subject to breakdown at any time

6.23 Taking into consideration the unsuccessful efforts that have been carried out to ease the conditions of the CSSI Sale and Services Agreement and the urgent need for GMU devices to be owned by the MIDRMA, the MIDRMA Board/13 meeting granted authorization for the MIDRMA to purchase two (2) Enhanced GMU devices from the CSSI Company with the imposed restrictions.

Training on RVSM Safety Assessment

6.24 The meeting recalled that in order to increase the awareness about the MIDRMA activities and RVSM safety assessment requirements, MIDANPIRG/14 requested the MIDRMA to include in its work programme regular missions to the Member States, during which briefings on the MIDRMA activities and RVSM safety assessment requirements be provided to concerned personnel. In the same vein, MIDANPIRG/14 agreed that such briefings could be provided in the MIDRMA premises in Bahrain.

6.25 In connection with the above, the meeting highly appreciated the training session on RVSM Safety Assessment organized during the course of the MIDRMA Board/13 meeting. The training session was supported by the MIDRMA Team, Mr. Andrew Louis, Technical Manager European RMA and Dr. Sameer Alam, PHD, Lecturer, University of New South Wales, Australian Defence Force Academy. In this regard, the meeting encouraged the MIDRMA to organize additional training sessions on RVSM Safety Assessment, as appropriate.

MIDRMA Manual

6.26 The meeting noted that MIDRMA Board/13 reviewed the MIDRMA Manual Version 1.1 and agreed that the Final Version of the Manual should reflect the outcome of the MIDRMA Board/13 meeting, in particular the issues related to the MIDRMA Board membership, revised

Memorandum of Agreement and funding mechanism, staffing, the Large Height Deviation Reporting Procedures, etc. Accordingly, the meeting agreed that the MIDRMA, in coordination with the ICAO MID Regional Office finalize the version 1.1 of the MIDRMA Manual and post it on the MIDRMA website: www.midrma.com (restricted page) by **30 August 2014.**

List of Air Navigation Deficiencies related to MIDRMA

6.27 The meeting noted with appreciation that Kuwait, Saudi Arabia and Yemen had been reporting satisfactory LHDs to the MIDRMA. Accordingly, the meeting agreed that these three States removed from the MIDANPIRG list of air navigation deficiencies.

6.28 The meeting agreed that Libya be included in the list of MIDANPIRG air navigation deficiencies for non-provision of the required data to the MIDRMA.

Development of the MID RVSM SMR 2015

6.29 The meeting agreed that for the development of the MID RVSM SMR 2015, the Flight Plan/Traffic Data will be collected for the period **1 – 30 September 2015**.

6.30 It was reiterated that the required data must be submitted in the right format and in the formulated excel sheet designed for this purpose which is the only sheet recognized by the MID Risk Analysis Software (MID RAS). Any data received in a different format, or in an excel sheet different from the one available on the MIDRMA website (www.midrma.com) will not be acceptable.

6.31 Based on the above, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 1/7: MID RVSM SMR 2015

That,

*a) the FPL/traffic data for the period **1 – 30 September 2015** be used for the development of the MID RVSM Safety Monitoring Report (SMR 2015);*

b) only the appropriate Flight Data form available on the MIDRMA website (www.midrma.com) should be used for the provision of FPL/traffic data to the MIDRMA; and

c) *the final version of the MID RVSM SMR 2015 be ready for presentation to and endorsement by MIDANPIRG/16.*

MIDRMA Board/13 Draft Conclusions and Decisions

6.32 The meeting reviewed and supported all the MIDRMA Board/13 Draft Conclusions and Decisions. Accordingly, the meeting agreed that the following Draft Conclusions be presented to MIDANPIRG/15 for endorsement:

DRAFT CONCLUSION 13/5: QATAR MEMBERSHIP TO THE MIDRMA BOARD

That, Qatar be invited to join the MIDRMA Board by signing the MIDRMA Memorandum of Agreement (MOA).

DRAFT CONCLUSION 13/7: MIDRMA REVISED MEMORANDUM OF AGREEMENT

That,

a) the revised version of the MIDRMA Memorandum of Agreement (MOA) at Appendix 3G be endorsed, to replace and supersede the MIDRMA MOA dated 27 February 2006; and

b) the ICAO MID Regional Office follow-up with the MIDRMA Member States the signature of the revised version of the MOA dated 12 March 2014.

DRAFT CONCLUSION 13/8: ONLINE REPORTING OF LARGE HEIGHT DEVIATION (LHD)

That, States:

a) be urged to use only the online tool at (http://www.midrma.com/lhd) for reporting LHDs starting from 1 May 2014; and

b) be encouraged to provide feedback to the MIDRMA for further improvement of the tool.

DRAFT CONCLUSION 13/9: SIMPLIFIED LARGE HEIGHT DEVIATION (LHD) PROCEDURE

That, States be urged to implement a procedure within their ACCs to easily trigger the LHD reporting process.

DRAFT CONCLUSION 13/10: MIDRMA FOCAL POINTS

That, States be invited to designate a MIDRMA Airworthiness/Flight Operations Focal Point to facilitate the coordination process between the MIDRMA and the Airworthiness/Flight Operations Authorities responsible for granting RVSM approvals

DRAFT CONCLUSION 13/11: PURCHASE OF TWO (2) ENHANCED GMU DEVICES FROM CSSI

That, the MIDRMA purchase two (2) Enhanced GMU devices from CSSI Company, in accordance with the CSSI Sale and Services proposed Agreement.

REPORT ON AGENDA ITEM 7: SEARCH AND RESCUE ISSUES

7.1. The meeting noted that the deficiencies related to the Search and Rescue (SAR) in the MID Region were mainly related to the:

a) lack of signature of SAR agreements;
b) lack of plans of operations for the conduct of SAR operations and SAR exercises;
c) lack of provision of required SAR services; and
d) non-compliance with the carriage of Emergency Locator Transmitter (ELT) requirements.

7.2. The meeting reviewed and updated the status of SAR agreements between ANSPs in the MID Region as at **Appendix 7A**.

7.3. The meeting recalled that MIDANPIRG/14 noted the concerns raised by States related to the difficulties they are facing in the implementation of ICAO Annex 12 provisions related to SAR cooperation and coordination. The meeting agreed that a step-wise approach should be followed for the implementation of these provisions. In this respect, it was highlighted that the Model of SAR Agreement available in the International Aeronautical and Maritime Search and Rescue Manual (IAMSAR Manual) (Doc 9731, Volume I, Appendix I) does not support this approach, since it covers all the Annex 12 Standards and Recommended Practices related to SAR cooperation. Accordingly, MIDANPIRG/14 agreed that a simplified MID Region Model of SAR Agreement/ Bilateral Arrangements should be developed to foster the implementation of Annex 12 provisions in a step-wise approach; and urged States to include in the Letter of Agreements (LoA) between the Area Control Centres (ACCs) a Section related to SAR cooperation.

7.4. In connection with the above, the meeting recalled that the national SAR Legislative and Regulatory framework should provide for the cooperation and coordination with neighboring States of the SAR operations, especially when these operations are proximate to adjacent Search and Rescue Regions (SRR).

7.5. Based on the above, MIDANPIRG/14 agreed to the following Decision:

DECISION 14/16: SEARCH AND RESCUE COOPERATION

That, the ATM Sub-Group develop a simplified MID Region Model of SAR Agreement/Bilateral Arrangements to foster the implementation of Annex 12 provisions related to SAR cooperation in a step-wise approach.

7.6. The meeting received with appreciation the proposals presented by Bahrain, Iran and UAE related to the SAR Letter of Agreement Model as well as some other proposals that might enhance the SAR services in the MID Region.

7.7. Based on the foregoing, the meeting agreed to the establishment of a MID SAR Action Group composed of SAR Experts from volunteer States and ICAO. The meeting agreed that the Action Group should develop a SAR Agreement/Bilateral Arrangement Model based on the proposed models/templates, carry out a gap analysis related to the status of implementation of SAR services in the MID Region based mainly on the USOAP-CMA data; and develop necessary recommendations and guidance that would enhance the SAR services in the MID Region. The meeting agreed that the outcome of the Action Group be presented to the MSG/4 or ANSIG/1 meeting. Accordingly, the meeting agreed to the following Draft Decision:

DRAFT DECISION 1/8: MID SEARCH AND RESCUE ACTION GROUP

That, a MID SAR Action Group be established with Terms of Reference as at ***Appendix 7B****.*

a) develop a simplified MID Region Model for SAR Agreement/Bilateral Arrangements to foster the implementation of Annex 12 provisions related to SAR cooperation in a step-wise approach;

b) carry out a Gap Analysis related to the status of implementation of SAR services in the MID Region; and

c) develop necessary recommendations and guidance that would enhance the SAR services in the MID Region.

7.8. The meeting noted with appreciation that all the MID States have designated a SAR Point of Contact (SPOC) for the reception of the COSPAS-SARSAT messages. The meeting reviewed and update the SPOC contact details as at **Appendix 7C**. The meeting invited States to update their SPOC details, as appropriate, by accessing the COSPAS-SARSAT website through the following link: http://www.cospas-sarsat.org/en/component/cospasfrontend/ .

7.9. The meeting reviewed and updated the MID Region SAR Focal Points List as at **Appendix 7D**.

7.10. The meeting reviewed the Safety Recommendations related to SAR at **Appendix 7E**, which were issued further to the loss of the AFR flight 447 on 1 June 2009 over the Atlantic Ocean, and the associated follow-up actions undertaken by ICAO.

7.11. The meeting noted that events such as the loss of AF447 and the disappearance of MH370 for a prolonged period of time have reiterated the need to improve global flight tracking capabilities in the near term. Accordingly, a Special Meeting on Global Flight Tracking was convened in Montreal, Canada, 12-13 May 2014 to address the flight tracking issues. The meeting was apprised of the Recommendations issued by the Bureau d'Enquêtes et d'Analyses pour la Sécurité de L'aviation Civile (Accident Investigation Bureau of France, BEA) related to the disappearance of AF 447 investigations and by the ICAO High-level Safety Conference (HLSC) held in Montreal, Canada, 29 March – 1 April 2010.

7.12. It was highlighted that the Special Meeting on Global Flight Tracking noted that:

- ICAO Air Navigation Commission (ANC) tasked the Operational Data Link Panel (OPLINKP) with the review of ICAO SARPs and guidance material with the objective of improving safety for flights over oceanic and remote areas, based on the Recommendations from the BEA report and the HLSC 2010.

- Changes to ICAO Annex 10 — *Aeronautical Telecommunications*, Volume II — *Communication Procedures including those with PANS status* and ICAO *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM, Doc 4444) will become applicable in November 2014 to facilitate surveillance of aircraft, using existing equipage and technology. It will require operators and air navigation service providers to make better use of existing Controller-pilot Data Link Communications (CPDLC) and Automatic Dependent

Surveillance – Contract (ADS-C) through the implementation of more stringent procedures to ensure successful logon between ground and airborne systems, as well as the introduction of mandatory warnings sent to Air Traffic Control (ATC) by an aircraft whenever deviations from the cleared route of flight and level are detected. This was determined to be an initial step for the improvement of surveillance and communications over oceanic and remote areas. This was also identified as a low cost solution, using existing equipage and technology. It was not meant to mandate additional equipage.

7.13. The meeting reviewed the Conclusions and Recommendations of the Special Meeting on Global Flight Tracking at **Appendix 7F**. Accordingly, the meeting encouraged States and Users to take necessary measures to support the implementation of the Special Meeting on Global Flight Tracking Recommendations.

7.14. The meeting noted that Bahrain will be hosting the ICAO/IMO SAR Conference on 14-15 October 2014 and that the Invitation Letter will be issued in due course. Accordingly, the meeting invited States to actively participate in this Conference.

MID eANP Parts related to SAR

7.15. The meeting reviewed and updated the MID eANP parts related to SAR as at **Appendix 7G** and agreed that States to provide their comments and inputs for the population of the different SAR Tables to the ICAO MID Regional Office by **30 August 2014**, for further review by the ANP WG/2 meeting in December 2014.

7.16. Based on the above, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 1/9: MID eANP PARTS RELATED TO SAR

*That, States be urged to provide the ICAO MID Regional Office with their inputs and comments for the population of the different SAR Tables by **30 August 2014**, for the presentation of a consolidated version of the MID eANP Parts related to SAR to the ANP WG/2 meeting.*

REPORT ON AGENDA ITEM 8: REVIEW OF AIR NAVIGATION DEFICIENCIES IN THE ATM AND SAR FIELDS

8.1 The meeting recalled that MIDANPIRG/14 re-iterated that the identification and reporting of Air Navigation Deficiencies by User-Organizations contribute significantly to the enhancement of air navigation safety in the MID Region. Nevertheless, the meeting noted with concern that the use of the MID Air Navigation Deficiency Database (MANDD) is far below expectation. Accordingly, the meeting urged States and authorized Users to use the MANDD for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies.

8.2 The meeting recalled that MIDANPIRG/14 recognized the need for a formal procedure to be used for the elimination of deficiencies from the MANDD and accordingly agreed to the following Conclusion to replace and supersede MIDANPIRG/13 Conclusion 13/63:

CONCLUSION 14/32: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION

That, States be urged to:

a) use the MID Air Navigation Deficiency Database (MANDD) for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies; and

b) submit a Formal Letter to the ICAO MID Regional Office containing the evidence(s) that mitigation measures have been implemented for the elimination of deficiency(ies) when requesting the elimination of deficiency(ies) from the MANDD.

8.3 The meeting recalled that MIDANPIRG/14 recognized the need to review the methodology used for the prioritization of the air navigation deficiencies emphasizing that the deficiencies priority "U" have a **direct** impact on safety and require **immediate** corrective measures. Accordingly, the meeting agreed that all the priority "U" deficiencies in the ATM field related to RVSM to be changed to priority "A".

8.4 The meeting emphasized that the States should develop a Corrective Action Plan (CAP) for each air navigation deficiency and noted that the majority of the CAPs were not specifying a set of clear actions from States with specific timelines for the elimination of the deficiencies. Accordingly, the meeting agreed that the ICAO MID Regional Office delete all the current information reflected in the CAP column and urged States to use the MANDD to propose specific CAP for each deficiency.

8.5 The meeting recalled that MIDANPIRG/14 noted that the deficiencies related to the Safety Management System (SMS) implementation in the fields of AGA and ATM were removed from the MANDD, since they are addressed under the framework of the Middle East Regional Aviation Safety Group (RASG-MID) and USOAP-CMA and underlined the need to reduce to the extent possible the interference between the air navigation deficiencies and USOAP-CMA findings.

8.6 Based on the above, the meeting agreed that the air navigation deficiencies related to the SAR Agreements and the lack of plans of operations for the conduct of SAR operations and SAR exercises, be removed from the MANDD since they are fully addressed under USOAP-CMA framework. In addition, the meeting recognized that the signature of SAR agreements is far beyond the scope of the ANSPs or Civil Aviation Authorities and is addressed as such within the framework of USOAP-CMA.

8.7 Based on all of the foregoing, the meeting reviewed and updated the list of deficiencies in the ATM and SAR fields as at **Appendices 8A** and **8B**, respectively and noted that the list included also the deficiencies related to Libya and Sudan. The meeting urged States to take necessary actions to implement the provisions of the MIDANPIRG/14 Conclusion 14/32.

REPORT ON AGENDA ITEM 9: FUTURE WORK PROGRAMME

9.1 The meeting reviewed the Terms of Reference (TOR) of the ATM Sub-Group as at **Appendix 9A** and agreed that they are still valid and current.

9.2 Taking into consideration, the planned ICAO MID Regional upcoming events which are of relevance to the activity of the ATM Sub-Group, in particular the MSG/4, ANSIG/1 and MIDANPIRG/15, the meeting agreed that the ATM SG/2 meeting be held during the second half of 2015. The venue will be Cairo, unless a State is willing to host the meeting.

REPORT ON AGENDA ITEM 10: ANY OTHER BUSINESS

10.1 Nothing has been discussed under this Agenda Item.

APPENDICES

FOLLOW-UP ACTION PLAN ON MIDANPIRG/14 CONCLUSIONS AND DECISIONS

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
DECISION 14/2: UPDATED OF THE MIDANPIRG PROCEDURAL HANDBOOK That, the Seventh Edition of the MIDANPIRG Procedural Handbook be endorsed as at **Appendix 4.1B** to the Report on Agenda Item 4.1.	Update the MIDANPIRG Procedural Handbook and post it on the web	ICAO	Seventh Edition of the Procedural Handbook	Feb. 2014	Completed
DECISION 14/3: TERMS OF REFERENCE OF THE ATM PERFORMANCE TASK FORCE (APM TF) That, the Air Traffic Management Measurement Task Force (ATM-M TF) be renamed Air Traffic Management Performance Measurement Task Force (APM TF) with Terms of Reference as at **Appendix 4.1C** to the Report on Agenda Item 4.1.	Implement the work programme of the APM TF	MIDANPIRG/14	TOR of the APM TF endorsement	Dec. 2013	Completed
CONCLUSION 14/4: ASSISTANCE FOR THE DEVELOPMENT/UPDATE OF THE NATIONAL AIR NAVIGATION PERFORMANCE FRAMEWORK That, ICAO, in coordination with concerned States and Stakeholders (IATA, CANSO, ACI, etc): a) develop a plan for joint missions to identified States to support the development/update of the National Air Navigation Performance Framework in an effective and timely manner; and b) agree on the priorities and plans of action to be reflected in the National Air Navigation Performance Framework to improve the efficiency of air navigation at national and regional level, in accordance with the MID Air Navigation Strategy.	Implement the Conclusion	ICAO States	State Letter Missions to States/ development of National Performance Framework	Feb. 2014 Dec. 2014	Actioned SL AN 1/7-14/124 dated 6 May 2014
CONCLUSION 14/5: MID REGION AIR NAVIGATION PRIORITIES That, a) the ASBU Block 0 Modules Prioritization Table at **Appendices 4.1E** to the Report on Agenda Item 4.1 be endorsed as the initial version of the MID ASBU Implementation Plan; and	Regular Review	MIDANPIRG/14	ASBU Prioritization Table	Dec. 2013	Ongoing

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
b) the ASBU Block 0 Modules Prioritization Table be reviewed on regular basis and be extended to cover Block 1 Modules, as appropriate.		MIDANPIRG Subsidiary bodies		Sep. 2014	
CONCLUSION 14/6: DRAFT MID REGION AIR NAVIGATION STRATEGY That, a) the Draft MID Region Air Navigation Strategy at **Appendix 4.1F** to the Report on Agenda Item 4.1 be: i. endorsed as the initial version of the MID Region Air Navigation Strategy; and ii. further reviewed and completed by the different MIDANPIRG subsidiary bodies b) MID States be urged to: i. develop their National Air Navigation Performance Framework, ensuring the alignment with and support to the MID Region Air Navigation Strategy; ii. incorporate the agreed MID Region Performance Metrics into their National Reporting and Monitoring Mechanisms; and iii. provide the ICAO MID Regional Office, on annual basis, with relevant data necessary for Regional Air Navigation Planning and Monitoring.	Implement the Strategy	MIDANPIRG/14 MIDANPIRG Subsidiary bodies ICAO States States	Initial version of the Strategy Review and Update Strategy State Letter National Performance Framework Feedback	Dec. 2013 Sep. 2014 Feb. 2014 May 2014 Dec. 2014	Actioned SL AN 1/7-14/123 dated 6 May 2014
CONCLUSION 14/11: IMPLEMENTATION OF THE TOP TEN ATS ROUTES That, concerned States be urged to take necessary measures to implement the identified routes at **Appendix 4.3A** to the Report on Agenda Item 4.3.	Implement the Conclusion	ICAO States	State Letter Feedback	Jan. 2014 May 2014	Actioned SL AN 6/5.8-14/106 dated 16 April 2014

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/12: CIVIL/MILITARY COOPERATION That, States be urged to a) develop necessary institutional arrangements to foster Civil/Military cooperation; and b) arrange as necessary for the Military Authorities to be: i. involved in the airspace planning and management process; ii. aware of the new developments in Civil Aviation; and iii. involved in national, regional and international aviation meetings, workshops, seminars, etc., related to Air Traffic Management and Search and Rescue.	Implement the Conclusion	ICAO States	State Letter Feedback	Feb. 2014 Sep. 2014	Actioned SL AN 6/13-14/105 dated 16 Apr. 2014
CONCLUSION 14/13: FLEXIBLE USE OF AIRSPACE That, States be urged to take necessary: a) Follow-up actions to implement the provisions of Recommendation 4/5 of the AN-Conf/12; and b) measures to implement the Flexible Use of Airspace (FUA) Concept through strategic Civil/Military coordination and dynamic interaction, in order to open up segregated airspace when it is not being used for its originally-intended purpose and allow for better airspace management and access for all users.	Implement the Conclusion	ICAO States	State Letter Feedback	Feb. 2014 May. 2014	Actioned SL AN 6/13-14/105 dated 16 Apr. 2014

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/14: MID CIVIL/MILITARY GO-TEAM That, a) a MID Civil/Military Go-Team be established to expedite the implementation of the Flexible Use of Airspace (FUA) Concept in the MID Region; and b) the details related to the scope, Tasks, Pre-Go-Team Visit arrangements, on-site activities, and outcomes of the Civil/Military Go-Teams be discussed during the next ATM Sub-Group meeting.	Implement the Conclusion	MIDANPIRG/14 ATM SG.	Civil/Military Go-Team established Go-Team scope, scope, tasks, activities, etc.	Dec. 2013 May 2014	(To be replaced and superseded by ATM SG/1 Draft Conclusion 1/5)
CONCLUSION 14/15: MID REGION ATM CONTINGENCY PLAN That, the MID Region ATM Contingency Plan be endorsed as at Appendix 4.3B to the Report on Agenda Item 4.3.	Implement the Conclusion	MIDANPIRG/14	MID Region ATM Contingency Plan	Dec. 2013	Completed
DECISION 14/16: SEARCH AND RESCUE COOPERATION That, the ATM Sub-Group develops a simplified MID Region Model of SAR Agreement/Bilateral Arrangements to foster the implementation of Annex 12 provisions related to SAR cooperation in a step-wise approach.	Implement the Conclusion	ATM SG	SAR Agreement/ Bilateral Arrangements Template	May 2014	Actioned (MID SAR AG established through ATM SG/1 Draft Decision 1/7)
CONCLUSION 14/17: MID REGION ATM ENHANCEMENT PROGRAMME (MAEP) – SPECIAL COORDINATION MEETING That, States and Users be urged to provide the ICAO MID Regional Office with their proposals related to MAEP by 25 January 2014, for presentation to the MAEP-SCM scheduled for 18-20 February 2014.	Implement the Conclusion	ICAO States/Users	State Letter Proposals related to MAEP	Jan. 2014 Feb. 2014	Completed SL AN 6/31.1-14/012 dated 15 January 2014

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/23: MID AIDC/OLDI IMPLEMENTATION SEMINAR That States, a) support ICAO in organising a Seminar on implementation of AIDC/OLDI; b) participate actively in the Seminar; and c) with the support of ICAO develop the MID AIDC/OLDI Implementation Plan.	Convene the Seminar	ICAO	Seminar	Mar. 2014	Completed
DECISION 14/24: DEVELOPMENT AND ENDORSEMENT OF THE MID eANP That, in support to the ICAO efforts to align the Regional Air Navigation Plans (ANP) with the Fourth Edition of the Global Air Navigation Plan (GANP) (Doc 9750): a) the development of the MID eANP based on the Council-approved ANP Template, be included in the work programme of the different MIDANPIRG subsidiary bodies; and b) the relevant Parts of the MID eANP be presented, as soon as available, to MSG/4 and/or MIDANPIRG/15 for endorsement.	Implement the Conclusion	MIDANPIRG subsidiary bodies MSG/4 and MIDANPIRG/15	MID eANP Parts	TBD Sep 2014 May 2015	Ongoing (Population of ATM and SAR Parts through ATM SG/1 Draft Conclusions 1/6 and 1/8, respectively)
CONCLUSION 14/25: INFPL POST IMPLEMENTATION-SYSTEM UPGRADES That, concerned States be urged to upgrade their systems to ensure the full handling of the ICAO New Flight Plan format before **30 June 2015**.	Implement the Conclusion	ICAO States	State Letter Feedback	Jan. 2014 Jun. 2015	Actioned SL AN 6/2B-14/122 dated 4 May 2014
CONCLUSION 14/28: MID REGIONAL PBN IMPLEMENTATION STRATEGY AND PLAN That, the MID Regional PBN Implementation Strategy and Plan be updated as at **Appendix 4.6C** to the Report on Agenda Item 4.6.	Implement the Strategy	MIDANPIRG/14	Updated Strategy	Dec. 2013	Completed

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/29: ESTIMATING AND REPORTING ENVIRONMENTAL BENEFITS That, in order to follow-up the implementation of the ATM operational improvements and estimate the accrued fuel savings and associated CO_2 emission reduction from the corresponding improvements on regional basis:	Implement the Conclusion				
a) States be encouraged to develop/update their Action Plans for CO_2 Emissions and submit them to ICAO through the APER website on the ICAO Portal or the ICAO MID Regional Office;		ICAO States	State Letter States' Action Plan for CO_2 emissions	Apr. 2014 Sep. 2014	
b) States be urged to: i. identify the operational improvements which have been implemented within their FIR and/or International Aerodromes; ii. collect necessary data for the estimation of the environmental benefits accrued from the identified operational improvements; iii. use IFSET to estimate the environmental benefits accrued from operational improvements; and iv. send the IFSET reports/the accrued environmental benefits to ICAO on bi-annual basis; and			IFSET Reports	Jun. and Dec. 2014	
c) IATA to: i) encourage users to support the APM TF in the development of the MID Region Air Navigation Environmental Reports; and ii) consolidate users' inputs and report the accrued environmental benefits to the ICAO MID Regional Office on bi-annual basis.		IATA	Inputs from users	Jun. and Dec. 2014	

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/32: ELIMINATION OF AIR NAVIGATION DEFICIENCIES IN THE MID REGION That, States be urged to: a) use the MID Air Navigation Deficiency Database (MANDD) for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies; and b) submit a Formal Letter to the ICAO MID Regional Office containing the evidence(s) that mitigation measures have been implemented for the elimination of deficiency(ies) when requesting the elimination of deficiency(ies) from the MANDD.	Implement the Conclusion	ICAO States	State Letter CAP and necessary updates/ evidences	Mar. 2014 When necessary	Actioned SL 2/2-14/109 dated 17 Apr. 2014
CONCLUSION 14/33: TRAINING ON RVSM SAFETY ASSESSMENT That, with a view to raise the awareness related to the requirements for sustained RVSM safety assessment activity and improve the knowledge of the ATC, RVSM approval Authority and Air Operators personnel, the MIDRMA include in its work programme training activity/briefings on RVSM safety assessment requirements to be provided to concerned personnel either through missions to concerned States or through familiarization visits organized in the MIDRMA premises, when and where appropriate.	Implement the Conclusion	MIDRMA	Training on RVSM Safety Assessment	2014-2015	Ongoing
DECISION 14/34: SCRUTINY GROUP WORK PROGRAMME That, in order to improve the efficiency of the MID RVSM Scrutiny Group, its work programme be included in the agenda of the MIDRMA Board meetings.	Implement the Decision	MIDANPIRG/14	Scrutiny Group Work Programme included in the Agenda of MIDRMA Board meetings	Dec. 2013	Completed

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/35: PROVISION OF REQUIRED DATA TO THE MIDRMA That, considering the on-going requirement for RVSM safety monitoring in the MID Region: a) States provide the required data to the MIDRMA on a regular basis and in a timely manner. The data is to include, but is not necessarily limited to: i) approval of operators and aircraft for RVSM operations (on monthly basis or whenever there's a change); ii) Large Height Deviations (LHD) (on monthly basis); iii) traffic data (as requested by the MIDRMA Board); iv) radar data as, when and where required; and v) airway structure (above FL 290) and waypoints. b) States not providing the required data to the MIDRMA on a regular basis and in a timely manner: i) be included in the MIDANPIRG list of air navigation deficiencies; and *ii)* might not be covered by the MID RVSM Safety Monitoring Report (SMR).	Implement the Conclusion	States	Provision of necessary data to the MIDRMA	When necessary (as required)	Actioned AN 6/5.10.15A 14/007 dated 9 January 2014
CONCLUSION 14/36: RVSM MINIMUM MONITORING REQUIREMENTS That, States that have not yet done so, be urged to: a) take necessary measures to ensure that their aircraft operators fully comply with Annex 6 provisions related to long term height monitoring requirements, based on the MIDRMA MMR Tables; and b) provide feedback to the ICAO MID Regional Office before **1 March 2014**.	Implement the Conclusion	ICAO Concerned States	State Letter Action and Feedback	Jan. 2014 Mar. 2014	Completed AN 6/5.10.15A 14/005 and 14/006 dated 9 January 2014

CONCLUSIONS AND DECISIONS	FOLLOW-UP	TO BE INITIATED BY	DELIVERABLE	TARGET DATE	REMARKS
CONCLUSION 14/37: ARRANGEMENTS FOR THE CONDUCT OF GMU MONITORING MISSIONS That, prior to the conduct of any GMU monitoring mission: a) the MIDRMA notify the concerned MIDRMA Board Member; and b) the MIDRMA Board Member is to undertake necessary arrangements at the national level with concerned authorities (CAA, Customs, Security, etc.) to facilitate the MIDRMA Team mission.	Implement the Conclusion	MIDRMA States	Notification Necessary arrangements/ support	When planning a GMU mission	Actioned AN 6/5.10.15A-13/240 dated 13 September 2013
CONCLUSION 14/38: MID RVSM SMR 2014 That, a) the FPL/traffic data for the period **15 January – 15 February 2014** be used for the development of the MID RVSM Safety Monitoring Report (SMR 2014); b) only the appropriate Flight Data form available on the MIDRMA website (www.midrma.com) should be used for the provision of FPL/traffic data to the MIDRMA; c) the initial results of the MID RVSM SMR 2014 be ready before 15/05/2014; and d) the final version of the MID RVSM SMR 2014 be ready for presentation to and endorsement by MIDANPIRG/15.	Implement the Conclusion	ICAO States MIDRMA	State Letter FPL/traffic data MID RVSM SMR 2014	Jan. 2015 Mar. 2014 May 2015	Actioned AN 6/5.10.15A 14/007 dated 9 January 2014

- END -

APPENDIX 4A

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

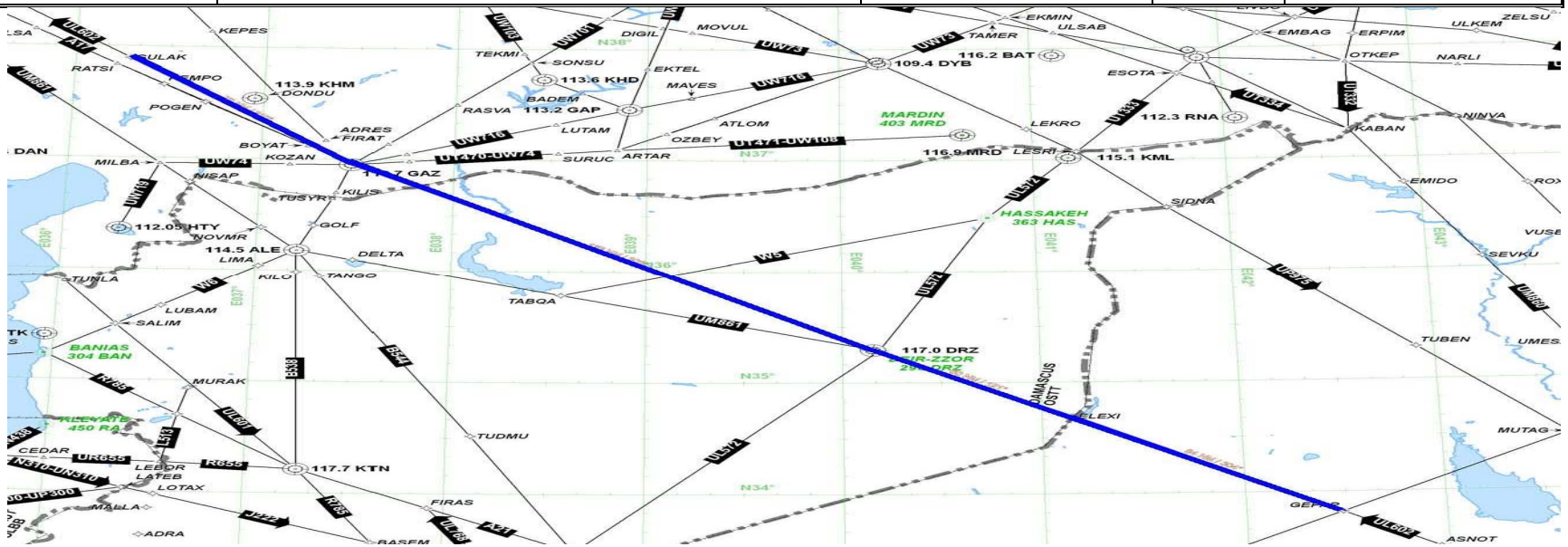
Table explanation

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

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

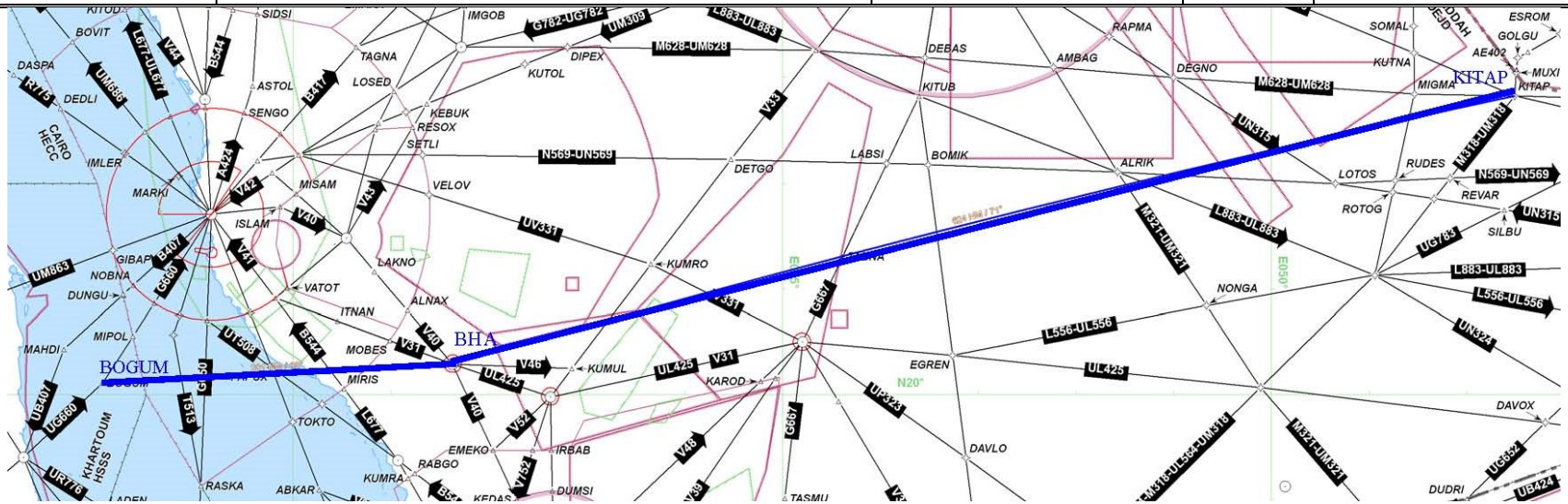


MID/RC-035 - (TPR 1)

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 CO2 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

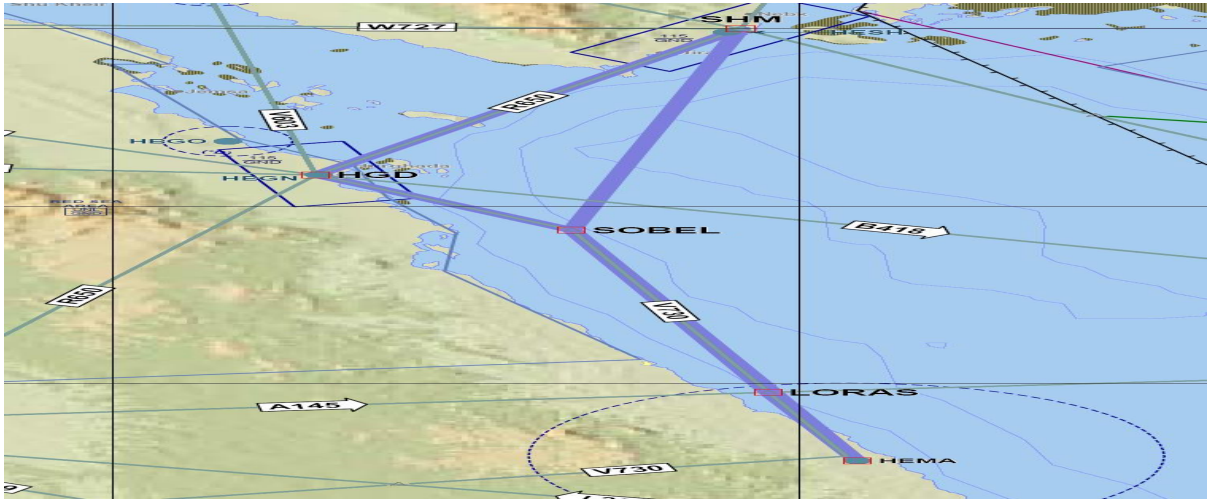
Route Description MAK-CVO		**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken / Required**	**Deadline for each Action**
GIBAL HGD CVO		Egypt Saudi Arabia		Implemented with opposite direction CVO-HGD Eastbound GIBAL-HGD Westbound	Already in ANP	Saudi Arabia 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

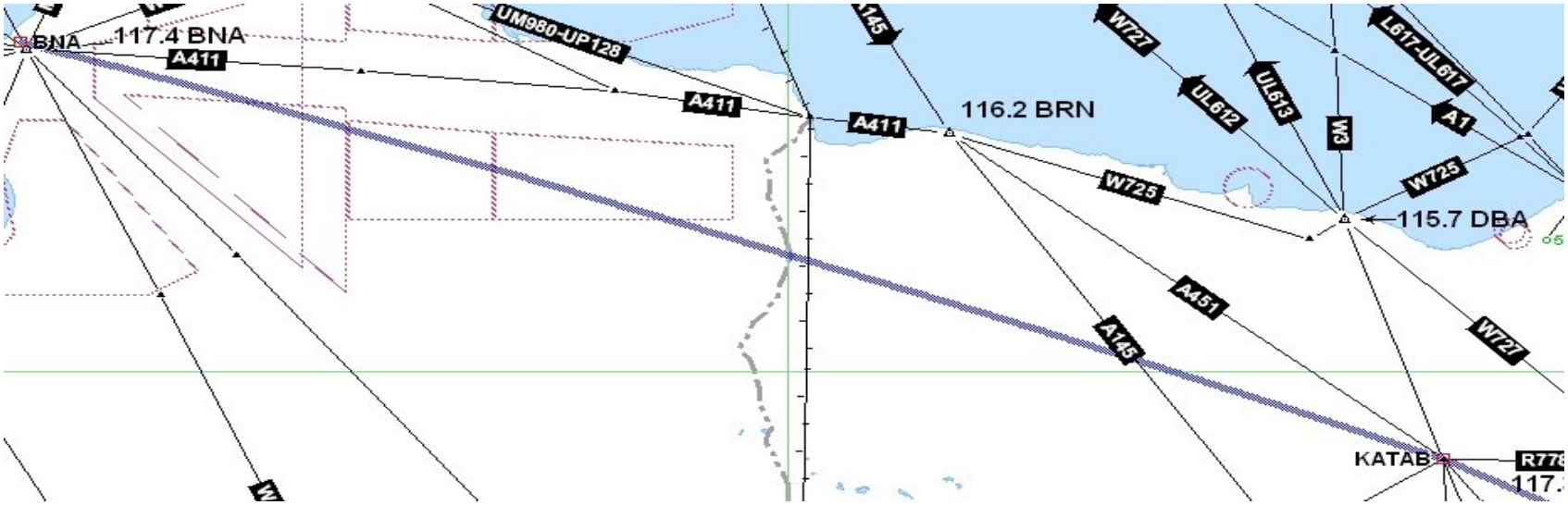
Route Description	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken / Required**	**Deadline for each Action**
HEMA-SHM						
	Egypt		No progress reported		IATA to provide further details Tied with L315 await further discussions from Egypt.	
Flight Level Band: Upper						
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.	Moved to ANP		Differed for the future Implement if possible Priority Routes Requires further coordination with concerned States Egypt and Libya to implement the route		
Flight Level Band: FL290 – FL410									
Potential City Pairs: CMN/ALG/TUN/TIP-DOH									
Conclusions/Remarks	This AWY would save considerable track miles BNA – KATAB – SEMRU Libya FIR to Egypt FIR						**Last updated**	ATM SG/1 June 2014	

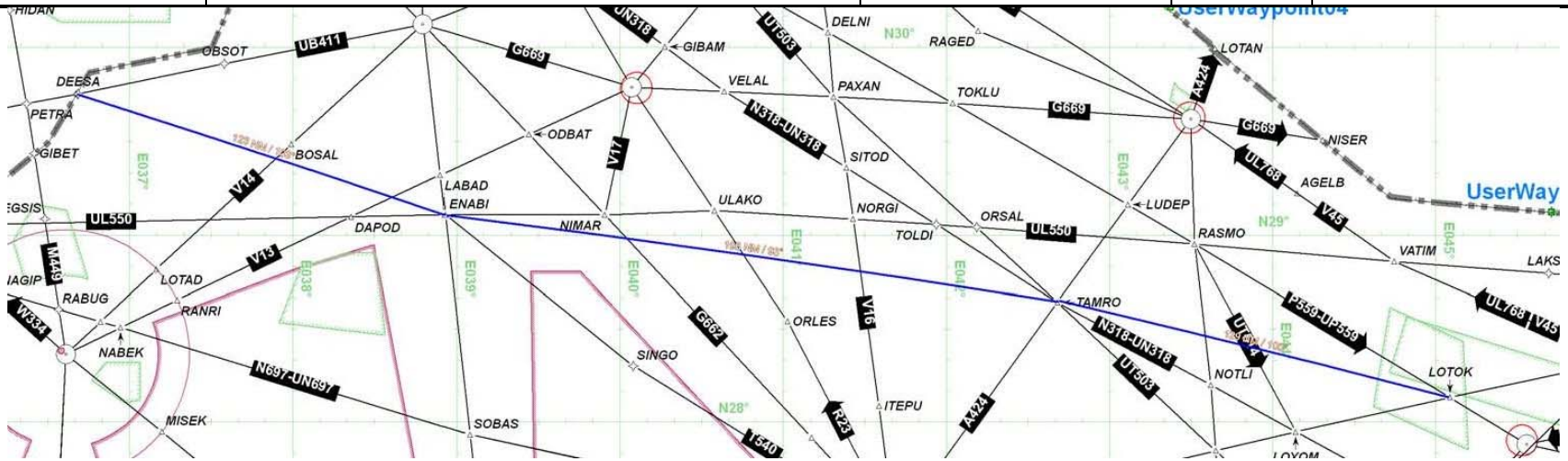


MID TPR 5

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

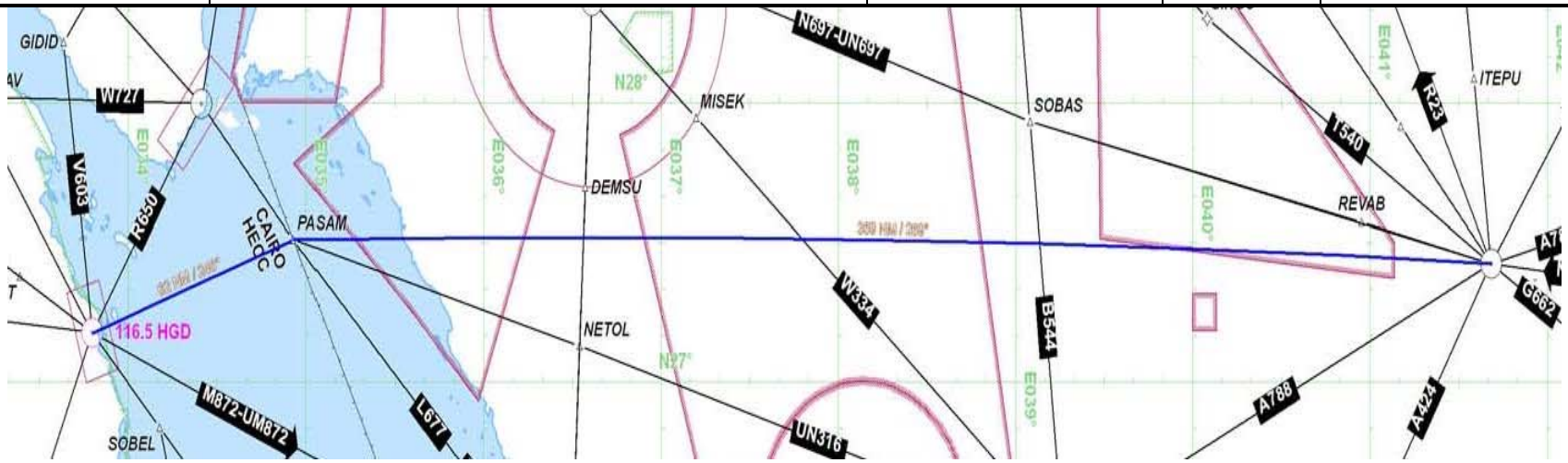


MID TPR 6

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

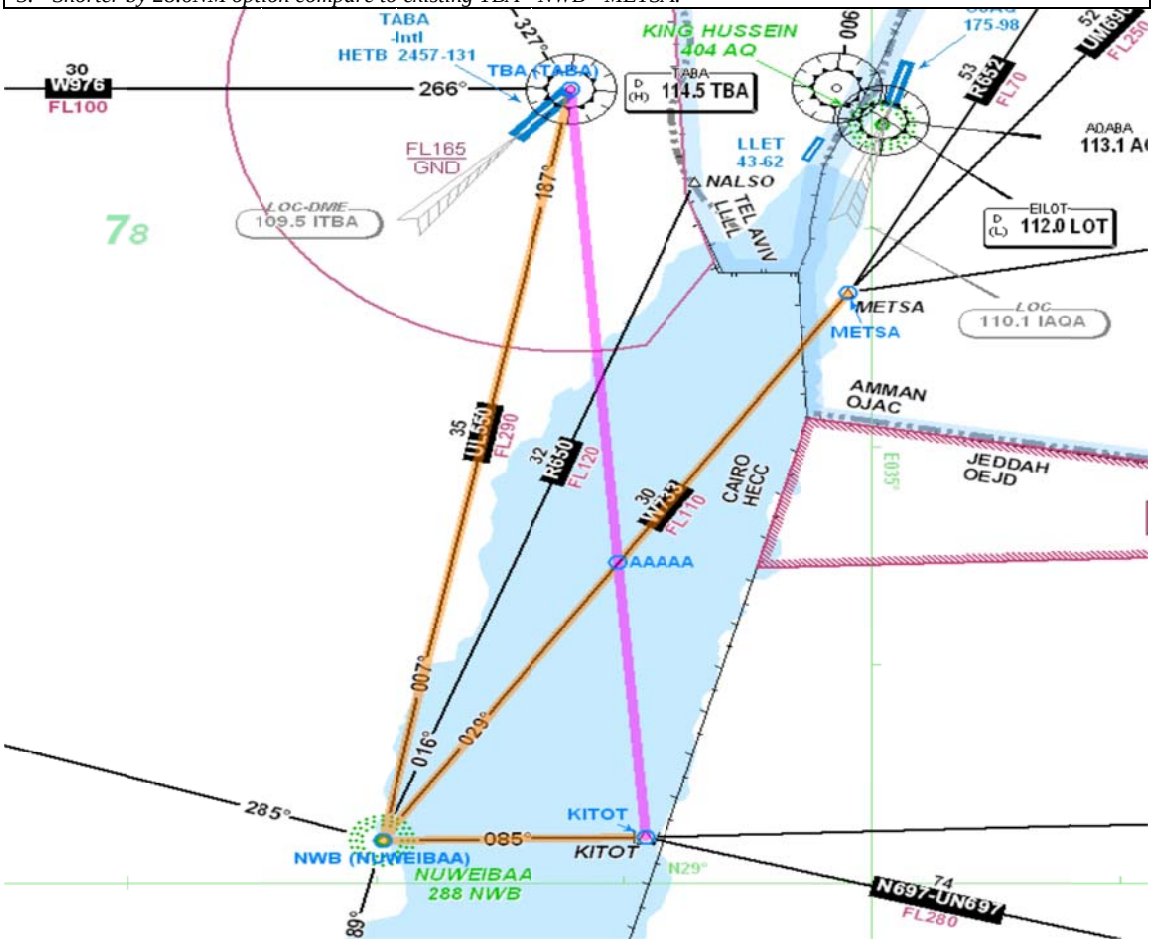


MID (TPR 7)

Eurocontrol proposals

Reference	Objective and Proposal	State(s) concerned
TPR 8	*Objective:* *To further improve ATS route network within Cairo FIR.* To implement bi-directional ATS route **TBA - AAAAA - KITOT**.	EGY **Originator** EUROCONTROL

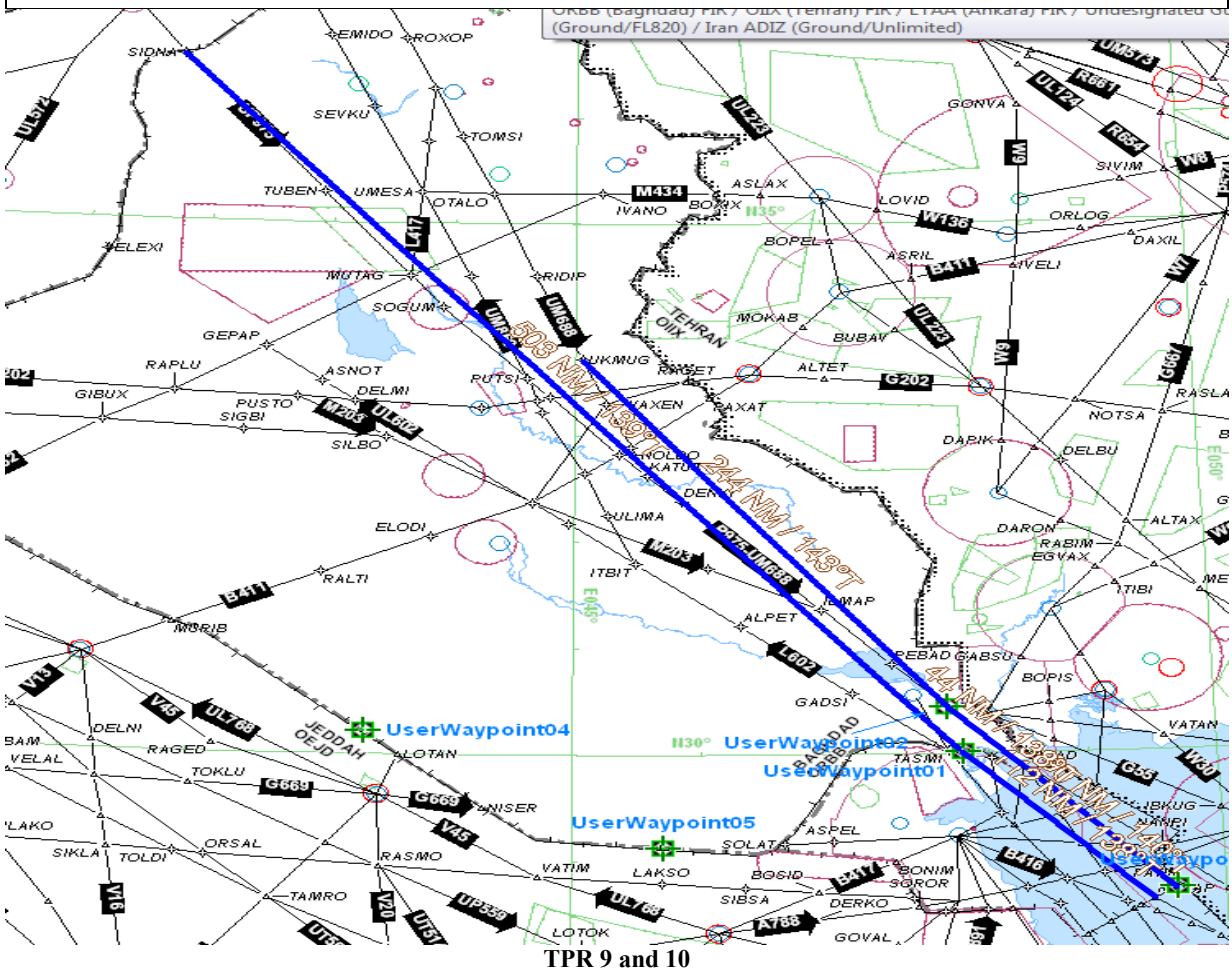
Notes:
1. *AAAAA - crossing point between new TBA - KITOT and existing ATS route W733 allowing connection to/from METSA.*
2. *Shorter by 9.2NM option compare to existing TBA - NWB - KITOT.*
3. *Shorter by 28.6NM option compare to existing TBA - NWB - METSA.*



(TPR 8)

Reference	Objective and Proposal	State(s) concerned
TPR 9	*Objective:* *To further improve ATS route network between Baghdad and Kuwait FIRs.* To implement ATS route **UKMUG-SIDAD- New Point East of RABAP then join the ATS Route network within Bahrain.**	Bahrain-Iraq-Kuwait **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.* To implement ATS route **SIDNA-New point West of ASLAN-RABAP**.	Bahrain-Iraq-Kuwait **Originator** ATM/AIM/SAR SG13 Oct 2013
Notes: *2. RNAV 1 Routes, target date of implementation second quarter of 2014.*		



TPR 9 and 10

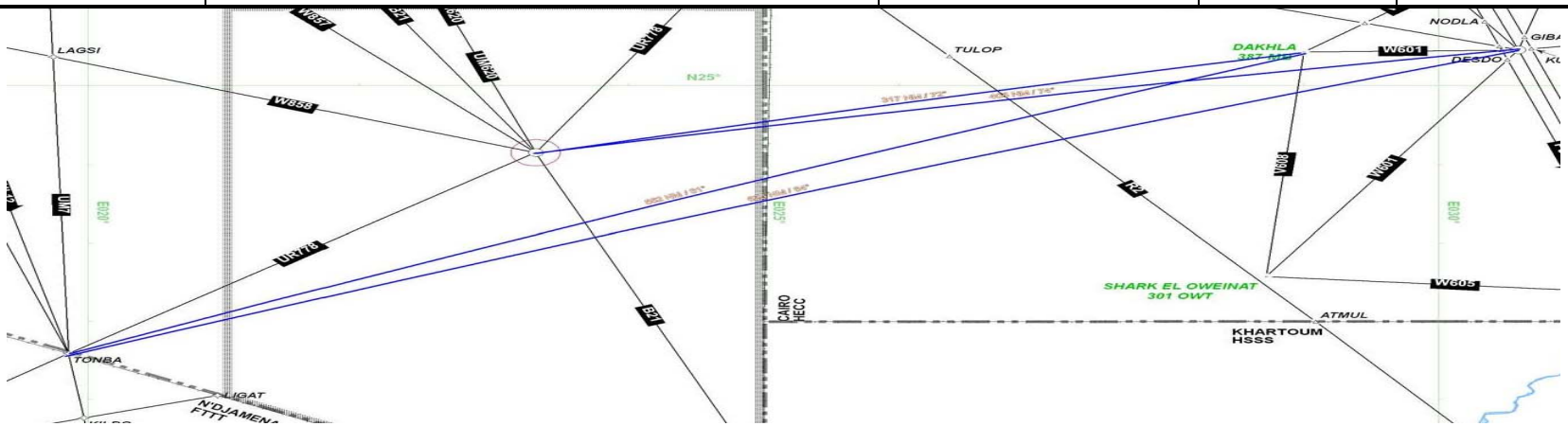
APPENDIX 4B

MID ATS ROUTES CATALOGUE

MID/RC-002 ***(Option1,2 ,3)***	**ATS Route Name:** New AWY Proposed between TONBA-KHG and KFR to MB (Dakhla) Or KHG	**Entry-Exit:** TONBA to KHG (Dakhla) Libya to Egypt FIR	**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**
(Opt 1) TONBA N2135.3 E01951.2 **KHG (N2526.9 E03035.4)** **(Opt 2) TONBA (N21 35.3 E 0-19 51.2) MB (N25 25.2 E029 00.1)** **(Opt 3) KFR (N24 09.2 E023 18.5)** **MB (N25 25.2 E029 00.1) Or** **KHG (N25 26.9 E030 35.4)**	Libya Egypt		No Progress reported.		- Egypt highlighted that UM999 already exists and is used by 3 to 5 flights a day also that communication is being upgraded with a new station at Dakhla. - To be considered with and similarly to Proposal 2 & 4. - Egypt unable to accept route due to safety issues. - Differed for the future	TBD
Flight Level Band: FL290 – FL410						
Potential City Pairs: West Africa airports-Doha						
Expect 50 eastbound wkly flights, saving 91000Kg of fuel and 282T of CO2 wkly. The number may double if used westbound.						

Conclusions/Remarks			**Last updated**	ATM SG/1 June 2014

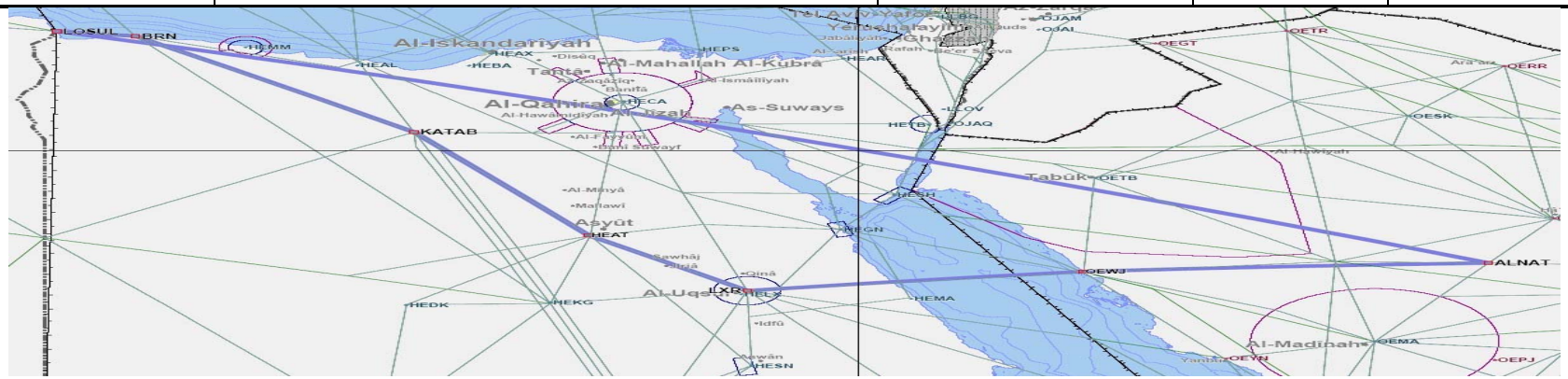


MID RC 002

MID/RC-044	**ATS Route Name:** **New Route**	**Entry-Exit:** LOSUL-ALNAT	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**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**
LOSUL ALNAT	Egypt Saudi Arabia		No Progress reported		Military restriction not possible at this time	
Flight Level Band:						
Potential City Pairs: DAAG, DTTA, GMMN, HLLT, DTTA to OBBI, OMAA, OMDB, OTBD (Central and Eastern Arabian Peninsula to Maghreb area)						

Conclusions/Remarks	**Saving 104 miles, 5051 Kg Co2 per flight.**		**Last updated**	ATM SG/1 June 2014

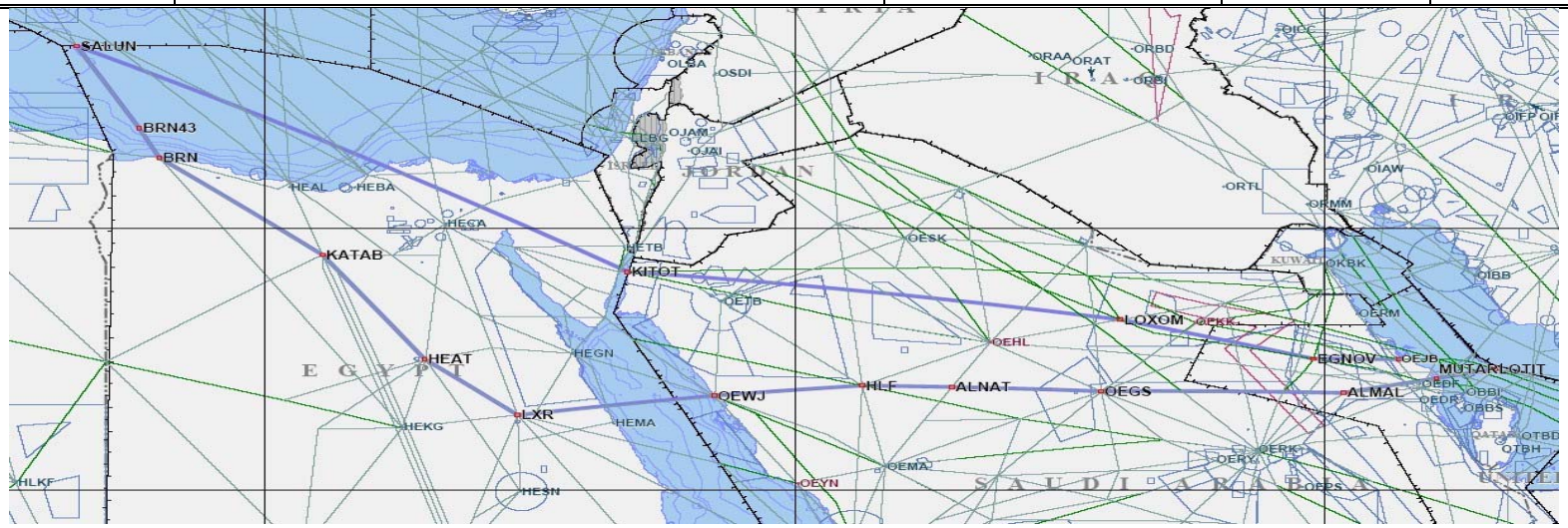


MID/RC-044

MID/RC-046	ATS Route Name: New Route	Entry-Exit: SALUN-EGNOV	Inter-Regional Cross Reference if any		Users Priority		Originator of Proposal	IATA
							Date of Proposal	ARN TF/2

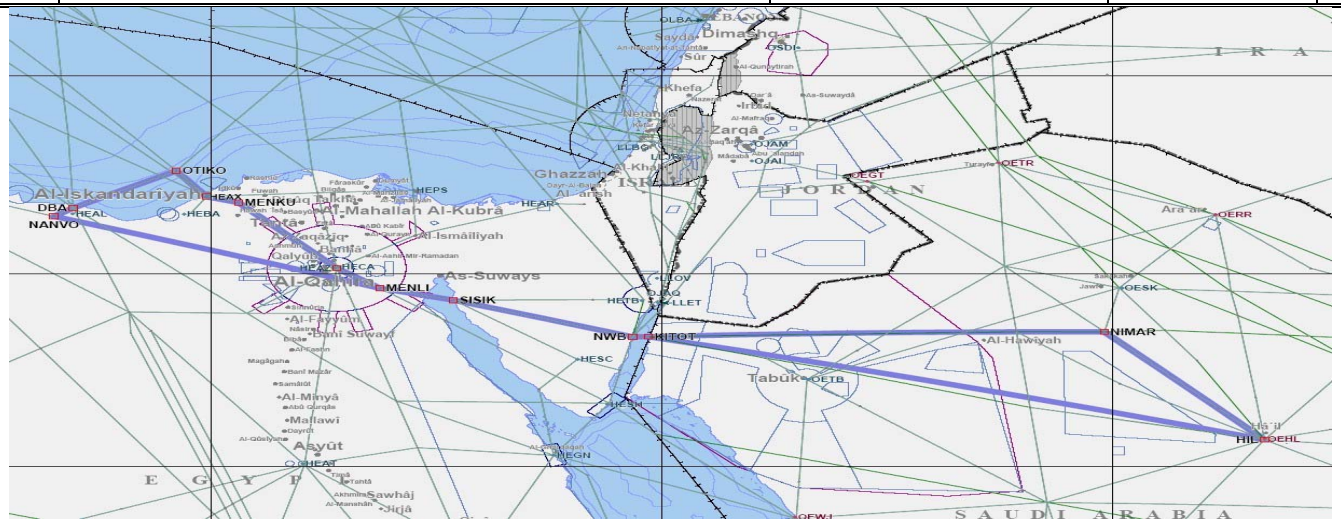
Route Description	States Concerned	Expected Impl. date	Implementation Status	ANP Status	Action Taken / Required	Deadline for each Action
SALUN KITOT LOXOM EGNOV	Egypt, Saudi Arabia		No progress reported		IATA to provide further details Implement if possible Priority Routes	
Flight Level Band:						
Potential City Pairs: DAAG, DTTA, GMMN, HECA, LIRF, LFMN to OBBI, OMAA, OMDB, OTBD (Eastern Arabian Peninsula to Egypt, Maghreb and Mediterranean areas)						

Conclusions/Remarks	Saves 275 miles and 8267 kg of CO2 per flight		Last updated	ATM SG/1 June 2014



MID/RC-046

MID/RC-047	**ATS Route Name:** **New Route**	**Entry-Exit:** HIL-NANVO	**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**
NANVO CVO N/UN 697		Egypt Saudi Arabia		No progress reported			IATA to provide further details Implement if possible Priority Routes Would be replaced by N697 if NAVO-CVO implemented		
Flight Level Band:									
Potential City Pairs: DAAG, DTTA, GMMN, HECA, HLLT, to OBBI, OERK, OMAA, OMDB, OTBD (Central and Eastern Arabian Peninsula to Egypt, Libya and Maghreb area)									
Conclusions/Remarks	**Saves 73 miles and 3900 Kg of CO2**						**Last updated**	ATM SG/1 June 2014	



MID/RC-047

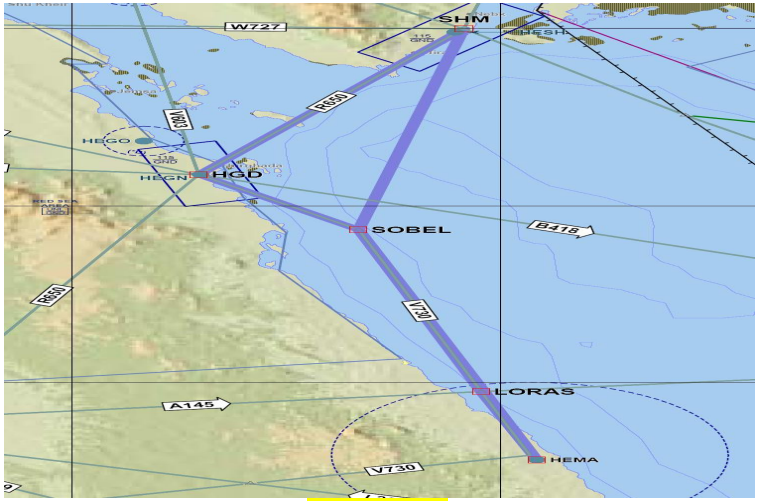
MID/RC-053	**ATS Route Name:** New Route	**Entry-Exit:** BALTIM-SHM	**Inter-Regional Cross Reference if any**		**Users Priority**		**Originator of Proposal**	IATA	
							Date of Proposal	ARN TF/2	
Route Description New Route BALTIM to SHM		**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**		**Action Taken / Required**		**Deadline for each Action**
BLT CAT SHM		Egypt		No progress reported			Possible Night rules by IAC Also to be provided to RMA Penetrates military airspace.		
Flight Level Band: Upper									
Potential City Pairs: Arabian Peninsula to Europe									
Conclusions/Remarks	Saves 24 miles / Flt						**Last updated**	ATM SG/1 June 2014	

MID/RC-053

MID/RC-056	**ATS Route Name:** New Route	**Entry-Exit:** HEMA-SHM	**Inter-Regional Cross Reference if any**	**TOP TEN**	**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**
HEMA-SHM						
	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	

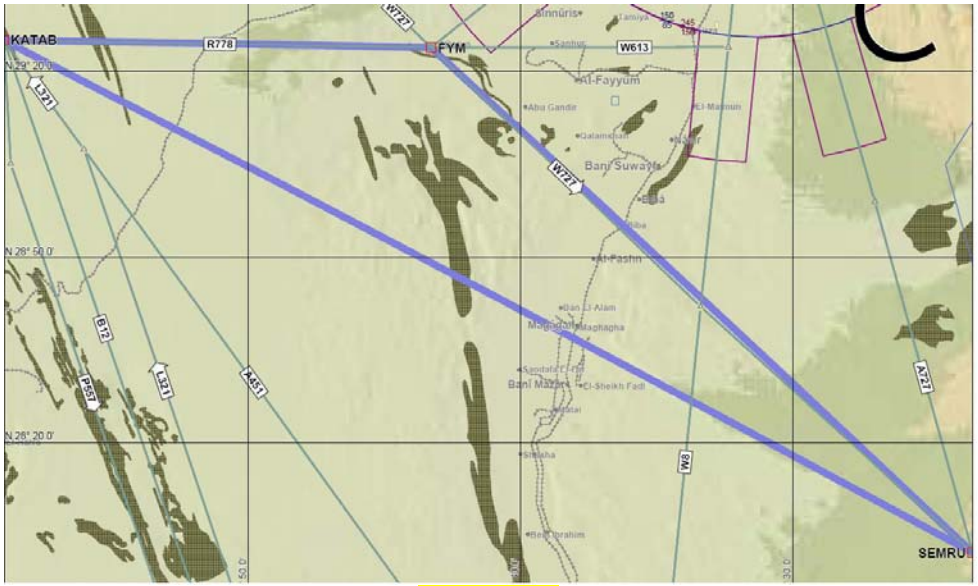


MID/RC-056

MID/RC-057	**ATS Route Name:** New Route	**Entry-Exit:** KHATAB-SEMRU	**Inter-Regional Cross Reference if any**		**Users Priority**	**Originator of Proposal**	IATA
						Date of Proposal	ARN TF/2

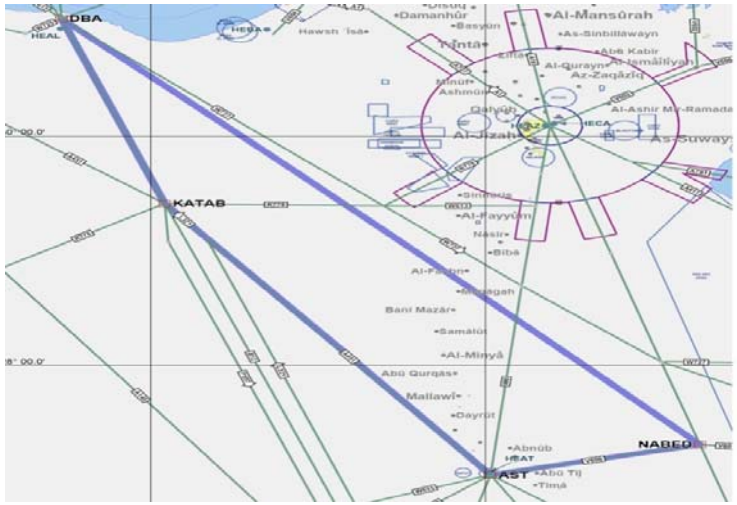
Route Description KATAB-SEMRU	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken / Required**	**Deadline for each Action**
	Egypt		No progress reported		IATA to provide further details Ongoing tourist flights	
Flight Level Band: Upper						
Potential City Pairs: Arabian Peninsula to North Africa						

Conclusions/Remarks	Saves 11 Miles		**Last updated**	ATM SG/1 June 2014



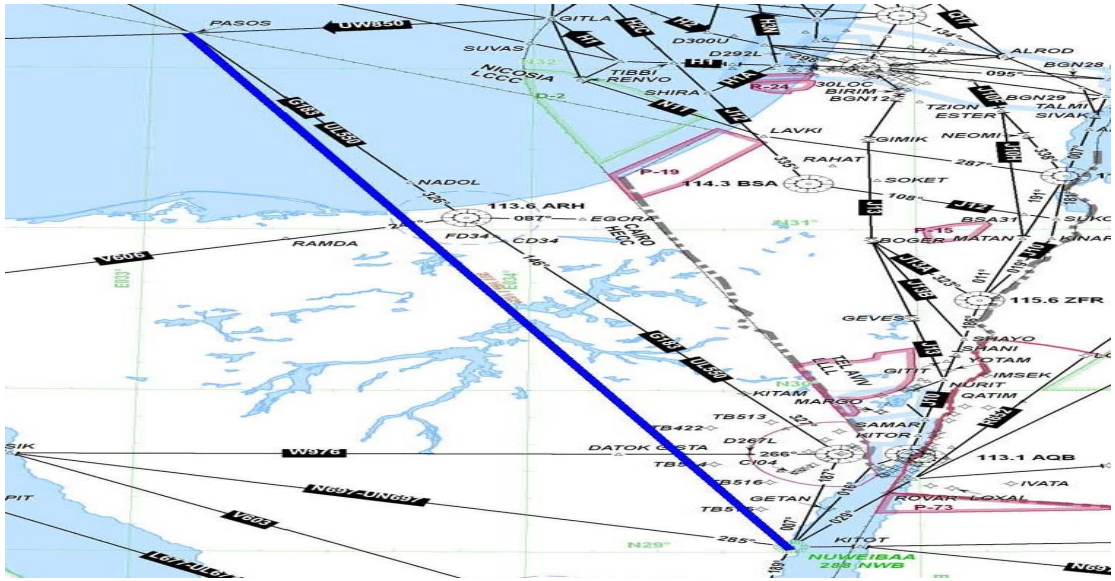
MID/RC-057

MID/RC-058	**ATS Route Name:** New Route	**Entry-Exit:** NADEB-DBA	**Inter-Regional Cross Reference if any**		**Users Priority**		**Originator of Proposal**	IATA	
							Date of Proposal	ARN TF/2	
Route Description NABED-DBA		**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 Not feasible Implement if possible Priority Routes		
Flight Level Band: Upper									
Potential City Pairs: Arabian Peninsula to Europe									
Conclusions/Remarks	Saves 47 Miles						**Last updated**	ATM SG/1 June 2014	



MID/RC-058

MID/RC-059	**ATS Route Name:** New Route	**Entry-Exit:** PASOS-NWB	**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**
		Egypt		No progress reported			IATA to provide further details Implement if possible Priority Routes		
Flight Level Band: Upper									
Potential City Pairs: Arabian Peninsula to Egypt									
Conclusions/Remarks	Saves 7 Miles						**Last updated**	ATM SG/1 June 2014	

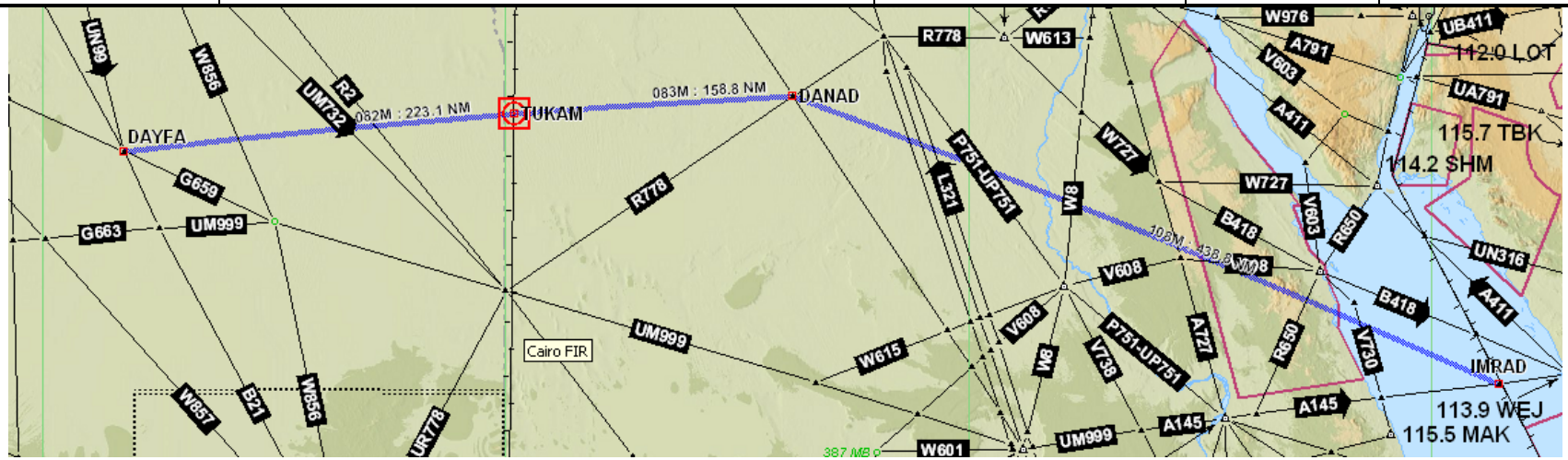


MID/RC-059

MID/RC-081	ATS Route Name: New Route UQ596	Entry-Exit: DAYFA – DANAD – IMRAD then A145 Eastbound Only	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
SEB HORUJ DAYFA DANAD IMRAD ALMAL	Libya Egypt Saudi Arabia		No progress reported	Not in the ANP	Needs to be discussed with Libya Needs to be discussed with Egypt Needs to be discussed with Jeddah FIR if A145 can be bidirectional East of LXR Implement if possible Priority Routes	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 SG/1 June 2014

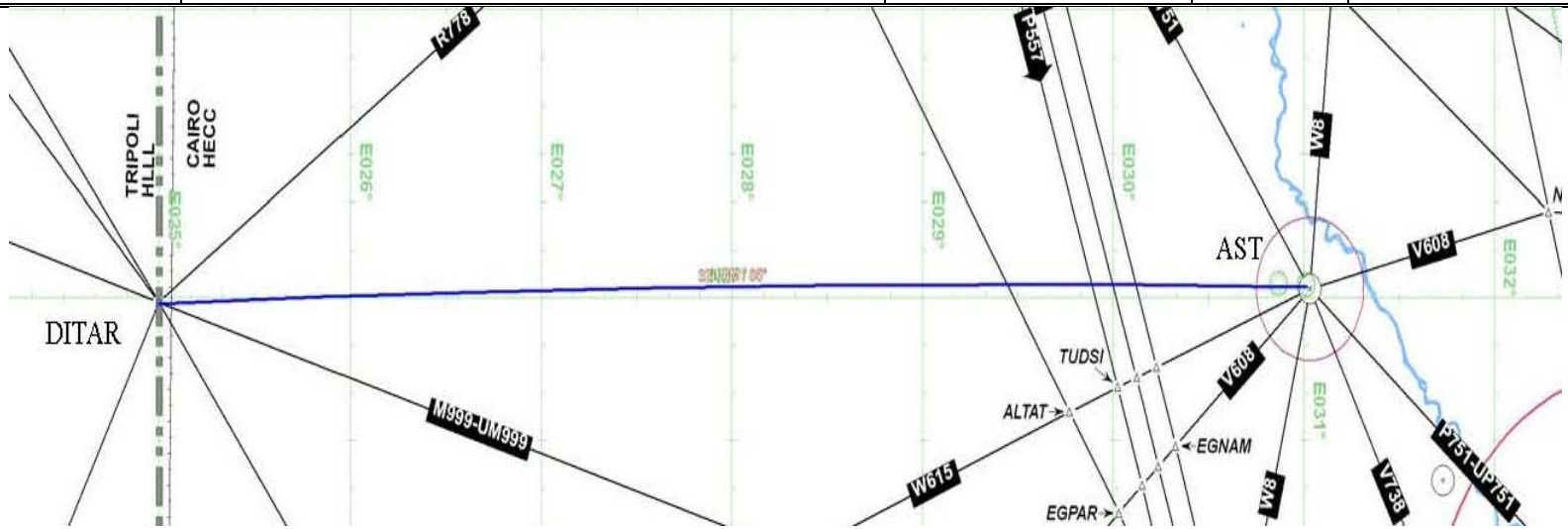


MID/RC-081

MID/RC-083	ATS Route Name: New Route UQ598 Westbound	Entry-Exit: DITAR – AST	Inter-Regional Cross Reference if any	TOP TEN	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
AST DITAR 26 59 03N 025 00 00E	Libya Egypt					Important Segment HGD-PASAM move d to ANP Egypt advised that DITAR-AST not possible currently.	TBD
Flight Level Band:							
Potential City Pairs:							

Conclusions/Remarks			Last updated	ATM SG/1 June 2014

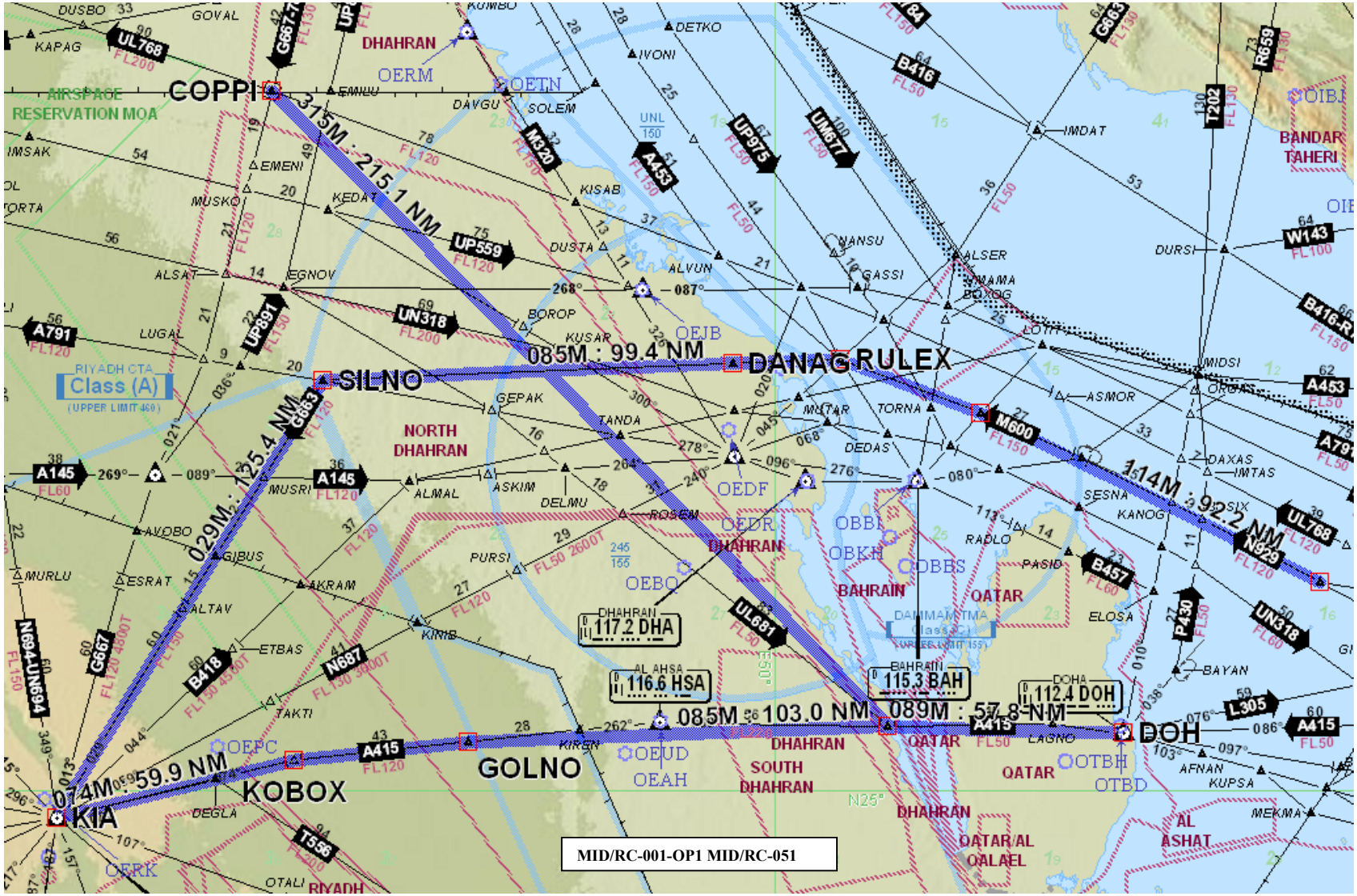


MID/RC-083

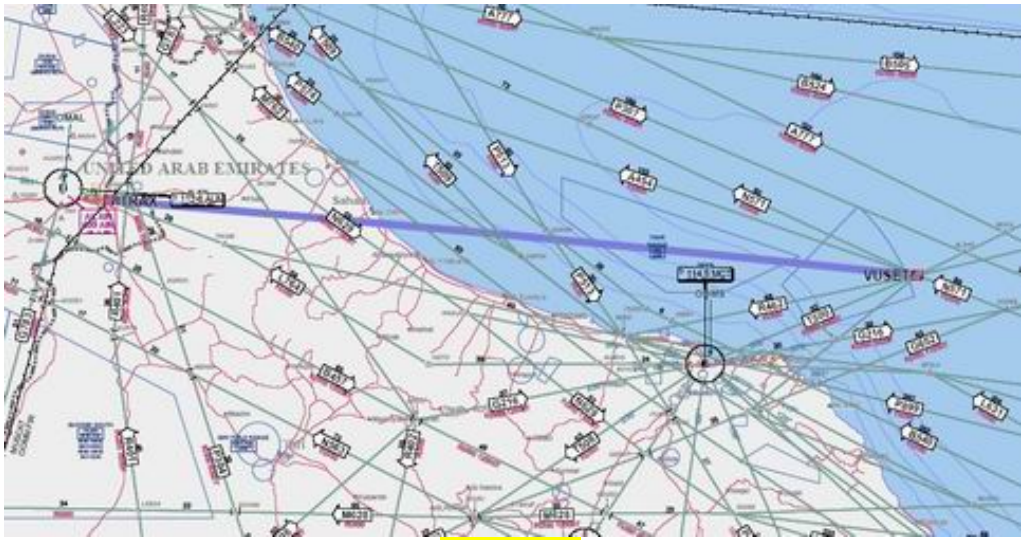
MID/RC-001 ***(Option 1)*** **MID/RC-051**	**ATS Route Name:** New AWY between SALWA-COPPI A415	**Entry-Exit:** SALWA-COPPI DOH - KIA	**Inter-Regional Cross Reference if any**		**Users Priority**	~~High~~ URGENT	**Originator of Proposal**	IATA
							Date of Proposal	ARN TF/1

Route Description	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken / Required**	**Deadline for each Action**
SALWA (N25 15.6 E050.30.8) – COPPI (N27 50.6 E047 44.0) This route is proposed as a one way northbound to cater for departure from Doha intersection point on "A791/G663", maybe "TANDA N26 27.1 E049 18.2" to allow traffic to transit for North African destinations	Qatar Bahrain Saudi Arabia		No progress reported		Bahrain has no objection . Qatar has no objection however will have time restriction of 15:00 to 03:00 UTC subject to concurrence with Saudi Arabia. Pending Saudi Arabia response Secretariat will make Amendment Proposal. Re submitted by Bahrain with indication of safety priority need. Saudi Arabia to investigate a timed route option. Still timed out route Same as RC 001 Whatever is related to A415 should be combined Still on	As soon as practical
Flight Level Band: FL200 – FL410						
Potential City Pairs: DOH to Western Europe/USA DOH to BEY, DAM, AMM DOH to North-Africa OMAA to GMMN, HECA, HSSS, OEJN, OERK						

Conclusions/Remarks	**Saving 88 miles, 10 daily flts, 34650 Kg of CO2 Daily**	**Last updated**	ATM SG/1 June 2014


COPPI
SILNO
DANAG
RULEX
GOLNO
KOBOX
KIA
DOH
DHAHRAN
OERM
OETN
OEJB
OEDF
OEDR
OEBQ
OEPC
OEUD
OEAH
OERK
OBBI
OBKH
OBBS
OTBH
OTBD
NORTH DHAHRAN
SOUTH DHAHRAN
BAHRAIN
QATAR
BANDAR TAHERI
AIRSPACE RESERVATION MOA
RIYADH CTA
Class (A)
(UPPER LIMIT 460)
DAMMAM CTA
(Class C)
315M : 215.1 NM
085M : 99.4 NM
029M : 125.4 NM
114M : 92.2 NM
074M : 59.9 NM
085M : 103.0 NM
089M : 57.8 NM
117.2 DHA
116.6 HSA
115.3 BAH
112.4 DOH
MID/RC-001-OP1 MID/RC-051

MID/RC-003	**ATS Route Name:** New AWY – VUSET to ITRAX	**Entry-Exit:** VUSET – ITRAX Muscat FIR	**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**
VUSET – "N23 55.7 E059 08.2 ITRAX – N24 12.8 E055 47.8		Oman		No progress reported	Not in the ANP		Not acceptable due to dense traffic crossings and goes through Danger Areas climbing descending traffic. To be differed indefinitely Differed for the future Similar to RC-013		TBD
Flight Level Band: FL290 – FL410									
Potential City Pairs: SGN, PEK, HKG, PVG, DEL, AMD, KHI, KIX, DAC, KTM - Doha									
Conclusions/Remarks							**Last updated**	ATM SG/1 June 2014	

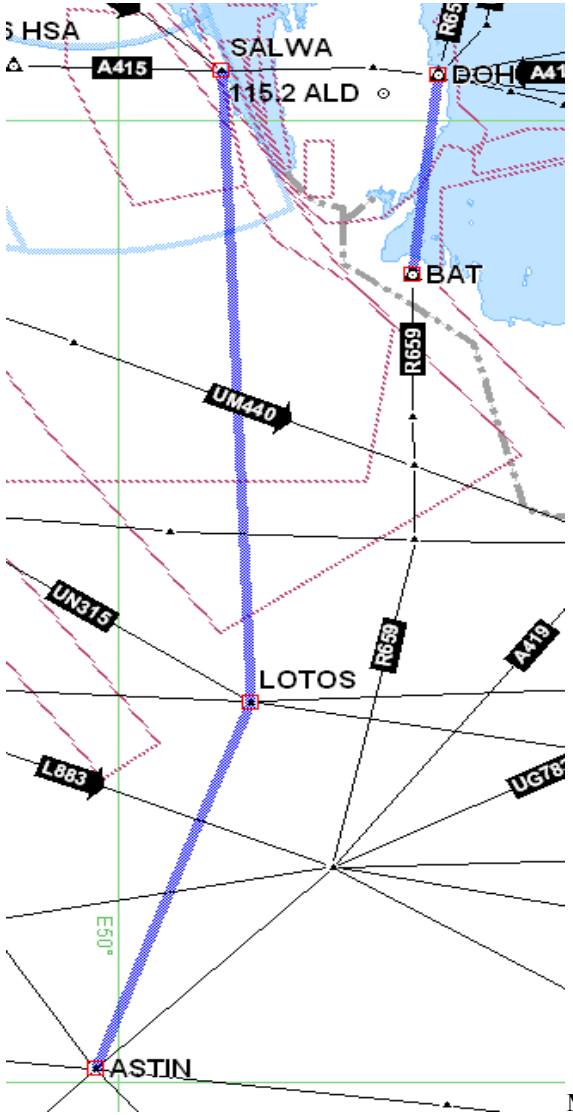


MID/RC-003

MID/RC-005 **Op 2** **MID/RC-049**	**ATS Route Name:** New AWY between SALWA-LOTUS-ASTIN SALWA KIPOM ASTIN DOH BAT	**Entry-Exit:** SALWA-LOTUS-ASTIN DOH-BAT	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	IATA
							Date of Proposal	ARN TF/1

Route Description	**States Concerned**	**Expected Implementation date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
Proposed new AWY would be two way. Alternatively, IATA would accept Salwa – (intersection point on Y100) – Y100 – LOTUS – New AWY – PURDA (N21 08.1 E051 03.5) – join with A419 SALWA (N25 15.6 E050.30.8) LOTUS (N22 00.0 E050 39.2) ASTIN (N20 04.2 E049 53.3) **Route Description** A direct segment on an airway that was compensated for by a dog leg B415 BUNDU V997 BAT	Bahrain Saudi Arabia Bahrain, Qatar, United Arab Emirates		No progress reported		- An alternate RNAV1 route was proposed waiting for UAE response. - Provided R659 implemented between DOH and BAT and RC049 - No change - • MID RC-005 / MID RC-049, UAE requested that due military issue to remove this route - Doha will be addressed during the next meeting reference removing this route. Keep as is until Qatar is present for discussions IT Expected implementation September 2011 as a timed out route - Ref RC 005	Immediate ~~Sept. 2008~~ June. 2009
Flight Level Band: FL180 – FL410						
Potential City Pairs: Doha – Eastern/ South Africa - Doha						

Conclusions/Remarks	Replacement proposal (Doha-Bundu-U997-R659). Approved for immediate implementation.		**Last updated**	ATM SG/1 June 2014

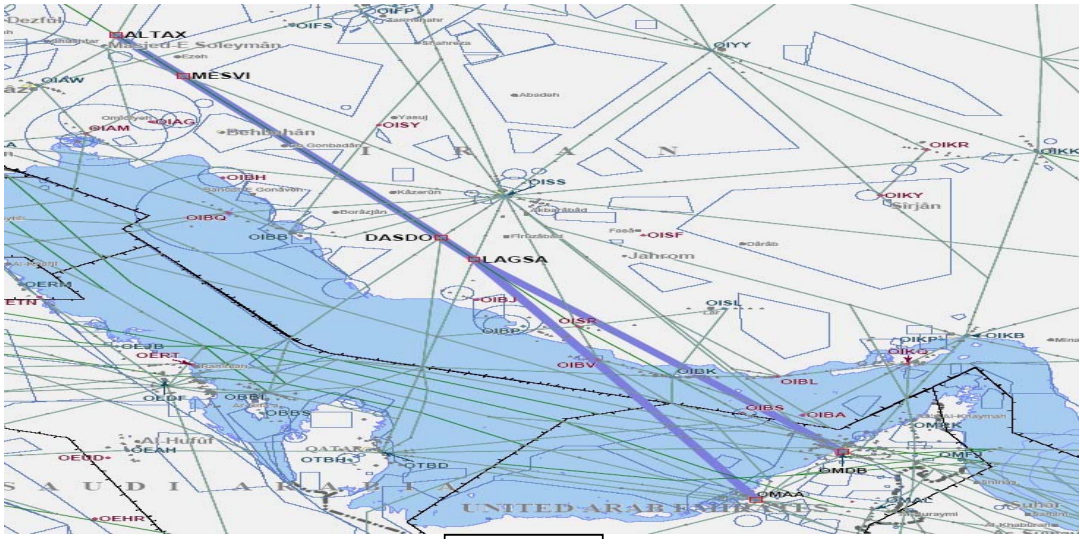


MID/RC-005 and 049

MID/RC-014	ATS Route Name: New Route	Entry-Exit: UAE to Iran and beyond	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
New, bi-directional route segments	Iran UAE		No progress reported		- Under consideration by Iran and UAE. States have no plan to implement. - Differed for the future. - Discussion going on - UAE requested to remove the route due to the complexity that will be created. Iran share UAE in this comment to remove the route	TBD
Flight Level Band: Upper Airspace						
Potential City Pairs: UAE to Iran and beyond (unlimited)						

Conclusions/Remarks			Last updated	ATM SG/1 June 2014



MID/RC-014

MID/RC-015	**ATS Route Name:** New airways between Sharjah and Tehran	**Entry-Exit:** LOPEG- DEBES	**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**
A new waypoint XXXXX to be created half way between KUMUN and PAPAR i.e. 37 NMs from either point. The old SIDs through LOPEG and DEBES will be re-instated with the difference that alter either point, traffic will proceed to XXXXX instead of PAPAR, distance LOPEG-XXXXX 23 NMs and DEBES-XXXXX 40 NMs				No progress reported			Already under consideration by Iran and UAE. States have no plan to implement. Differed for the future. UAE have no plan to implement and requested to remove this route		TBD
Flight Level Band:									
Potential City Pairs: Sharjah-Tehran									
Conclusions/Remarks							**Last updated**	ATM SG/1 June 2014	

MID/RC-018	ATS Route Name: New Route	Entry-Exit: Route from Jordan to CAI via TBA-W976	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
Route from Jordan to CAI via DATOK ~~TBA~~-W976	Jordan Egypt		New ATS route.		- Pending discussion between Egypt and Jordan	TBD
Flight Level Band:			No progress reported			
Potential City Pairs:						

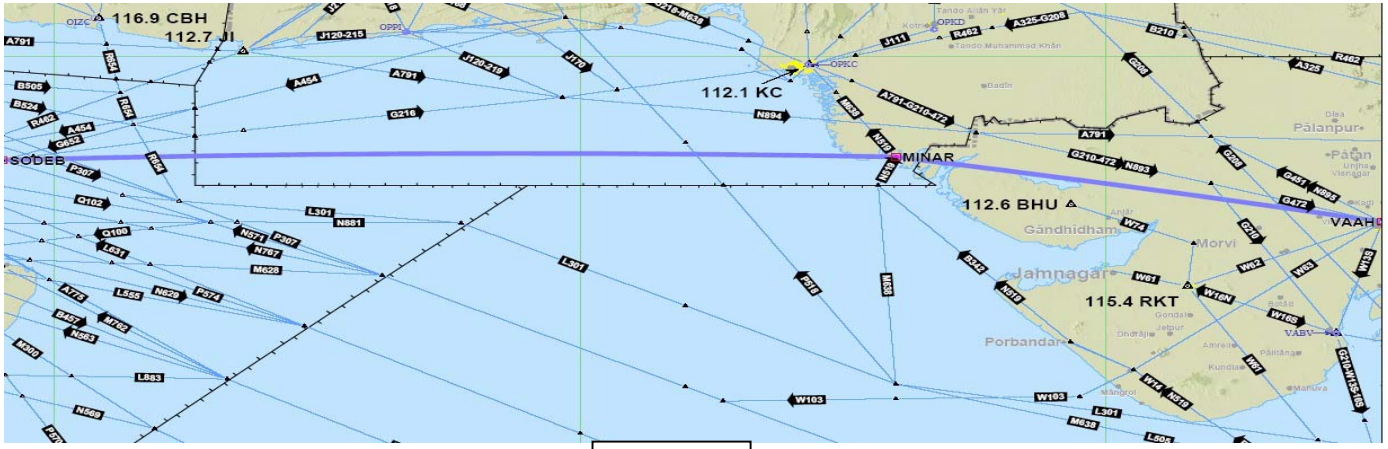
Conclusions/Remarks		Last updated	ATM SG/1 June 2014

MID/RC-018

MID/RC-020	**ATS Route Name:** Replacement of IATA Proposals (3) and (9).	**Entry-Exit:** TELEM-VAXIM and PRA-TELEM	**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**
SODEB to/from MINAR with 24 hours availability; thence MINAR to Ahmedabad or Pratapgarh (PRA)	Oman Pakistan Mumbai		No progress reported		- SODEB to/from MINAR with 24 hours availability. - MINAR to Ahmedabad or Pratapgarh (PRA). - To be relayed to Oman and APAC Regional Office, Bangkok. - Route was not supported by India . - Differed for the future.	
Flight Level Band:						
Potential City Pairs:						

Conclusions/Remarks	Proposed by Pakistan to replace IATA Original proposals (3) and (9) which have been removed from this Appendix		**Last updated**	ATM SG/1 June 2014

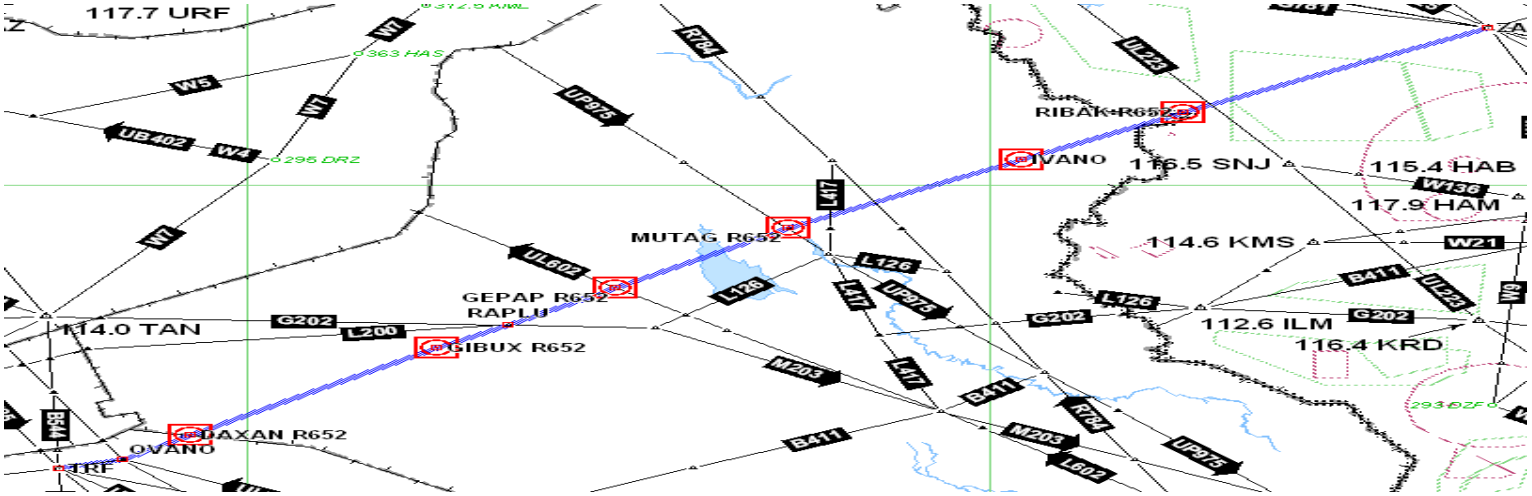


MID/RC-020

MID/RC-025	ATS Route Name: R652	Entry-Exit: METSA- ZAJ	Inter-Regional 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
DAVAS (351724N 0451235E) **RIBAK (354926N 0461808E)** **ZANJAN (ZAJ)**	Iraq Iran		1) New Route in the Baghdad (FIR) Connecting with Zanjan (ZAJ). 2) To Coordinate with Iran to connect RIBAK to ZAJ if acceptable	Available in ATS.1 Table. Implemented till DAVAS	Requires coordination with Iran and Iraq -	TBD
Flight Level Band: FL200-FL410						
Potential City Pairs:						

Conclusions/Remarks			Last updated	ATM SG/1 June 2014

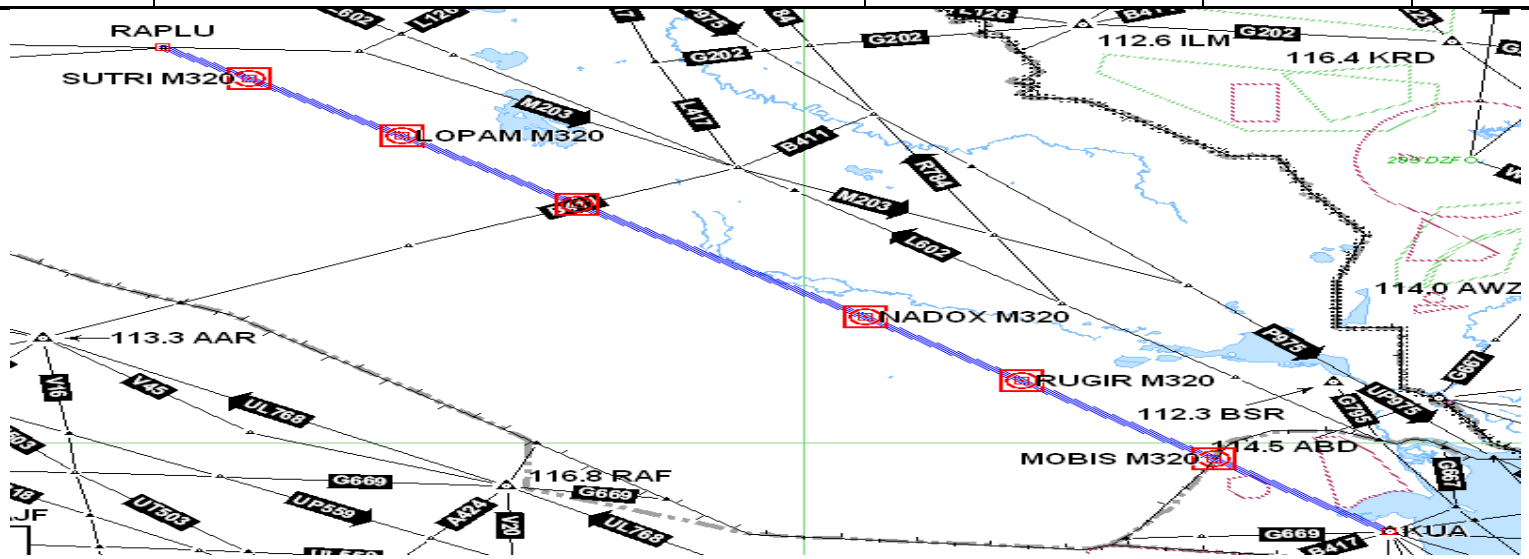


MID/RC-025

MID/RC-027	ATS Route Name: M320	Entry-Exit: KUA-RAPLU	Inter-Regional 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
KUA **MOBIS 295109N 0470457E** **RUGIR 303219N 0460618E** **NADOX 310505N 0451851E** **ELODI 320256N 0435126E** **LOPAM 323757N 0425806E** **SUTRI 330701N 0421128E** **RAPLU 332300N 0414530E**	Kuwait Iraq		1. Existing RNAV designator M320 from Kuwait proposed). 2. Points highlighted in yellow are new. 3. Coordination with Kuwait required of continuation of route within their airspace.	Available in ATS.1 Table In Kuwait FIR	1) Not supported by Kuwait at present. 2) Needs further studies. 3) differed for the future KUA – RAPLU needs to be implemented	March 2010
Flight Level Band: FL200-FL410						
Potential City Pairs:						

Conclusions/Remarks			Last updated	ATM SG/1 June 2014

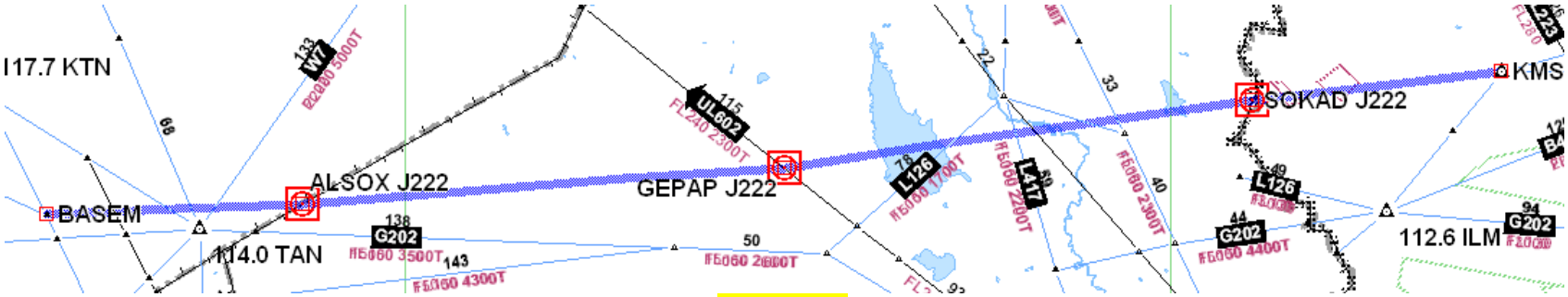


MID/RC-027

MID/RC-028	ATS Route Name: J222	Entry-Exit: BASEM-KMS	Inter-Regional 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
BASEM 333318N 0373906E **ALSOX 333700N 0392000N** **GEPAP 334906N 0422851E** **SOKAD 341051N 0453226E** **KMS KERMANSHAH**	Syria Iraq Iran		1. Points highlighted in yellow are new. 2. Coordination with Syria and Iran required for the continuation of route within their airspace. 3. New route in the Baghdad (FIR)	Not available in ATS.1 Table. Implemented in Syria Change of Route Designator Required	Points highlighted in yellow are new. - Not supported by Syria - ATS route J222 is in close proximity with ATS route UR785 that would cause traffic conflict - Iraq was asked to reconsider to join the ATS route with G202 and change the route designator. - Syria to review the proposal and will inform ICAO.	TBD
Flight Level Band: FL200-FL410			No progress reported			
Potential City Pairs:						

Conclusions/Remarks			Last updated	ATM SG/1 June 2014

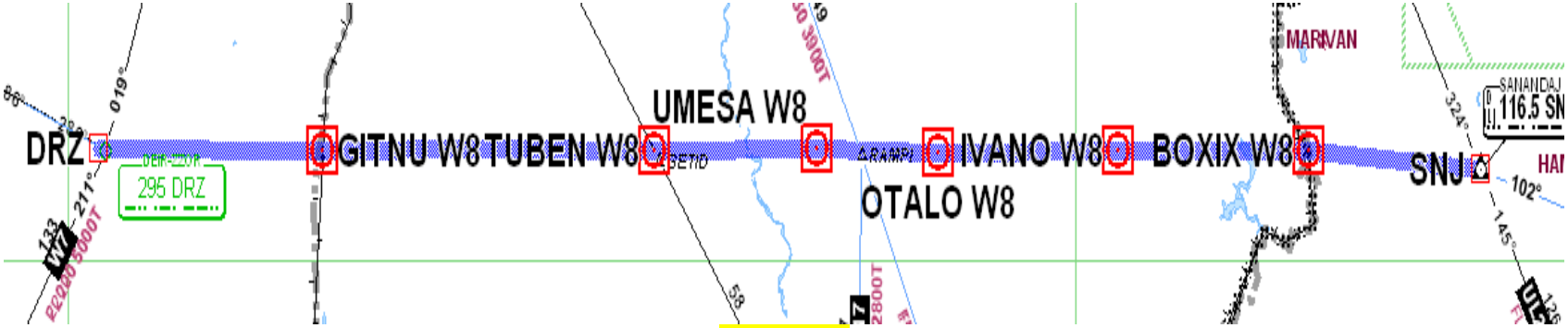


MID/RC-028

MID/RC-029	ATS Route Name: W8	Entry-Exit: GITNU-HAB	Inter-Regional 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
DRZ **GITNU 351724N 0411553E** **TUBEN 351724N 0425434E** **UMESA 351741N 0434307E** **OTALO 351700N 0441900E** **DAVAS 351724N 0451235E** **BOXIX 351724N 0460921E** **SNJ**	Syria Iraq Iran		1. Change route designator to regional RNAV route designator (**L, M, N or P requested**). 2. Points highlighted in yellow are new. 3. Coordination with Syria and Iran required for the continuation of route within their airspace. 4. New route in the Baghdad (FIR)		Points highlighted in yellow are new. - Syria requested additional time to examine the proposal for the establishment of the ATS route.	TBD
Flight Level Band: FL200-FL410			No progress reported			
Potential City Pairs:						

Conclusions/Remarks			Last updated	ATM SG/1 June 2014

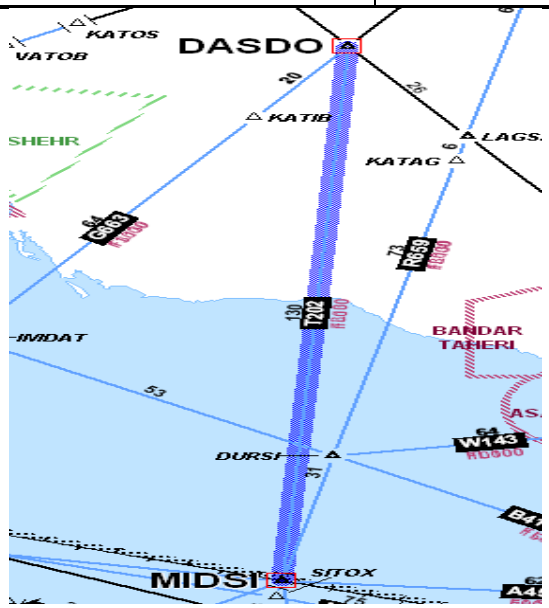


MID/RC-029

MID/RC-037	**ATS Route Name:** New Route	**Entry-Exit:** MIDSI - DASDO	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	Iran
							Date of Proposal	15 March 2010

Route Description	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
MIDSI 264142N 0515442E **DASDO 285118N 0500347E**	Bahrain Iran		MIDSI - DASDO No progress reported	Iran is requesting an RNAV Route Designator for the route to be included in the ANP	Another proposal put in by Bahrain and submitted to Iran Discussion complete Bahrain and Iran to Request Route designators and a proposal for amendment to be circulated once data is received by ICAO	Published by Iran as T202
Flight Level Band: FL 130 - UNL						
Potential City Pairs:						

Conclusions/Remarks		**Last updated**	ATM SG/1 June 2014

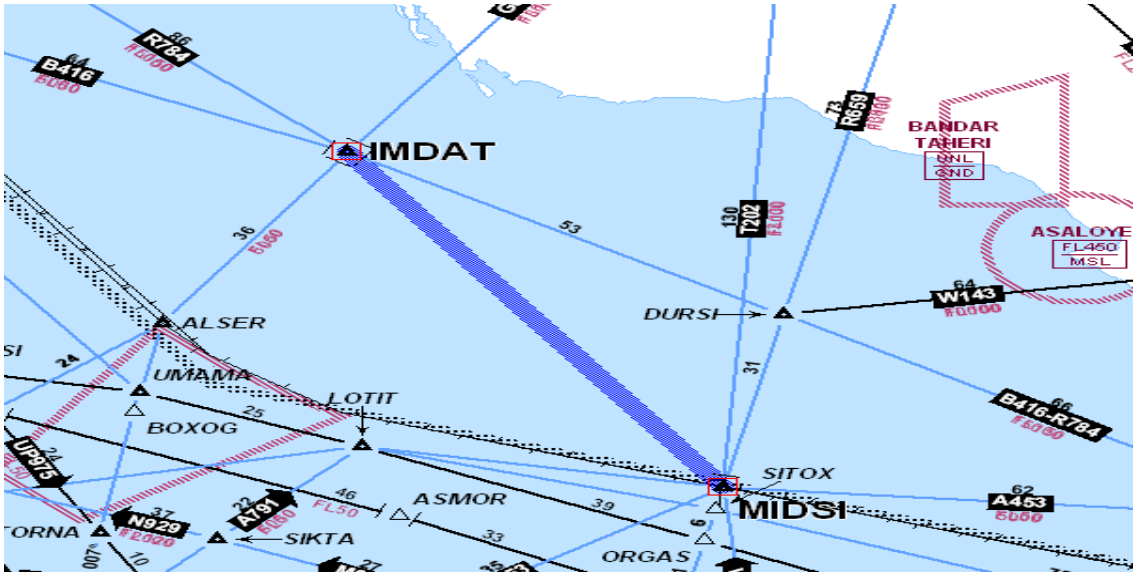


MID/RC - 037

MID/RC-038	**ATS Route Name:** New Route	**Entry-Exit:** IMDAT - MIDSI	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	Iran
							Date of Proposal	15 March 2010

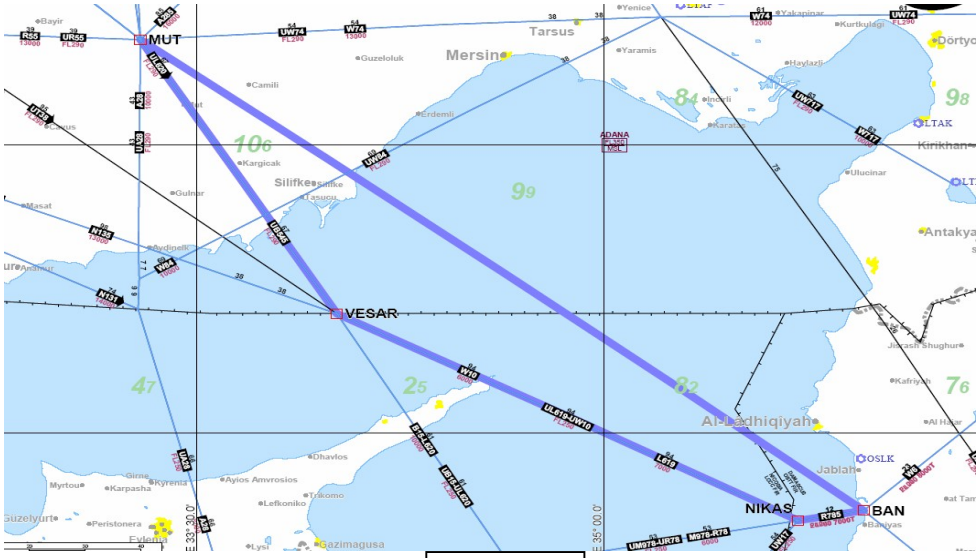
Route Description	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
IMDAT 274100N 0511100E **MIDSI 264142N 0515442E**	Bahrain Iran		IMDAT - MIDSI Not implemented	Not in the ANP. Iran is requesting an RNAV Route Designator for the route to be included in the ANP	Discussion complete Bahrain and Iran to Request Route designators and a proposal for amendment to be circulated once data is received by ICAO	(TBD)
Flight Level Band:			No progress reported			
Potential City Pairs:						

Conclusions/Remarks		**Last updated**	ATM SG/1 June 2014



MID/RC - 038

MID/RC-048	**ATS Route Name:** New Route	**Entry-Exit:** MUT in Turkey to BAN in Syria	**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**
		Cyprus, Syria, Turkey		No progress reported			IATA to provide further details Not From IATA but from Europe		
Flight Level Band:									
Potential City Pairs: OBBI, OERK, OMAA, OMDB, OSDI, OTBD to LBSF, LGAV, LROP, LTAC, LTBA (Arabian Peninsula and Syria to Greece, Turkey, Black Sea area)									
Conclusions/Remarks	**Saves 10NM per flight**						**Last updated**	ATM SG/1 June 2014	

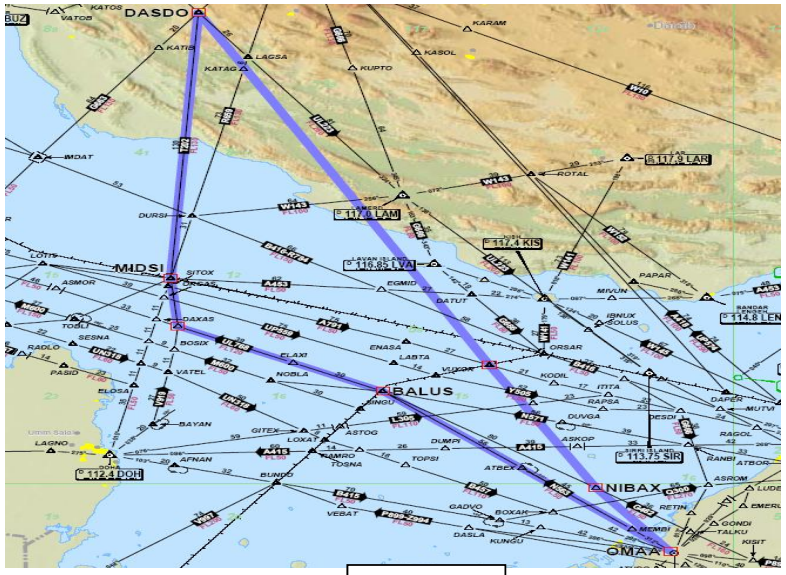


MID/RC-048

MID/RC-050	**ATS Route Name:** New Route	**Entry-Exit:** ADV / DASDO	**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**
A northbound airway that will avoid a dog leg via DARAX or MIDSI.	Bahrain Iran UAE		No progress reported		IATA to provide further details UAE stated clearly that there is no plan or intentions to implement this route	
Flight Level Band: Upper						
Potential City Pairs: OMAA to Iran, Europe & North America						

Conclusions/Remarks	Saving 39 miles, 20 flts/day, 48 Tons of CO2 daily		**Last updated**	ATM SG/1 June 2014

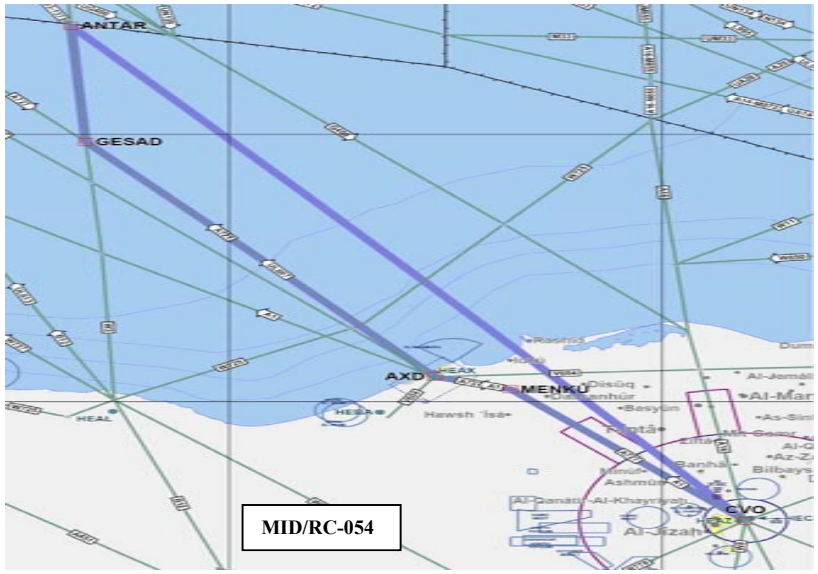


MID/RC-050

MID/RC-054	**ATS Route Name:** New Route	**Entry-Exit:** CVO-ANTAR	**Inter-Regional Cross Reference if any**		**Users Priority**	**Originator of Proposal**	IATA
						Date of Proposal	ARN TF/2

Route Description Cairo TO ANTAR	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken / Required**	**Deadline for each Action**
	Egypt		No progress reported		Not much Traffic on this route Military issues Differed for the future No change	
Flight Level Band: Upper						
Potential City Pairs: HECA and Arabian Peninsula to Europe						

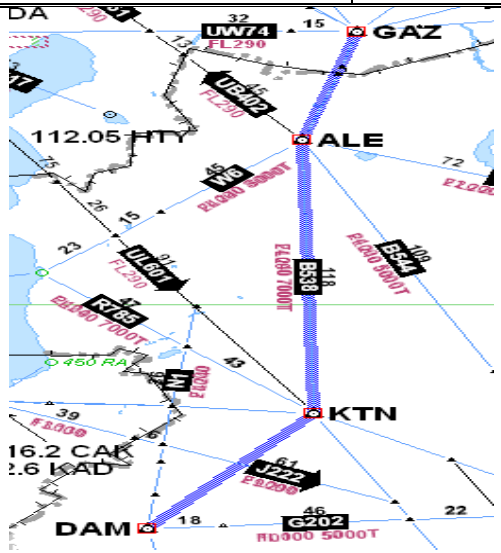
Conclusions/Remarks	Saves 13 minutes		**Last updated**	ATM SG/1 June 2014



MID/RC-062 ***(ex B538)***	**ATS Route Name:** New Route	**Entry-Exit:** GAZIANTEP DAMASCUS	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	IATA
							Date of Proposal	MIDANPIRG/10

Route Description	**States Concerned**	**Expected Implementation date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
(GAZIANTEP) ALEPPO KARIATAIN DAMASCUS	Syria		GAZIANTEP – ALEPPO Established as (B544) ALEPPO – KARIATAIN Established as (B538) KARIATAIN – DAMASCUS not established		No updates	
Flight Level Band:			No progress reported			
Potential City Pairs:						

Conclusions/Remarks	Segment GAZIANTEP-ALEPPO implemented (B544)		**Last updated**	ATM SG/1 June 2014

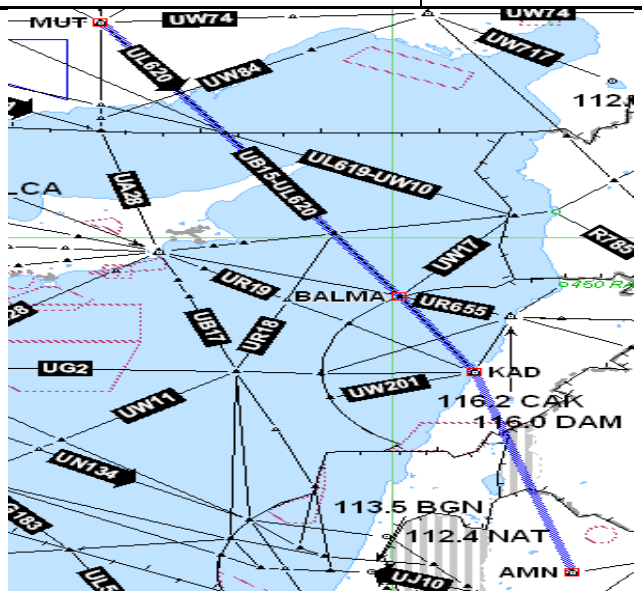


MID/RC-062

MID/RC-063 ***(ex B545)***	**ATS Route Name:** New Route	**Entry-Exit:** BALMA-AMMAN	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	IATA
							Date of Proposal	MIDANPIRG/10

Route Description	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
(MUT) BALMA 3428.9N 035 3.0E KHALDEH AMMAN	Amman Beirut Ankara		MUT – BALMA – KAHLDE Implemented as **(UB15/UL620)** KHALDE – AMMAN not implemented		Not feasible currently	
Flight Level Band:			No progress reported			
Potential City Pairs:						

Conclusions/Remarks		**Last updated**	ATM SG/1 June 2014

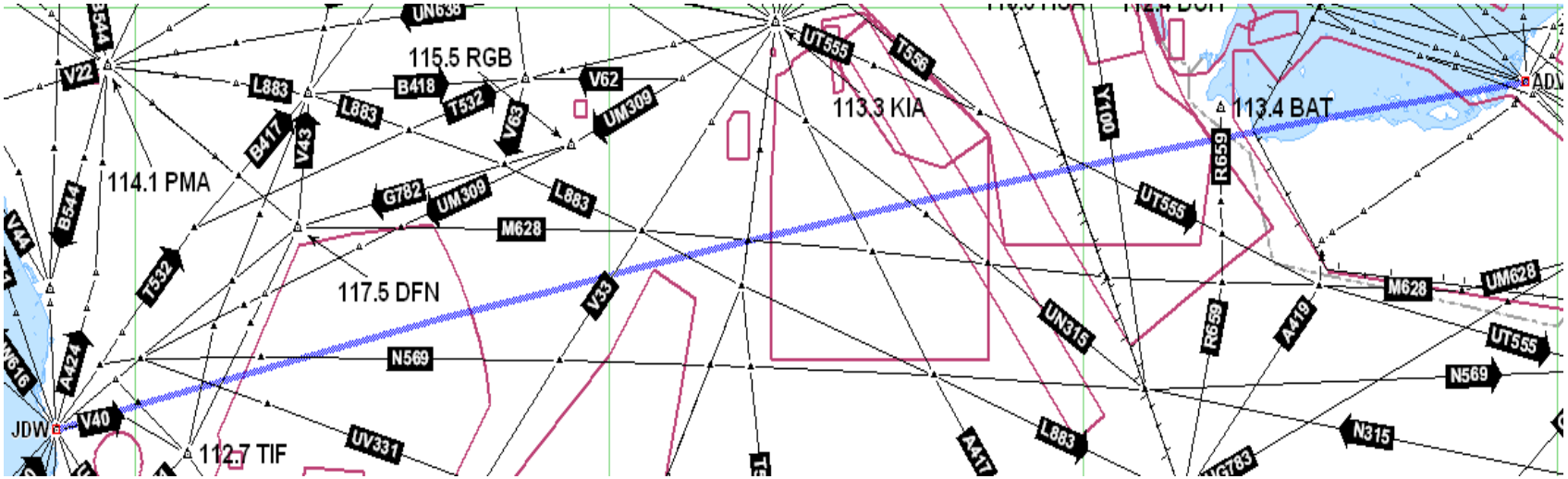


MID/RC-063

MID/RC-064 ***(ex G660)***	**ATS Route Name:** New Route	**Entry-Exit:** JDW-ADV	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	IATA	
							Date of Proposal	MIDANPIRG/10	

Route Description	**States Concerned**	**Expected Implementation date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
KING ABDULAZIZ ABU DHABI * Note3 (OE, OM)	Saudi Arabia Bahrain UAE		No progress reported		No change to status	
Flight Level Band:						
Potential City Pairs:						

Conclusions/Remarks	Military restrictions		**Last updated**	ATM SG/1 June 2014

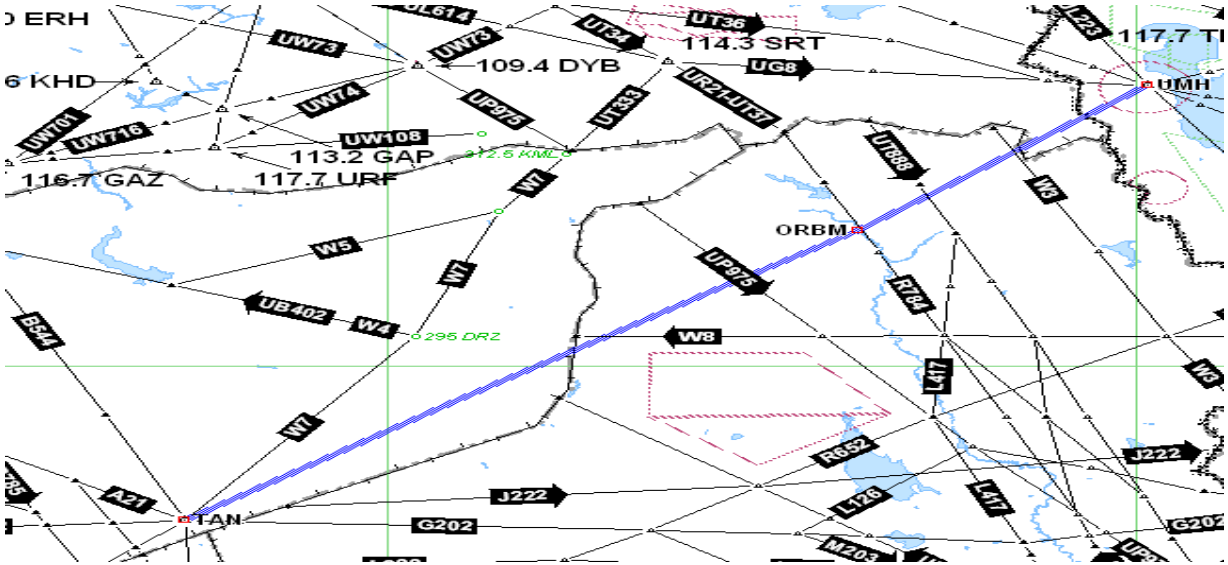


MID/RC-064

MID/RC-067 *(ex G671)*	**ATS Route Name:**	**Entry-Exit:** TANF-UMH	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	IATA
							Date of Proposal	MIDANPIRG/10

Route Description	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
TANF **MOSUL** **UMH**	Syria Iraq Iran		No progress reported		No update	
Flight Level Band:						
Potential City Pairs:						

Conclusions/Remarks		**Last updated**	ATM SG/1 June 2014

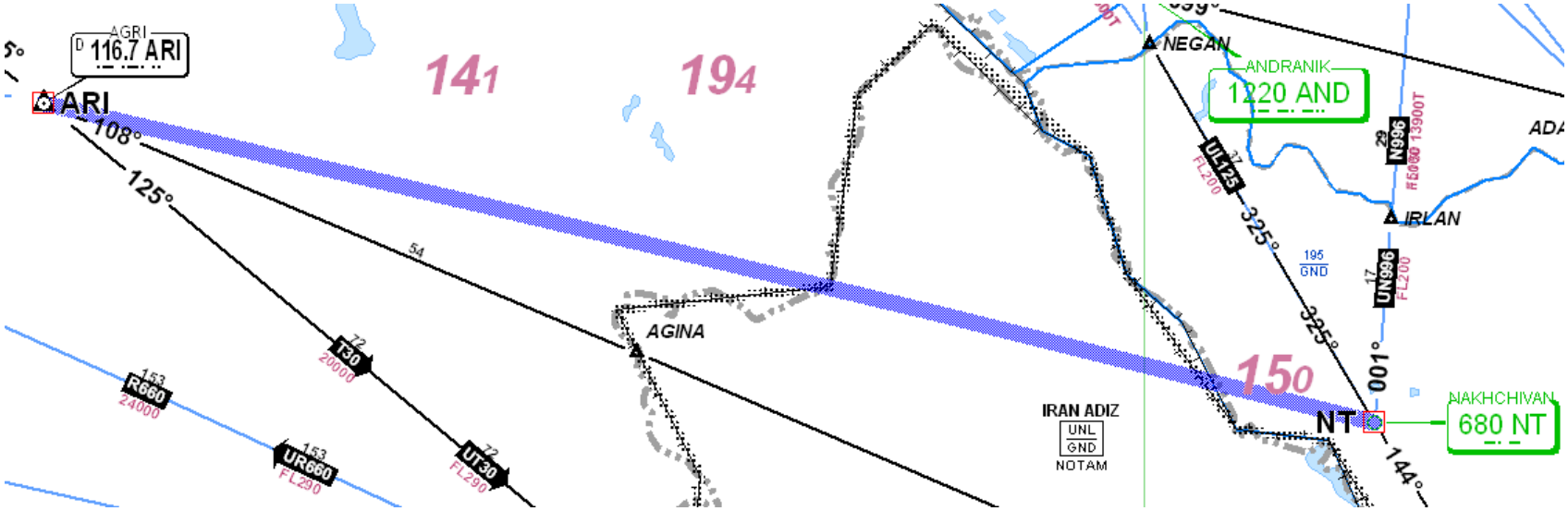


MID/RC-067

MID/RC-069	ATS Route Name: New Route	Entry-Exit: ARI (Agri) NT (Nakhchivan)	Inter-Regional Cross Reference if any		Users Priority	High	Originator of Proposal	Turkey (2002)
							Date of Proposal	MIDANPIRG/10

Route Description	States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action
ARI (Agri) AAAAA (TUR/IRN BDRY) BBBBB (IRN/AZE BDRY) NT (Nakhchivan)	Turkia Iran Yerevan (AZE)		No progress reported		No update	
Flight Level Band:						
Potential City Pairs:						

Conclusions/Remarks			Last updated	ATM SG/1 June 2014



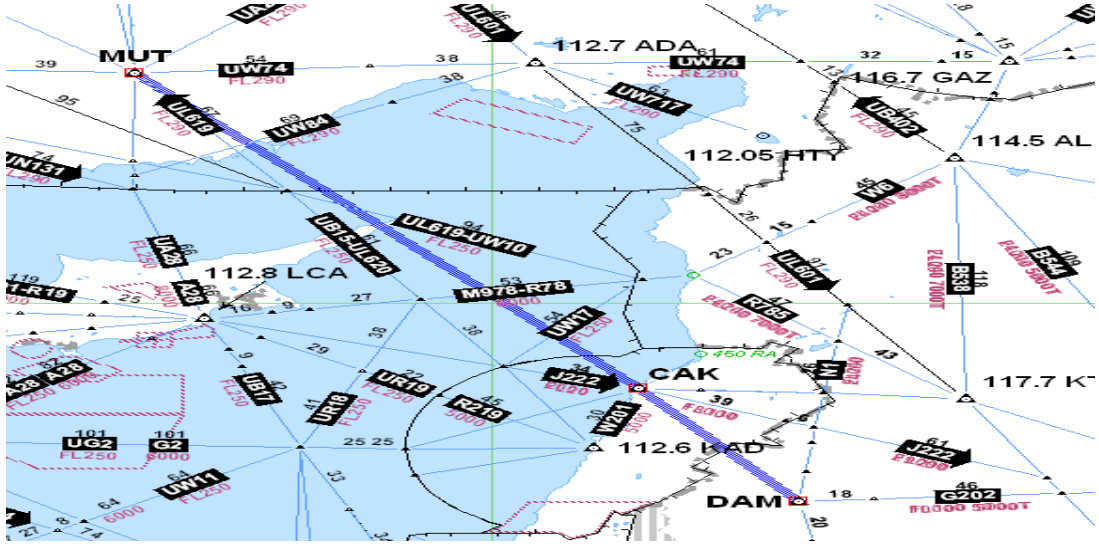
MID/RC-069

MID/RC-071	**ATS Route Name:** New route	**Entry-Exit:** DELMA-A145	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	IATA	
							Date of Proposal	ARN TF/1	
Route Description		**States Concerned**	**Expected Implementation date**	**Implementation Status**	**ANP Status**		**Action Taken/Required**		**Deadline for each Action**
From DELMA in the CAI FIR a route to point DDDDD on B544 18NMs south of UA791 (SOBAS) and crosses: CAI-JED FIR Boundary at AAAAA, 33 NMs south of KITOT V54 at BBBBB, 13 NMs south of TBK, W334 at CCCCC, 31 NMs south-east of TBK from DDDDD to FFFFF on A424 18 NMs south of UA791(HIL) and crosses: A788 at EEEEE 31 NMs south-west of HIL from FFFFFto MGA on A145 ad crosses: G662 at GGGGG, 47 NMs south-east of HIL V20 at HHHHH, 24 NMs south of NALBU B417 at IIIII, 20 NMs south-west of RARLO W333 at JJJJJ, 10 NMs south-west of SERPU UT503 at KKKKK, 9 NMs south-east of SERPU, and W23 at LLLLL, 36 NMs south of SIBLI from MGA, the route continues normally on A145.		Egypt Saudi Arabia		No progress reported			- Egypt and Saudi Arabia will consider the proposal for future. Parallel to A791/A145 No updates		
Flight Level Band: Upper Airspace									
Potential City Pairs:									
Conclusions/Remarks							**Last updated**	ATM SG/1 June 2014	

MID/RC-073 *(ex B410)*	**ATS Route Name:** New route	**Entry-Exit:** MUT – DAMASCUS	**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**
MUT **CHEKA (CAK)** *** Note 3 (OS)** **DAMASCUS (DAM)**	Turkey Lebanon Syria					
Flight Level Band: Upper Airspace			No progress reported			
Potential City Pairs:						

Conclusions/Remarks			**Last updated**	ATM SG/1 June 2014

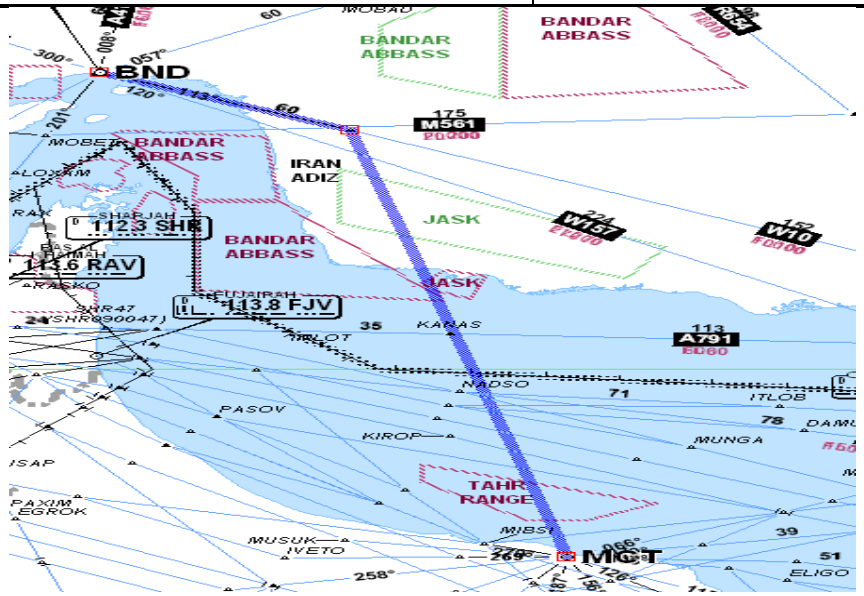


MID/RC-073

MID/RC-074 ***(ex R658)***	**ATS Route Name:** New route	**Entry-Exit:** MUSCAT - BANDAR ABBAS	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	IATA
							Date of Proposal	ARN TF/1

Route Description	**States Concerned**	**Expected Implementation date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
Muscat (MCT) **MELMI 2647.0N 05723.0E** **BANDAR ABBAS (BND)**	Iran Oman				Differed for the future	
Flight Level Band: Upper Airspace			No progress reported			
Potential City Pairs:						

Conclusions/Remarks		**Last updated**	ATM SG/1 June 2014



MID/RC-074

MID/RC-077	**ATS Route Name:** New route	**Entry-Exit:** BINKO - RASNO - LOSUL	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	IATA
							Date of Proposal	ARN TF/2

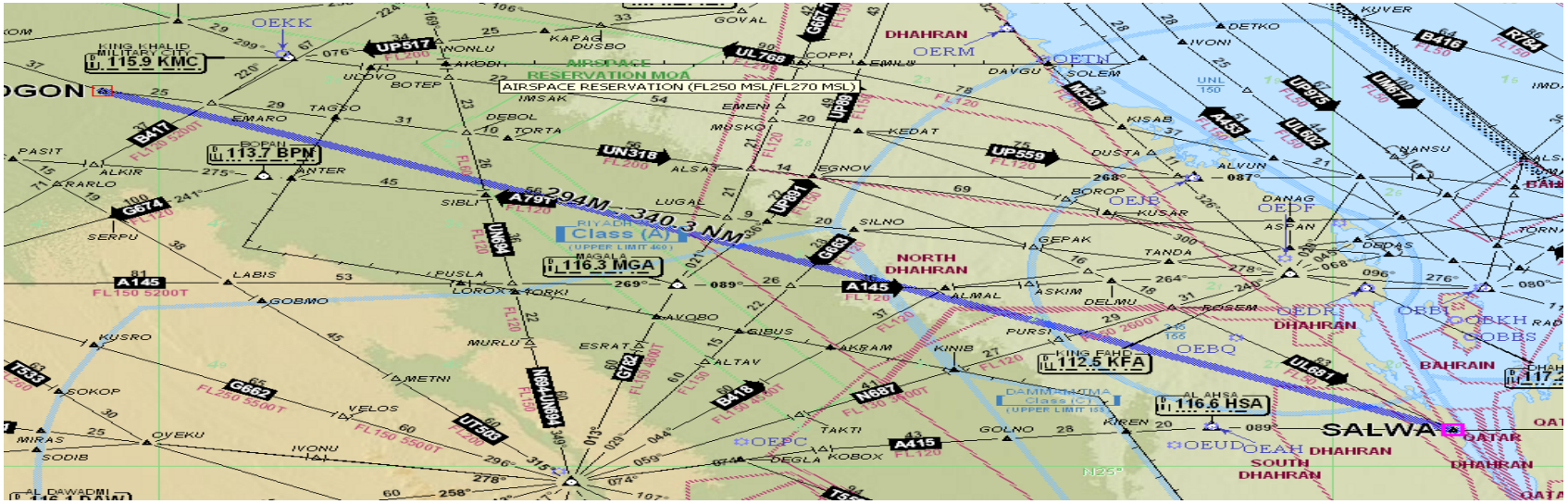
Route Description	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
BINKO **RASNO** **LOSUL**	Egypt Lybia Malta				Egypt has no objection to establish the route as Uni-directional	
Flight Level Band: Upper Airspace			No progress reported			
Potential City Pairs:						

Conclusions/Remarks		**Last updated**	ATM SG/1 June 2014

MID/RC-079	**ATS Route Name:** New Route	**Entry-Exit:** SALWA - MOGON	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	Qatar Airways
							Date of Proposal	17-May-2011

Route Description	**States Concerned**	**Expected Impl. date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
SALWA 2515.6N 05030.8E MOGON 2738.8N 04445.9E	Bahrain Saudi Arabia		No progress reported		To cater for arrival traffic from the West - which would also allow A145 traffic to use this proposed segment	
Flight Level Band:						
Potential City Pairs:						

Conclusions/Remarks	**Saves 11NM**		**Last updated**	ATM SG/1 June 2014



MID/RC-079

MID/RC-080	**ATS Route Name:** New Route	**Entry-Exit:** BUSRA - KTN	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	ICAO EUR/NAT
							Date of Proposal	17 May 2011

Route Description	**States Concerned**	**Expected Implementation date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
BUSRA 322000N 0363700E KARIATAIN (KTN)	Syria		No progress reported	Not in ANP	State letter to be sent to Syria for input. Awaiting final approval for implementation	
Flight Level Band:						
Potential City Pairs: HEGN - UUDD						

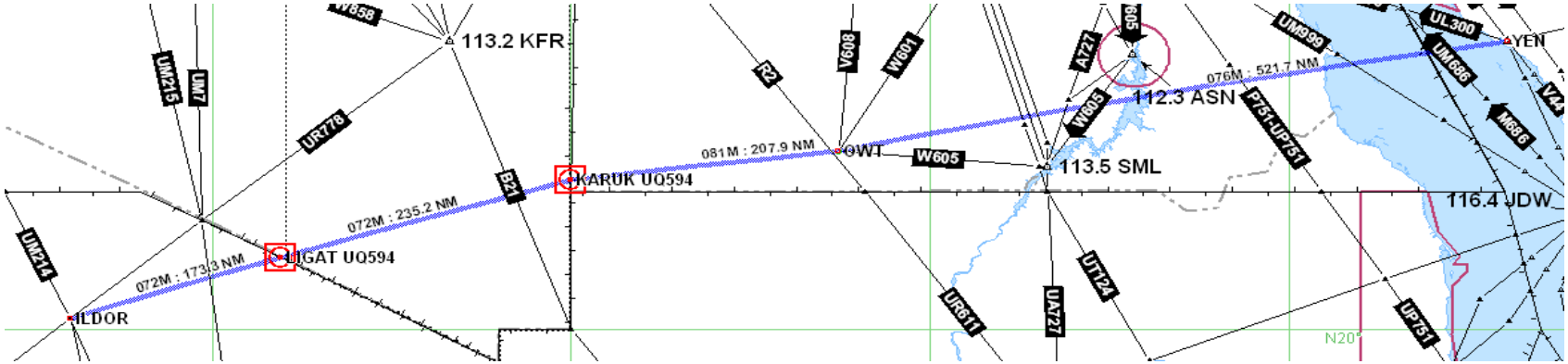
Conclusions/Remarks	**Shortens the distance by 85NM.**		**Last updated**	ATM SG/1 June 2014

MID/RC-080

MID/RC-086	ATS Route Name: New Route UQ594; Bidirectional	Entry-Exit: ROB – OWT - YEN	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
ILDOR 20 09 37N 018 01 19E KARUK 221002.11N 0250000E OWT YEN	Libya Egypt Saudi Arabia			No progress reported		Needs to be discussed with Libya; Needs to be discussed with Egypt; FIR crossing in Khartoum depending on flow? FIR crossing at TONBA to support Westbound infrastructure t	TBD
Flight Level Band:							
Potential City Pairs:							

Conclusions/Remarks			Last updated	ATM SG/1 June 2014

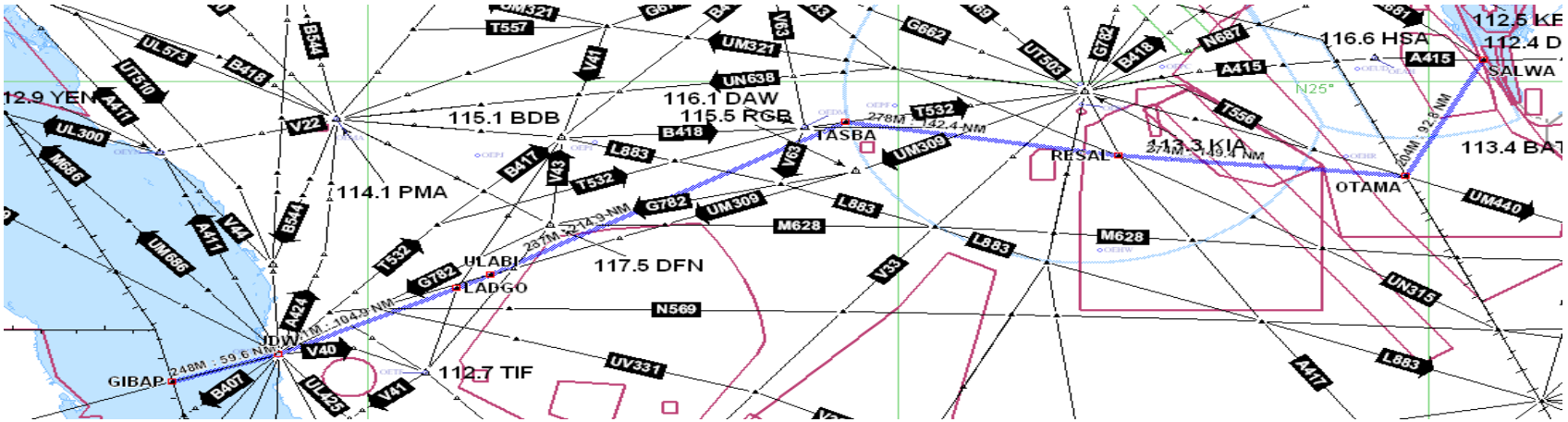


MID/RC - 086

MID/RC-089	ATS Route Name: New Route UQ591; Eastbound	Entry-Exit: SALWA – OTAMA – TASBA – ULABI - GIPAB	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
SALWA 251538N 0503048E OTAMA 2351 47N 0494707E RESAL 240649N 0470427E TASBA 24 30 59N 044 30 28E ULABI 224022N 0410922E JDW GIBAP 353659N 0543055E	Bahrain Saudi Arabia			No progress reported		- Timed Route To check with B145 To be changed after the realignment of Bahrain and Jeddah FIRs	TBD
Flight Level Band:							
Potential City Pairs:							

Conclusions/Remarks			Last updated	ATM SG/1 June 2014

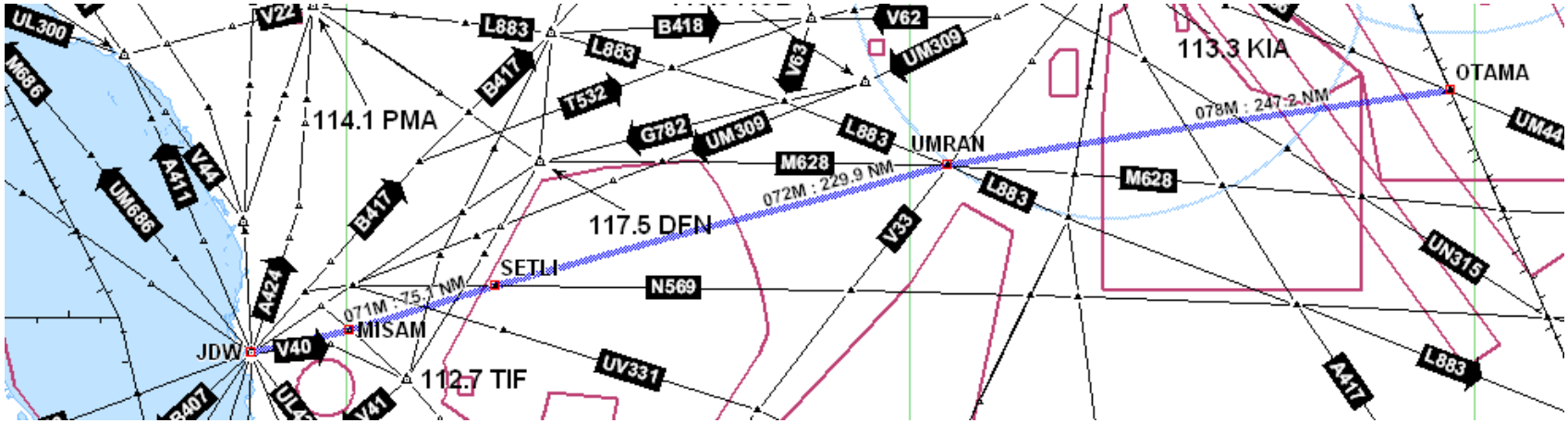


MID/RC - 089

MID/RC-090	**ATS Route Name:** New Route UQ588; Eastbound	**Entry-Exit:** JDW - UMRAN OTAMA	**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**
JDW MISAM 215415N 0400153E SETLI 221608N 0411924E UMRAN 0411924N 0452023E OTAMA 2351 47N 0494707E	Saudi Arabia			No progress reported		Timed Route To be changed after the realignment of Bahrain and Jeddah FIRs	 TBD
Flight Level Band:							
Potential City Pairs:							

Conclusions/Remarks			**Last updated**	ATM SG/1 June 2014



MID/RC - 090

MID/RC-091	ATS Route Name: New Route UQ587; Bidirectional	Entry-Exit: OTAMA – KARIN	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 Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action
OTAMA 2351 47N 0494707E KARIN 2422.7N 05201.6E	Saudi Arabia Bahrain			No progress reported		Note Point KARIN is duplicate 5LNC To be changed after the realignment of Bahrain and Jeddah FIRs	TBD
Flight Level Band:							
Potential City Pairs:							

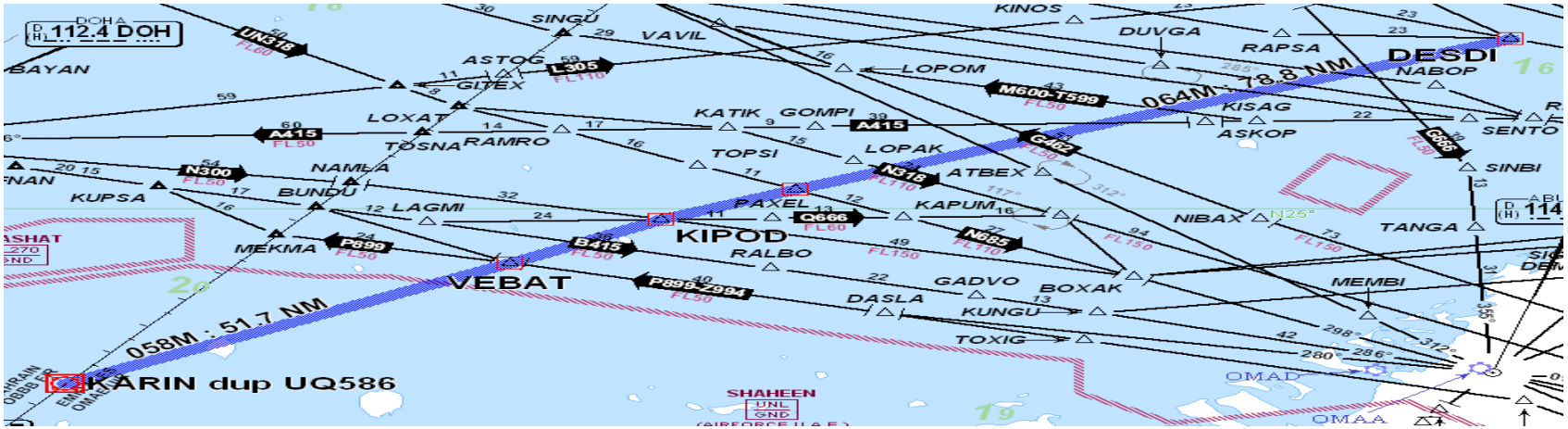
Conclusions/Remarks			Last updated	ATM SG/1 June 2014

MID/RC - 091

MID/RC-092	ATS Route Name: New Route UQ586; Eastbound	Entry-Exit: KARIN - DESDI	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
KARIN 2422.7N 05201.6E VEBAT 244830N 0525100E KIPOD 245744N 0530756E NAGRA 250407N 0532246E DESDI 253603N 0544230E	Bahrain UAE			No progress reported		Note Point KARIN is duplicate 5LNC	TBD
Flight Level Band:							
Potential City Pairs:							

Conclusions/Remarks			Last updated	ATM SG/1 June 2014

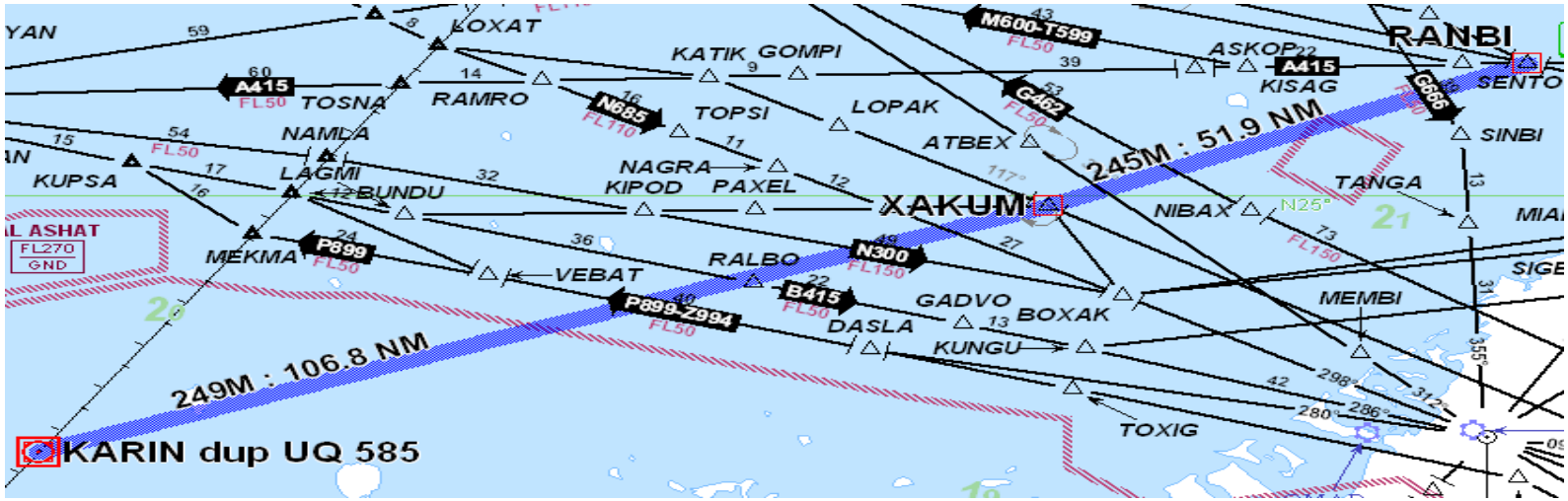


MID/RC – 092

MID/RC-093	ATS Route Name: New Route UQ585; Westbound	Entry-Exit: RANBI - KARIN	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 Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action
RANBI 251908N 0544500E XAKUM 245833N 0535222E KARIN 2422.7N 05201.6E	Bahrain UAE			No progress reported		Note Point KARIN is duplicate 5LNC	TBD
Flight Level Band:							
Potential City Pairs:							

Conclusions/Remarks			Last updated	ATM SG/1 June 2014

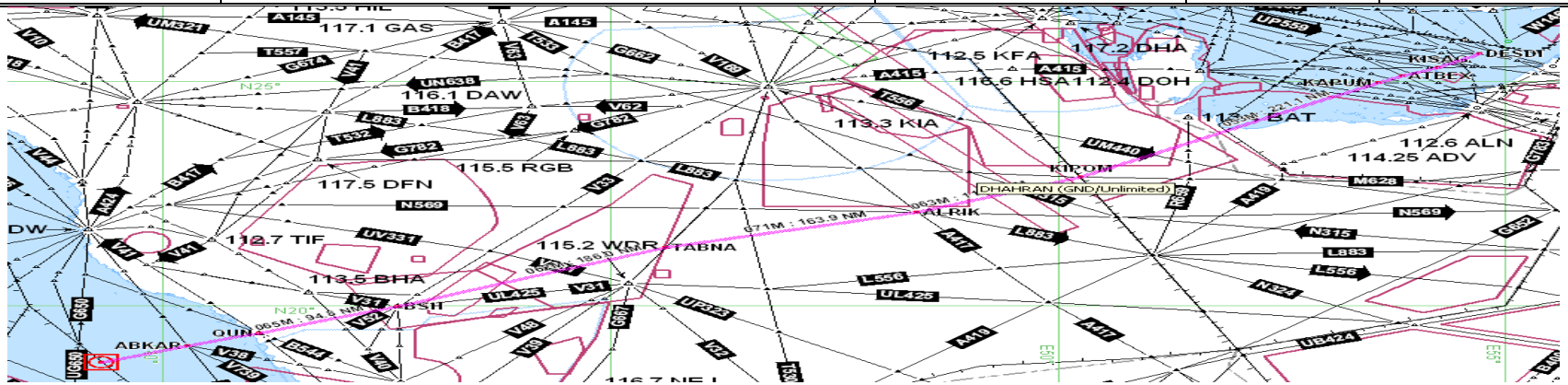


MID/RC - 093

MID/RC-094	ATS Route Name: New Route proposed Eastbound	Entry-Exit: TOKAR - DESDI	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 Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action
TOKAR 180624N 0374812E OTEMA 184200N 0391900E ABKAR 190511N 0401612E QUN BSH TABNA 211842.3N 0453652.6E ALRIK 220631N 0482535E KIPOM 225316N 0501518E KAPUM 245815N 0533450E KISAG 251834N 0541408E DESDI 253603N 0544230E	Saudi Arabia Bahrain UAE			No progress reported		-This route was initially agreed to as Eastbound it was deleted afterwards; and is to be discussed separately	TBD
Flight Level Band:							
Potential City Pairs:							

Conclusions/Remarks			Last updated	ATM SG/1 June 2014

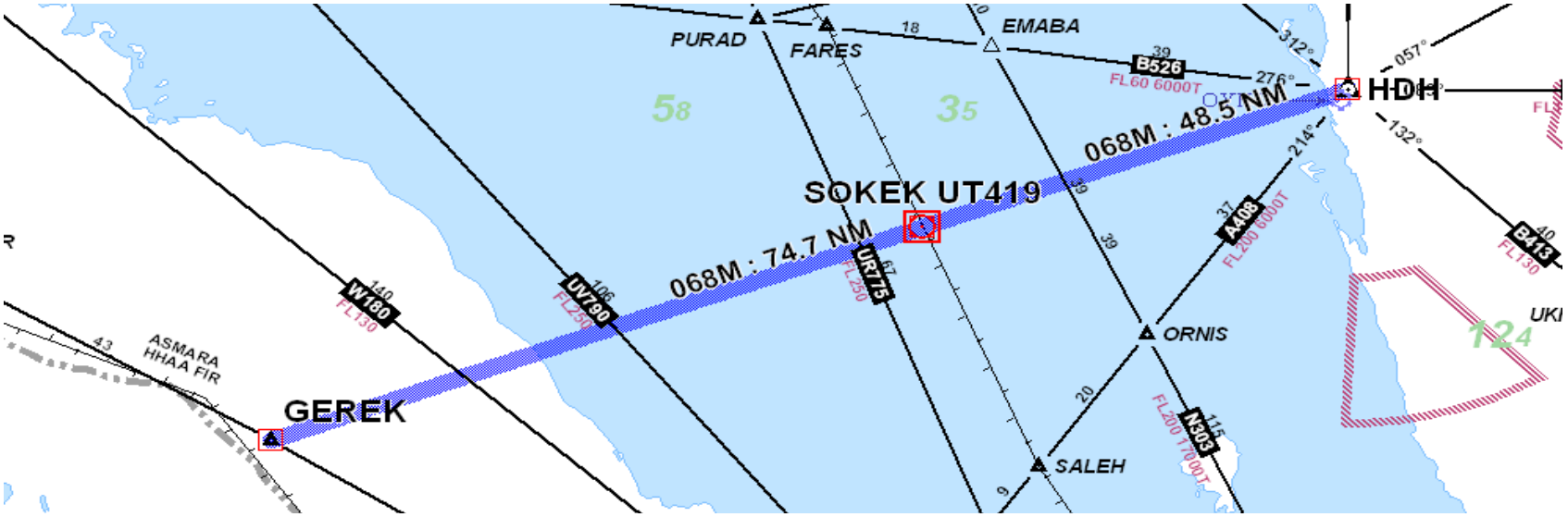


MID/RC - 094

MID/RC-095	ATS Route Name: New Route UT419; Bidirectional	Entry-Exit: GEREK – HDT – A419	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
GEREK 140318N 0410000 E SOKEK 142932.45N 0421211.63E HDH	Yemen			No progress reported		Needs to be coordinated with Yemen	TBD
Flight Level Band:							
Potential City Pairs:							

Conclusions/Remarks			Last updated	ATM SG/1 June 2014

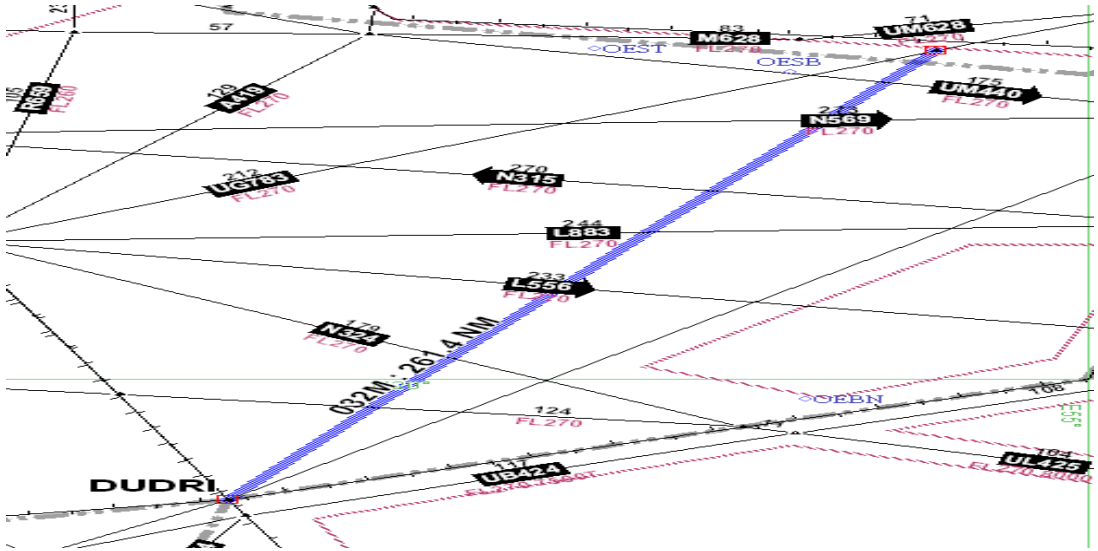


MID/RC - 095

MID/RC-096	**ATS Route Name:** New Route UQ578; Bidirectional	**Entry-Exit:** DUDRI - TANSU	**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**
DUDRI 190000N 0520000E TANSU 224136N 0542828E	Bahrain UAE			No progress reported		Level Restriction FL300/320	TBD
Flight Level Band:							
Potential City Pairs:							

Conclusions/Remarks			**Last updated**	ATM SG/1 June 2014



MID/RC - 096

<table>
<tr><td>MID/RC-098</td><td colspan="2">ATS Route Name: New Route CVO-W8-AST-W3-KHG-W601-OWT-R2-ATMUL-ASKOL</td><td>Entry-Exit: CVO - ASKOL</td><td colspan="2">Inter-Regional Cross Reference if any</td><td>Users Priority</td><td>High</td><td colspan="2">Originator of Proposal</td><td colspan="2">IATA</td></tr>
<tr><td colspan="8"></td><td colspan="2">Date of Proposal</td><td colspan="2"></td></tr>
<tr><td colspan="2">Route Description</td><td>States Concerned</td><td>Expected Implemen-tation date</td><td colspan="2">Implementation Status</td><td colspan="2">ANP Status</td><td colspan="2">Action Taken/Required</td><td>Deadline for each Action</td></tr>
<tr><td>CVO
AST
KHG
OWT
ATMUL
ASKOL</td><td>Egypt

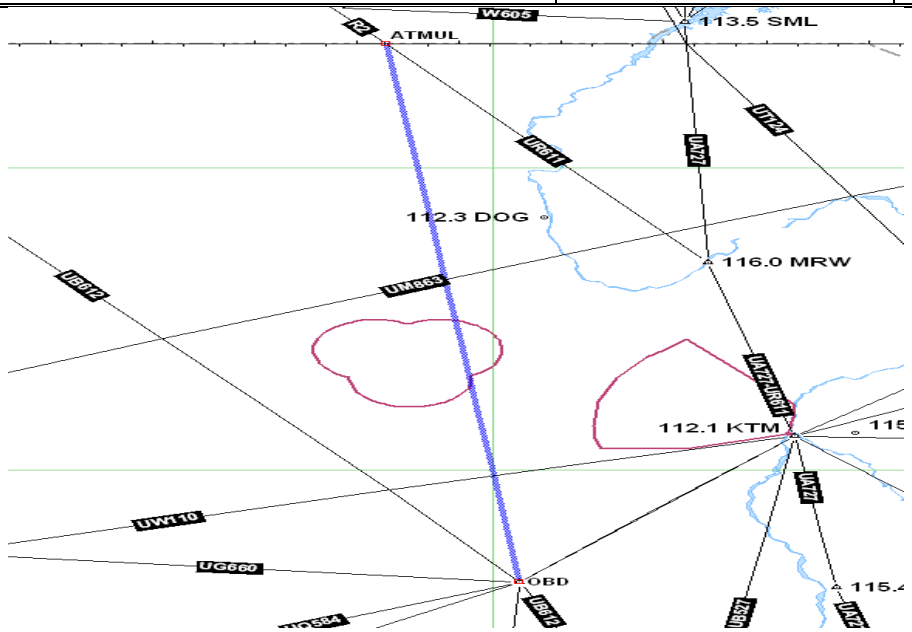
Sudan</td><td></td><td rowspan="4"></td><td colspan="2">No progress reported</td><td colspan="2" rowspan="4"></td><td colspan="2">Egypt agreed in principal to the re-designation of domestic ATS route W8 and W601 to an RNAV route designator and will confirm agreement after consultation with management
No change

Sudan has no objection</td><td>TBD</td></tr>
<tr><td colspan="2">Flight Level Band:</td><td></td><td colspan="2"></td></tr>
<tr><td colspan="2">Potential City Pairs:</td><td></td><td colspan="2"></td></tr>
<tr><td></td><td></td><td></td><td colspan="2"></td></tr>
<tr><td></td><td></td><td></td><td></td><td colspan="2"></td><td colspan="2"></td><td colspan="2"></td><td></td></tr>
<tr><td colspan="2">Conclusions/Remarks</td><td colspan="4"></td><td colspan="2"></td><td colspan="2">Last updated</td><td colspan="2">ATM SG/1 June 2014</td></tr>
</table>

MID/RC-099	**ATS Route Name:** New Route ATMUL-OBD	**Entry-Exit:** ATMUL-OBD	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	IATA
							Date of Proposal	

Route Description		States Concerned	Expected Implementation date	Implementation Status	ANP Status	Action Taken/Required	Deadline for each Action
ATMUL **OBD**	Egypt Sudan			No progress reported		ATS Route Segment from point ATMUL to OBD in the Khartoum FIR Sudan has no objection	TBD
Flight Level Band:							
Potential City Pairs:							

Conclusions/Remarks			**Last updated**	ATM SG/1 June 2014



MID/RC-099

MID/RC-…..	**ATS Route Name:**	**Entry-Exit:**	**Inter-Regional Cross Reference if any**		**Users Priority**	High	**Originator of Proposal**	
							Date of Proposal	

Route Description	**States Concerned**	**Expected Implementation date**	**Implementation Status**	**ANP Status**	**Action Taken/Required**	**Deadline for each Action**
Flight Level Band:						
Potential City Pairs:						

Conclusions/Remarks		**Last updated**	

APPENDIX 5A

INTERNATIONAL CIVIL AVIATION ORGANIZATION

MIDDLE EAST AIR NAVIGATION PLANNING AND IMPLEMENTATION REGIONAL GROUP (MIDANPIRG)

MID REGION PERFORMANCE BASED NAVIGATION IMPLEMENTATION PLAN

Draft version 1.0
June, 2014

AMENDMENTS

The MID Region PBN Implementation Plan should be reviewed and updated by the PBN and/or the ATM Sub-Groups and presented to MIDANPIRG for endorsement.

Stakeholders shall submit their proposal for amendment to the Plan to the ICAO MID Regional Office at least three months prior the PBN or the ATM Sub-Groups meetings in order to ensure adequate time for appropriate coordination. The table below provides a means to record all amendments.

An up to date electronic version of the Plan will be available on the ICAO MID Regional Office website.

Amendment Number	Effective Date	Initiated by	Impacted pages	Remarks

EXECUTIVE SUMMARY

The MID Region Performance Based Navigation (PBN) Implementation Plan has been developed to harmonize PBN implementation in the MID Region and to addresses the strategic objectives of PBN based on clearly established operational requirements, avoiding equipage of multiple on-board or ground based equipment, avoidance of multiple airworthiness and operational approvals and explains in detail contents relating to potential navigation applications.

The Plan was prepared in accordance with ICAO provisions related to PBN, the Global Air Navigation Plan, Aviation System Block Upgrades (ASBU) methodology, MID Region Air Navigation Plan and the MID Region Air Navigation Strategy. In addition to the Assembly Resolutions and the twelfth Air Navigation Conference (AN-Conf/12) Recommendations related to PBN.

The plan envisages pre- and post-implementation safety assessments and continued availability of conventional air navigation procedures during transition. The plan discusses issues related to implementation which include traffic forecasts, aircraft fleet readiness, adequacy of ground-based CNS infrastructure etc. Implementation targets for various categories of airspace for the short term (2013 – 2017) and for the medium term (2018 – 2022) have been projected in tabular forms to facilitate easy reference. For the long term (2023 and beyond) it has been envisaged that GNSS and its augmentation system would become the primary navigation infrastructure

This Document consolidates, updates and supersedes all previous MID Region PBN and GNSS Strategies/Plans.

The parts related to PBN implementation for En-route will be reviewed and updated by the ATM Sub-Group and those related to terminal and approach will be reviewed and updated by the PBN Sub-Group.

Explanation of Terms

The drafting and explanation of this document is based on the understanding of some particular terms and expressions that are described below:

MID Region PBN Implementation Plan - A document offering appropriate guidance for air navigation service providers, airspace operators and users, regulating agencies, and international organizations, on the evolution of navigation, as one of the key systems supporting air traffic management, and which describes the RNAV and RNP navigation applications that should be implemented in the short, medium and long term in the MID Region.

Performance Based Navigation - Performance based navigation specifies RNAV and RNP system performance requirements for aircraft operating along an ATS route, on an instrument approach procedure or in an airspace.

Performance requirements - Performance requirements are defined in terms of accuracy, integrity, continuity, availability and functionality needed for the proposed operation in the context of a particular airspace concept. Performance requirements are identified in navigation specifications which also identify which navigation sensors and equipment may be used to meet the performance requirement.

REFERENCE DOCUMENTS

The below ICAO Documents provide Guidance related to the PBN implementation:

- PANS-ATM (Doc 4444)
- PANS-Ops (Doc 8168)
- PBN Manual (Doc 9613)
- GNSS Manual (Doc 9849)
- RNP AR Procedure Design Manual (Doc 9905)
- CDO Manual (Doc 9931)
- Manual on Use of PBN in Airspace Design (Doc 9992)
- CCO Manual (Doc 9993)
- Procedure QA Manual (Doc 9906)
- PBN Ops Approval Manual (Doc 9997)

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ACRONYMS

The acronyms used in this document along with their expansions are given in the following List:

AACO	Arab Air Carrier Association
ABAS	Aircraft-Based Augmentation System
ACAC	Arab Civil Aviation Commission
AIS	Aeronautical Information System
APAC	Asia and Pacific Regions
APCH	Approach
APV	Approach Procedures with Vertical Guidance
AOC	Air operator certificate
ATC	Air Traffic Control
ASBU	Aviation System Block Upgrades
Baro VNAV	Barometric Vertical Navigation
CCO	Continuous Climb Operations
CDO	Continuous Decent Operations
CNS/ATM	Communication Navigation Surveillance/Air Traffic Management
CPDLC	Controller Pilot Data Link Communications
DME	Distance Measuring Equipment
FASID	Facilities and Services Implementation Document
FIR	Flight Information Region
FMS	Flight Management System
GBAS	Ground-Based Augmentation System
GNSS	Global Navigation Satellite System
GLS	GBAS Landing System
IATA	International Air Transport Association
IFALPA	International Federation of Air Line Pilots' Associations
IFATCA	International Federation of Air Traffic Controllers' Associations
IFF	Identification Friend or Foe
INS	Inertial Navigation System
IRU	Inertial Reference Unit
MEL	Minimum equipment list
MIDANPIRG	Middle East Air Navigation Planning and Implementation Regional Group
MID RMA	Middle East Regional Monitoring Agency
MLAT	Multilateration
PANS	Procedures for Air Navigation Services
PBN	Performance Based Navigation
PIRG	Planning and Implementation Regional Group
RCP	Required Communication Performance
RNAV	Area Navigation
RNP	Required Navigation Performance
SARP	Standards and Recommended Practices
SBAS	Satellite-Based Augmentation System
SID	Standard Instrument Departure
SOP	Standard operating procedure
STAR	Standard Instrument Arrival
TAWS	Terrain awareness warning system
TMA	Terminal Control Area
VOR	VHF Omni-directional Radio-range
WGS	World Geodetic System

CHAPTER 1

PERFORMANCE BASED NAVIGATION

1. INTRODUCTION

1.1 The Performance Based Navigation (PBN) concept specifies aircraft RNAV system performance requirements in terms of accuracy, integrity, availability, continuity and functionality needed for the proposed operations in the context of a particular airspace concept, when supported by the appropriate navigation infrastructure. In this context, the PBN concept represents a shift from sensor-based to performance based navigation.

1.2 The main tool for optimizing the airspace structure is the implementation of PBN, which will foster the necessary conditions for the utilization of RNAV and RNP capabilities by a significant portion of airspace users in the MID Region.

1.3 The MID Regional PBN Implementation Plan will serve as guidance for regional projects for the implementation of air navigation infrastructure, such as SBAS, GBAS, GLS etc., as well as for the development of national implementation plans.

1.4 The PBN Manual (Doc 9613) provides guidance on PBN navigation specifications and encompasses two types of approvals: airworthiness, exclusively relating to the approval of aircraft, and operational, dealing with the operational aspects of the operator. PBN approval will be granted to operators that comply with these two types of approval.

1.5 After the implementation of PBN as part of the airspace concept, the total system needs to be monitored to ensure that safety of the system is maintained. A system safety assessment shall be conducted during and after implementation and evidence collected to ensure that the safety of the system is assured.

2. BENEFITS OF PERFORMANCE BASED NAVIGATION

a) *Access and Equity*: Increased aerodrome accessibility.

b) *Capacity*: In contrast with ILS, the GNSS based approaches do not require the definition and management of sensitive and critical areas resulting in potentially increased runway capacity.

c) *Efficiency*: Cost savings related to the benefits of lower approach minima: fewer diversions, overflights, cancellations and delays. Cost savings related to higher airport capacity in certain circumstances (e.g. closely spaced parallels) by taking advantage of the flexibility to offset approaches and define displaced thresholds.

d) *Environment*: Environmental benefits through reduced fuel burn.

e) *Safety*: Stabilized approach paths.

f) *Cost Benefit Analysis*: Aircraft operators and air navigation service providers (ANSPs) can quantify the benefits of lower minima by using historical aerodrome weather observations and modeling airport accessibility with existing and new minima. Each aircraft operator can then assess benefits against the cost of any required avionics upgrade. Until there are GBAS (CAT II/III) Standards, GLS cannot be considered as a candidate to globally replace ILS. The GLS business case needs to consider the cost of retaining ILS or MLS to allow continued operations during an interference event

3. GOALS AND OBJECTIVES OF PBN IMPLEMENTATION

3.1. The MID Region PBN Implementation Plan has the following strategic objectives:

a) ensure that implementation of the navigation element of the MID CNS/ATM system is based on clearly established operational requirements;

b) avoid unnecessarily imposing the mandate for multiple equipment on board or multiple systems on ground;

c) avoid the need for multiple airworthiness and operational approvals for intra and inter-regional operations; and

d) avoid an eclipsing of ATM operational requirements by commercial interests, generating unnecessary costs States, international organization, and airspace users.

3.2. Furthermore, the Plan will provide a high-level strategy for the evolution of the navigation applications to be implemented in the MID Region in the short term (2013-2017), medium term (2018-2022).

3.3. The plan is intended to assist the main stakeholders of the aviation community to plan the future transition and their investment strategies. For example, Operators can use this Regional Plan to plan future equipage and additional navigation capability investment; Air Navigation Service Providers can plan a gradual transition for the evolving ground infrastructure, Regulating Agencies will be able to anticipate and plan for the criteria that will be needed in the future.

4. PLANNING PRINCIPLES

4.1. The implementation of PBN in the MID Region shall be based on the following principles:

a) implementation of PBN specification and granting PBN operational approvals should be in compliance with ICAO provisions;

b) States conduct pre- and post–implementation safety assessments to ensure the application and maintenance of the established target level of safety;

c) continued application of conventional air navigation procedures during the transition period, to guarantee the operation by users that are not PBN capable;

d) Users/operational requirements should be taken into consideration while planning for PBN implementation;

e) States should provide the ICAO MID Regional Office with their updated PBN implementation Plan on annual basis (before December);

f) the implementation of Advanced-RNP should start by January 2015;

g) implementation of approach procedures with vertical guidance (APV) (Baro-VNAV and/or augmented GNSS), including LNAV only minima, for all runway ends at international Aerodromes, either as the primary approach or as a back-up for precision approaches by 2017 with intermediate milestones as follows: 50 percent by 2015 and 70 per cent by 2016;

h) implementation of straight-in LNAV only procedures, as an exception to g) above, for instrument runways at aerodromes where there is no local altimeter setting available and where there are no aircraft suitably equipped for APV operations with a maximum certificated take-off mass of 5 700 kg or more.

5. PBN OPERATIONAL REQUIREMENTS AND IMPLEMENTATION STRATEGY

5.1. Introduction of PBN should be consistent with the Global Air Navigation Plan. Moreover, PBN Implementation shall be in full compliance with ICAO SARPs and PANS.

5.2. Continuous Climb and Descent Operations (CCO and CDO) are two of several tools available to aircraft operators and ANSPs that, through collaboration between stakeholders, will make it possible to increase efficiency, flight predictability and airspace capacity, while reducing fuel burn, emissions and controller-pilot communications, thereby enhancing safety.

En-route

5.3. Considering the traffic characteristic and CNS/ATM capability of the Region, the En-route operations can be classified as oceanic, remote continental, continental, and local/domestic. In principle, each classification of the En-route operations should adopt, but not be limited to single PBN navigation specification. This implementation strategy will be applied by the States and international organizations themselves, as coordinated at regional level to ensure harmonization.

5.4. In areas where operational benefits can be achieved and appropriate CNS/ATM capability exists or can be provided for a more accurate navigation specification, States are encouraged to introduce more accurate navigation specification on the basis of coordination with stakeholders and affected neighbouring States.

Terminal

5.5. Terminal operations have their own characteristics, taking into account the applicable separation minima between aircraft and between aircraft and obstacles. It also involves the diversity of aircraft, including low-performance aircraft flying in the lower airspace and conducting arrival and departure procedures on the same path or close to the paths of high-performance aircraft.

5.6. In this context, the States should develop their own national plans for the implementation of PBN in Terminal Control Areas (TMAs), based on the MID Region PBN Implementation Plan, seeking the harmonization of the application of PBN and avoiding the need for multiple operational approvals for intra- and inter-regional operations, and the applicable aircraft separation criteria.

Approach

5.7. ATC workload should be taken into account while developing PBN Approach Procedures. One possible way to accomplish this would be by co-locating the Initial Approach Waypoint (IAW) for PBN with the Initial Approach Fix (IAF) of the conventional approaches. States should phase-out conventional non-precision approach procedures at a certain point when deemed operationally suitable and taking in consideration GNSS integrity requirements.

5.8. Therefore, MID States are encouraged to include implementation of CCO and CDO, where appropriate, as part of their PBN implementation plans, in compliance with the provisions of ICAO Documents 9931 and 9993, and in accordance with the MID Region Air Navigation Strategy.

5.9. Sates are encouraged to plan for the implementation of RNP AR procedures, which can provide significant operational and safety advantages over other area navigation (RNAV) procedures by incorporating additional navigational accuracy, integrity and functional capabilities to permit operations using reduced obstacle clearance tolerances that enable approach and departure procedures to be implemented in circumstances where other types of approach and departure procedures are not operationally possible or satisfactory. Procedures implemented in accordance with RNP AR Procedure Design Manual (Doc 9905) allow the exploitation of high-quality, managed lateral and vertical navigation (VNAV) capabilities that provide improvements in operational safety and reduced Controlled Flight Into Terrain (CFIT) risks.

CHAPTER 2

CNS INFRASTRUCTURE

1. NAVIGATION INFRASTRUCTURE

Global Navigation Satellite System (GNSS)

1.1. Global Navigation Satellite System (GNSS) is a satellite-based navigation system utilizing satellite signals, such as Global Positioning System (GPS), and GLONASS for providing accurate and reliable position, navigation, and time services to airspace users. In 1996, the International Civil Aviation Organization (ICAO) endorsed the development and use of GNSS as a primary source of future navigation for civil aviation. ICAO noted the increased flight safety, route flexibility and operational efficiencies that could be realized from the move to space-based navigation.

1.2. GNSS supports both RNAV and RNP operations. Through the use of appropriate GNSS augmentations, GNSS navigation provides sufficient accuracy, integrity, availability and continuity to support en-route, terminal area, and approach operations. Approval of RNP operations with appropriate certified avionics provides on-board performance monitoring and alerting capability enhancing the integrity of aircraft navigation.

1.3. GNSS augmentations include Aircraft-Based Augmentation System (ABAS), Satellite-Based Augmentation System (SBAS) and Ground-Based Augmentation System (GBAS).

1.4. For GNSS implementation States need to provide effective spectrum management and protection of GNSS frequencies by enforcing strong regulatory framework governing the use of GNSS repeaters, and jammers. States need to assess the likelihood and effects of GNSS vulnerabilities in their airspace and apply, as necessary, recognized and available mitigation methods.

1.5. During transition to GNSS, sufficient ground infrastructure for current navigation systems must remain available. Before existing ground infrastructure is considered for removal, users should be consulted and given reasonable transition time to allow them to equip accordingly.

1.6. GNSS implementation should take advantage of the improved robustness and availability made possible by the existence of multiple global navigation satellite system constellations and associated augmentation systems.

1.7. Operators consider equipage with GNSS receivers able to process more than one constellation in order to gain the benefits associated with the support of more demanding operations. States allow for realization of the full advantages of on-board mitigation techniques.

2. OTHER NAVIGATION INFRASTRUCTURE SUPPORTING PBN

2.1. Other navigation infrastructure that supports PBN applications includes INS, VOR/DME, DME/DME, and DME/DME/IRU. These navigation infrastructures may satisfy the requirements of RNAV navigation specifications, but not those of RNP.

2.2. INS may be used to support PBN en-route operations with RNAV-10 and RNAV 5 navigation specifications.

2.3. VOR/DME may be used to support PBN en-route operations based on RNAV 5 navigation specification.

2.4. DME/DME and DME/DME/IRU may support PBN en-route and terminal area operations based on RNAV 5, and RNAV 1 navigation specifications. Validation of DME/DME

coverage area and appropriate DME/DME geometry should be conducted to identify possible DME/DME gaps, including identification of critical DMEs, and to ensure proper DME/DME service coverage.

Note.- The conventional Navaid infrastructure should be maintained to support non-equipped aircraft during a transition period until at least 2017.

3. SURVEILLANCE INFRASTRUCTURE

3.1. For RNAV operations, States should ensure that sufficient surveillance coverage is provided to assure the safety of the operations. Because of the on-board performance monitoring and alerting requirements for RNP operations, surveillance coverage may not be required. Details on the surveillance requirements for PBN implementation can be found in the ICAO PBN Manual (Doc 9613) and ICAO PANS-ATM (Doc 4444), and information on the current surveillance infrastructure in the MID can be found in ICAO FASID table.

3.2. Multilateration (MLAT) employs a number of ground stations, which are placed in strategic locations around an airport, its local terminal area or a wider area that covers the larger surrounding airspace. Multilateration requires no additional avionics equipment, as it uses replies from Mode A, C and S transponders, as well as military IFF and ADS-B transponders. MLAT is under consideration by several MID States (Bahrain, Egypt, Oman and UAE).

4. COMMUNICATION INFRASTRUCTURE

4.1. Implementation of RNAV and RNP routes includes communication requirements. Details on the communication requirements for PBN implementation can be found in ICAO PANS-ATM (Doc 4444), ICAO RCP Manual (Doc 9869), and ICAO Annex 10. Information on the current communication infrastructure in the MID can also be found in MID FASID tables.

CHAPTER 3

IMPLEMENTATION OF PBN

1. ATM OPERATIONAL REQUIREMENTS

1.1. The Global ATM Operational Concept: Doc 9854 makes it necessary to adopt an airspace concept able to provide an operational scenario that includes route networks, minimum separation standards, assessment of obstacle clearance, and a CNS infrastructure that satisfies specific strategic objectives, including safety, access, capacity, efficiency, and environment.

1.2. During the planning phase of any implementation of PBN, States should gather inputs from all aviation stakeholders to obtain operational needs and requirements. These needs and requirements should then be used to derive airspace concepts and to select appropriate PBN navigation specification

1.3. In this regard, the following should be taken into consideration:

a) Traffic and cost benefit analyses
b) Necessary updates on automation
c) Operational simulations in different scenarios
d) ATC personnel training
e) Flight plan processing
f) Flight procedure design training to include PBN concepts and ARINC-424 coding standard
g) Enhanced electronic data and processes to ensure appropriate level of AIS data accuracy, integrity and timeliness
h) WGS-84 implementation in accordance with ICAO Annex 15
i) Uniform classification of adjacent and regional airspaces, where practicable
j) RNAV/RNP applications for SIDs and STARs
k) Coordinated RNAV/RNP routes implementation
l) RNP approach with vertical guidance
m) Establish PBN approval database

1.4. Table 2-1 shows the navigation specifications published in Parts B and C of PBN Manual (Doc 9613), Volume II. It demonstrates, for example, that navigation specifications extend over various phases of flight. It also contains the Navaids/Sensor associated with each PBN specification.

1.5. The implementation of PBN additional functionalities/path terminator should be considered while planning/designing new procedures such as:

- the Radius to Fix (RF) for approach;
- Fixed Radius Transition (FRT) for En-route; and
- Time of Arrival Control (TOAC).

Table 3-1. Application of navigation specification by flight phase

Navigation Specification	*FLIGHT PHASE*								NAVAIDS/SENSORS				
	En-route oceanic/ remote	*En-route continental*	*Arrival*	*Approach*				*DEP*	GNSS	IRU	DME/ DME	DME/ DME/ IRU	VOR/ DME
				Initial	*Intermediate*	*Final*	*Missed*[1]						
RNAV 10	10	N/A		N/A				N/A	O	O	N/A		
RNAV 5[2]	N/A	5	5						O	O	O	N/A	O
RNAV 2		2	2					2	O	N/A	O	O	N/A
RNAV 1		1	1	1	1	N/A	1	1	O		O	O	
RNP 4	4	N/A		N/A				N/A	M				
RNP 2	2	2	N/A						M		SR	SR	
RNP 1[3]	N/A		1	1	1	N/A	1	1	M		SR	SR	
Advanced RNP (A-RNP)[4]	2	2 or 1	1	1	1	0.3	1	1	M		SR	SR	
RNP APCH[6]	N/A			1	1	0.3[7]	1	N/A	M		N/A		
RNP AR APCH				1-0.1	1-0.1	0.3-0.1	1-0.1		M				
RNP APCH APV				1	1	0.3	1		M				
RNP 0.3[8]	N/A		0.3	0.3	0.3	0.3	0.3	0.3	M				

O: Optional; M: Mandatory; SR: Subject ANSP Requirements

1. *Only applies once 50 m (40 m, Cat H) obstacle clearance has been achieved after the start of climb.*
2. *RNAV 5 is an en-route navigation specification which may be used for the initial part of a STAR outside 30 NM and above MSA.*
3. *The RNP 1 specification is limited to use on STARs, SIDs, the initial and intermediate segments of IAPs and the missed approach after the initial climb phase. Beyond 30 NM from the ARP, the accuracy value for alerting becomes 2 NM.*
4. *A-RNP also permits a range of scalable RNP lateral navigation accuracies*
5. *PBN manual contains two sections related to the RNP APCH specification: Section A is enabled by GNSS and Baro-VNAV, Section B is enabled by SBAS.*
6. *RNP 0.3 is applicable to RNP APCH Section A. Different angular performance requirements are applicable to RNP APCH Section B only.*
7. *The RNP 0.3 specification is primarily intended for helicopter operations***.**

2. IMPLEMENTATION PHASES:

En-route

Short Term:

2.1. The current application of RNAV 10 will continue for Oceanic and Remote continental routes.

2.2. For Continental RNAV 5 specifications should be completed by December 2017. Before the PBN concept, the MID Region adopted the Regional implementation of RNP 5.Furtehr to application of the PBN concept it is now required that RNP 5 be changed into RNAV 5. Based on operational requirements, States may choose to implement RNAV 1 routes to enhance efficiency of airspace usages and support closer route spacing, noting that appropriate communication and surveillance coverage is provided. Details of these requirements are provided in the PBN manual (Doc 9613) and PANS-ATM (Doc 4444).

Medium Term:

2.3. RNP 4 and/or RNP 2 routes would be considered for implementation for the En-route oceanic/remote operations.

2.4. RNP 2 or 1 would be considered for implementation for En-route continental/local domestic operations.

Terminal

Short Term:

2.5. In a non-surveillance environment and/or in an environment without adequate ground navigation infrastructure, the SID/STAR application of Basic-RNP 1 is expected in selected TMAs with exclusive application of GNSS.

2.6. CCO and CDO should be implemented at the defined TMAs, in accordance with the State PBN implementation Plans, the MID Region Air navigation Strategy and the MID ANP.

Medium Term:

2.7. RNAV 1, A-RNP 1 will be implemented in all TMAs, expected target will be 70 % by the end of this term.

Approach

Short Term:

2.8. Implementation of PBN approaches with vertical guidance (APV) for runway ends at the international aerodromes listed in the MID ANP should be completed by December 2017, including LNAV only minima.

2.9. The application of RNP AR APCH procedures would be limited to selected airports, where obvious operational benefits can be obtained due to the existence of significant obstacles.

Medium Term:

2.10. The extended application of RNP AR APCH should continue for airports where there are operational benefits.

2.11. To progress further with the universal implementation of PBN approaches. GLS procedures should be implemented for the defined runway ends to enhance the reliability and predictability of approaches to runways increasing safety, accessibility, and efficiency.

2.12. Table 3-2 summarizes the implementation targets of each PBN navigation specification in the MID Region:

Table 3-2. SUMMARY TABLE AND IMPLEMENTATION TARGETS

Airspace	Short term 2014-2017		Medium term 2018-2022	
	Navigation Specification Preferred	**Targets**	**Navigation Specification Acceptable**	**Targets**
En-route – Oceanic	RNAV 10	100 % by 2016	RNP 4* RNP 2* Defined airspace (A-RNP)	TBD
En-route - Remote continental	RNAV 5 RNAV 10	W/A 100% by 2016	RNP 4* RNP 2* Defined airspace (A-RNP)	TBD
En-route – Continental	RNAV 5 RNAV 1	100 % by 2017 W/A[1]	RNP 2* or 1* Defined airspace (A-RNP)	TBD
En-route - Local / Domestic	RNAV 5 RNAV 1	100 % by 2017 W/A	RNP 2 or 1 Defined airspace (A-RNP)	TBD
TMA – Arrival	RNAV 1 in surveillance environment and with adequate navigation infrastructure. Basic RNP 1 in non-surveillance environment	50% by December 2015 100% by 2017	RNP 1 and RNP 2 beyond 30 NM from ARP (A-RNP)	TBD
TMA – Departure	RNAV 1 in surveillance environment and with adequate navigation infrastructure. Basic RNP 1 in non- surveillance environment	50% by 2015 100% by 2017	RNP 1 and RNP 2 beyond 30 NM from ARP (A-RNP)	TBD
Approach	LNAV: for all RWY Ends at International Aerodromes LNAV/VNAV: for all RWY Ends at International Aerodromes	80 % by 2014. 100% by 2015 70% by 2015 100% by 2017	GLS (GBAS) For the defined RWY Ends	TBD
CCO and CDO	W/A	100% by 2017	W/A	TBD

– *W/A: where applicable/defined Airspace, in accordance with State PBN implementation Plans, the MID Region Air navigation Strategy and the MID ANP.*
– ** would be considered for implementation at the identified Airspace/TMAs*
– *When no month is specified (e.g. by 2017) means by the end of the year (December 2017).*

Long Term (2023 and Beyond)

2.13. In this phase, GNSS augmentation is expected to be a primary navigation infrastructure for PBN implementation. States should work co-operatively on a multinational basis to implement GNSS in order to facilitate seamless and inter-operable systems and undertake coordinated Research and Development (R&D) programs on GNSS implementation and operation.

2.14. Moreover, during this phase, States are encouraged to consider segregating traffic according to navigation capability and granting preferred routes to aircraft with better navigation performance.

2.15. The required PBN navigation specifications and their associated targets to be implemented for the Long term will be defined in due course.

CHAPTER 4

SAFETY ASSESSMENT AND MONITORING

1. NEED FOR SAFETY ASSESSMENT

1.1. To ensure that the introduction of PBN en-route applications within the MID Region is undertaken in a safe manner and in accordance with relevant ICAO provisions, implementation shall only take place following conduct of a safety assessment that has demonstrated that an acceptable level of safety will be met. This assessment may also need to demonstrate levels of risk associated with specific PBN en-route implementation. Additionally, ongoing periodic safety reviews shall be undertaken where required in order to establish that operations continue to meet the target levels of safety

2. ROLES AND RESPONSIBILITIES

2.1. To demonstrate that the system is safe, it will be necessary that the implementing agency – a State or group of States - ensures that a safety assessment and, where required, ongoing monitoring of the PBN En-route implementation are undertaken.

2.2. In undertaking a safety assessment to enable en-route implementation of PBN, a State or the implementing agency shall:

a) establish and maintain a database of PBN approvals;

b) monitor aircraft horizontal-plane navigation performance and the occurrence of large navigation errors and report results;

c) conduct safety and readiness assessments;

d) monitor operator compliance with State approval requirements after PBN implementation; and

e) initiate necessary remedial actions if PBN requirements are not met.

CHAPTER 5
OPERATIONAL APPROVAL

1. OPERATIONAL APPROVAL REQUIREMENTS

1.2. Operational approval is usually the responsibility of the regulatory authority of the State of the Operator for commercial air transport operations and the State of Registry for general Aviation (GA) operations. For certain operations, GA operators may not be required to follow the same authorization model as commercial operators.

1.3. The operational approval assessment must take account of the following:

a) Aircraft eligibility and airworthiness compliance;

b) Operating procedures for the navigation systems used;

c) Control of operating procedures (documented in the OM);

d) Flight crew initial training and competency requirements and continuing competency requirements;

e) Dispatch training requirements;

f) control of navigation database procedures. Where a navigation database is required, operators need to have documented procedures for the management of such databases. These procedures will define the sourcing of navigation data from approved suppliers, data validation procedures for navigation databases and the installation of updates to databases into aircraft so that the databases remain current with the AIRAC cycle. (For RNP AR applications, the control of the terrain database used by TAWS must also be addressed.)

Aircraft eligibility

1.4. An aircraft is eligible for a particular PBN application provided there is clear statement in:

a) the Type Certificate (TC); or
b) the Supplement Type Certificate (STC); or
c) the associated documentation — Aircraft Flight manual (AFM) or equivalent document; or
d) a compliance statement from the manufacturer that has been approved by the State of Design and accepted by the State of Registry or the State of the Operator, if different.

1.5. The operator must have a configuration list detailing the pertinent hardware and software components and equipment used for the PBN operation.

1.6. The TC is the approved standard for the production of a specified type/series of aircraft. The aircraft specification for that type/series, as part of the TC, will generally include a navigation standard. The aircraft documentation for that type/series will define the system use, operational limitations, equipment fitted and the maintenance practices and procedures. No changes (modifications) are permitted to an aircraft unless the CAA of the State of Registry either approves such changes through a modification approval process, STC or accepts technical data defining a design change that has been approved by another State.

1.7. For recently manufactured aircraft, where the PBN capability is approved under the TC, there may be a statement in the AFM limitations section identifying the operations for which the

aircraft is approved. There is also usually a statement that the stated approval does not itself constitute an approval for an operator to conduct those operations. Alternate methods of achieving the airworthiness approval of the aircraft for PBN operations is for the aircraft to be modified in accordance with approved data. (e.g. STC, minor modification, etc.)

1.8. One means of modifying an aircraft is the approved Service Bulletin (SB) issued by the aircraft manufacturer. The SB is a document approved by the State of Design to enable changes to the specified aircraft type and the modification then becomes part of the type design of the aircraft. Its applicability will normally be restricted by the airframe serial number. The SB describes the intention of the change and the work to be done to the aircraft. Any deviations from the SB require a design change approval; any deviations not approved will invalidate the SB approval. The State of Registry accepts the application of an SB and changes to the maintenance programme, while the State of the Operator accepts changes to the maintenance programme and approves changes to the MEL, training programmes and Operations specifications. An Original Equipment Manufacturer (OEM) SB may be obtained for current production or out of production aircraft.

1.9. In respect of PBN, in many cases for legacy aircraft, while the aircraft is capable of meeting all the airworthiness requirements, there may be no clear statement in the applicable TC or STC or associated documents (AFM or equivalent document). In such cases, the aircraft manufacturer may elect to issue an SB with appropriate AFM update or instead may publish a compliance statement in the form of a letter, for simple changes, or a detailed aircraft type specific document for more complex changes. The State of Registry may determine that an AFM change is not required if it accepts the OEM documentation. **Table 5-1** lists the possible scenarios facing an operator who wishes to obtain approval for a PBN application, together with the appropriate courses of action.

Table 5-1

Scenario	Aircraft certification status	Actions by operator/owner
1	Aircraft designed and type certificated for PBN application. Documented in AFM, TC or the STC	No action required, aircraft eligible for PBN application
2	Aircraft equipped for PBN application but not certified. No statement in AFM. SB available from the aircraft manufacturer	Obtain SB (and associated amendment pages to the AFM) from the aircraft manufacturer
3	Aircraft equipped for PBN application. No statement in AFM. SB not available. Statement of compliance available from the aircraft manufacturer	Establish whether the statement of compliance is acceptable to the regulatory authority of the State of Registry of the aircraft
4	Aircraft equipped for PBN application. No statement in AFM. SB not available. Statement of compliance from the aircraft manufacturer not available	Develop detailed submission to State of Registry showing how the existing aircraft equipment meets the PBN application requirements
5	Aircraft not equipped for PBN application	Modify aircraft in accordance with the aircraft manufacturer's SB or develop a major modification in conjunction with an approved design organization in order to obtain an approval from the State of Registry (STC).

Operating procedures

1.10. The Standard operating procedure (SOP) must be developed to cover both normal and non-normal (contingency) procedures for the systems used in the PBN operation. The SOP must address:

a) preflight planning requirements including the MEL and, where appropriate, RNP/RAIM prediction;
b) actions to be taken prior to commencing the PBN operation;
c) actions to be taken during the PBN operation; and
d) actions to be taken in the event of a contingency, including the reporting of significant incidents

GA pilots must ensure that they have suitable procedures/checklists covering all these areas

Control of operating procedures

1.11. The SOP must be adequately documented in the OM and checklists

Flight crew and dispatch training

1.12. A flight crew and dispatch training programme for the PBN operation must cover all the tasks associated with the operation and provide sufficient background to ensure a comprehensive understanding of all aspects of the operation. The operator must have adequate records of course completion for flight crew, flight dispatchers and maintenance personnel.

Control of navigation database procedures

1.13. If a navigation database is required, the procedures for maintaining currency, checking for errors and reporting errors to the navigation database supplier must be documented in the maintenance manual by commercial operators

2. DOCUMENTATION OF OPERATIONAL APPROVAL

2.1. Operational approval may be documented as an endorsement of the Air operator certificate (AOC) through:

a) an Operations specification, associated with the AOC; or
b) an amendment to the OM; or
c) an LOA.

2.2. During the validity of the operational approval, the CAA should consider any anomaly reports received from the operator or other interested party. Repeated navigation error occurrences attributed to a specific piece of navigation equipment may result in restrictions on use or cancelation of the approval for use of that equipment. Information that indicates the potential for repeated errors may require modification of an operator's training programme. Information that attributes multiple errors to a particular pilot or crew may necessitate remedial training and checking or a review of the operational approval.

2.3. The State may determine that a GA aircraft may operate on a PBN route/procedure provided that the operator has ensured that the aircraft has suitably approved equipment (is eligible), the navigation database is valid, the pilot is suitably qualified and current with respect to the equipment, and adequate procedures (checklists) are in place.

3. STATE REGULATORY MATERIAL

3.1. Individual States must develop national regulatory material which addresses the PBN applications relevant to their airspace or relevant to operations conducted in another State by the State's operators or by aircraft registered in that State. The regulations may be categorized by operation, flight phase, area of operation and/or navigation specification. Approvals for commercial operations should require specific authorization.

4. APPROVAL PROCESS

General

4.2. Since each operation may differ significantly in complexity and scope, the project manager and the operational approval team need considerable latitude in taking decisions and making recommendations during the approval process. The ultimate recommendation by the project manager and decision by the DGCA regarding operational approval should be based on the determination of whether or not the applicant:

a) meets the requirements established by the State in its air navigation regulations;
b) is adequately equipped; and
c) is capable of conducting the proposed operation in a safe and efficient manner.

4.3. The complexity of the approval process is based on the inspector's assessment of the applicant's proposed operation. For simple approvals, some steps can be condensed or eliminated. Some applicants may lack a basic understanding of what is required for approval. Other applicants may propose a complex operation, but may be well prepared and knowledgeable. Because of the variety in proposed operations and differences in an applicant's knowledge, the process must be thorough enough and flexible enough to apply to all possibilities.

Phases of the approval process

Step 1 — Pre-application phase

4.4. The operator initiates the approval process by reviewing the requirements; establishing that the aircraft, the operating procedures, the maintenance procedures and the training meet the requirements; and developing a written proposal to the regulator. A number of regulators have published "job aids" to assist the operator in gathering the necessary evidence to support the approval application. At this stage a pre-application meeting with the regulator can also be very beneficial. If the proposed application is complex, the operator may need to obtain advice and assistance from OEMs or other design organizations, training establishments, data providers, etc.

Step 2 — Formal application phase

4.5. The operator submits a formal, written application for approval to the CAA, which appoints a project manager either for the specific approval or generally for PBN approvals.

Step 3 — Document evaluation phase

4.6. The CAA project manager evaluates the formal, written application for approval to determine whether all the requirements are being met. If the proposed application is complex, the project manager may need to obtain advice and assistance from other organizations such as regional agencies or experts in other States.

Step 4 — Demonstration and inspection phase

4.7. During a formal inspection by the project manager (assisted as necessary by a CAA team), the operator demonstrates how the requirements are being met.

Step 5 — Approval phase

4.8. Following a successful formal inspection by the CAA, approval is given via:

a) an Operations specification, associated with the AOC; or
b) an amendment to the OM; or
c) an LOA.

Some PBN applications may not require formal approval for GA operations — this will be determined by the State of Registry.

Note.— The approval procedure described above consists of a simplified process of the certification guidance contained in Part III of the Manual of Procedures for Operations Inspection, Certification and Continued Surveillance *(Doc 8335).*

5. FOREIGN OPERATIONS

5.1. A State undertakes, in accordance with Article 12 to the Convention, to ensure that every aircraft flying over or manoeuvring within its territory shall comply with the rules and regulations relating to the flight and manoeuvre of aircraft there in force. Article 33 to the Convention provides that certificates of airworthiness and certificates of competency and licences issued, or rendered valid, by the State in which an aircraft is registered, shall be recognized by other States, provided that the requirements under which such certificates or licences were issued or rendered valid are equal to or above the minimum standards which may be established by ICAO. This requirement for recognition is now extended by Annex 6, Part I and Part III, Section II, such that Contracting States shall recognize as valid an AOC issued by another Contracting State, provided that the requirements under which the certificate was issued are at least equal to the applicable Standards specified in Annex 6, Part I and Part III.

5.2. States should establish procedures to facilitate the application by foreign operators for approval to operate into their territory. States should be careful in their requirements for applications, to request only details relevant to the evaluation of the safety of the operations under consideration and their future surveillance. When evaluating an application by an operator from another State to operate within its territory a State will examine both the safety oversight capabilities and record of the State of the Operator and, if different, the State of Registry, as well as the operational procedures and practices of the operator. This is necessary in order for the State, in the terms of Article 33 to the Convention, to have confidence in the validity of the certificates and licences associated with the operator, its personnel and aircraft, in the operational capabilities of the operator and in the level of certification and oversight applied to the activities of the operator by the State of the Operator.

5.3. The operator will need to make applications to each State into or over which it is intended to operate. The operator will also need to keep its own CAA, as the authority of the State of the Operator, informed of all applications to operate in other States. Applications should be made direct to the CAAs of the States into which it is intended to operate. In some cases it will be possible to download information and instructions for making an application and the necessary forms from a website maintained by the CAA in question.

5.4. States should promote the implementation and operational approval of Advanced RNP (A-RNP) navigation specifications, which serves all the flight phases as follows:

- En-Route Oceanic, Remote: RNP 2;
- En-Route Continental: RNP 2 or RNP 1;
- Arrival and Departures: RNP 1;
- Initial, intermediate and missed approach phases: RNP 1; and
- Final Approach Phase: RNP 0.3.

5.5. Because functional and performance requirements are defined for each navigation specification, an aircraft approved for an RNP specification is not automatically approved for all RNAV specifications. Similarly, an aircraft approved for an RNP or RNAV specification having a stringent accuracy requirement (e.g. RNP 0.3 specification) is not automatically approved for a navigation specification having a less stringent accuracy requirement (e.g. RNP 4).

APPENDIX 5B

**ATS INTER-FACILITY DATA COMMUNICATION (AIDC)/
ON-LINE DATA INTERCHANGE (OLDI) IMPLEMENTATION PLAN**

Introduction:

The implementation of the AIDC/OLDI in the ICAO MID region has to be in line with the Global Plan and corresponding Module N° B0-FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground, and the Implementation target dates set in the MID Air Navigation Strategy.

Implementation high level activities are divided as follows:

2014 – 2015

- AIDC/OLDI capable ATSUs start implementation activities with a planned implementation date of Q3 2015. The activity should cover the following: Test activities, Safety assessment, Operator training, Revision of LoA, transition activities, Implementation and Post-implementation reviews.

- The ATSUs not capable of AIDC/OLDI should avail the facility of Standalone AIDC/OLDI terminals with a planned implementation date of Q1 2016 , and budget full AIDC/OLDI Integration for 2015 with a planned implementation date of Q2 2017

2015-2016

The ATSUs using AIDC/OLDI in an Operational environment should assist other ATSUs to implement AIDC/OLDI. The OLDI/AIDC software is readily available therefore the ATSUs waiting for software upgrade should expect a software package by Q4 2015, On receipt of it they should start implementation activities with a planned implementation date of Q2 2016.

2017

All ATSUs are connected by Integrated OLDI/AIDC or Standalone OLDI terminals

Specific requirement:

The following States have been identified; that they need to support both AIDC/OLDI:
Egypt, Iran, Saudi Arabia, Oman, Libya, and Sudan.

EXPLANATION OF THE TABLE

Column

1 State/Administration – the name of the State/Administration;

2 Location of AIDC/OLDI end system – the location of the AIDC/OLDI end system under the supervision of State/Administration identified in column 1;

3 AIDC/OLDI Pair – the correspondent AIDC/OLDI end system;

Location – location of the correspondent AIDC/OLDI end system

State/Administration – the name of the State/Administration responsible for management of the correspondent AIDC end system

4 AIDC/OLDI standard used – Wither AIDC/OLDI and the adopted Standard for the connection between the corresponding pairs, AFTN, AFTN/AMHS or ATN;

5 Target Date of Implementation – date of implementation of the AIDC/OLDI end system; and

6 Remarks – any additional information.

Attachment A - the details on the AIDC/OLDI system and the focal point this will facilitate the implementation and contacting hat will accelerate the implementation.

State/Administration	Location of AIDC/OLDI end system	AIDC/OLDI Pair		AIDC/OLDI standard used	Target date of Implementation	Remarks
		Correspondent Location	Correspondent State/Administration			
1	2	3		4	5	6
Bahrain	Bahrain ACC	Jeddah ACC	Saudi Arabia	OLDI	Q2 2015	
	Bahrain ACC	Riyadh ACC	Saudi Arabia	OLDI	Q2 2015	
	Bahrain ACC	Dammam ACC	Saudi Arabia	OLDI	Q2 2015	
	Bahrain ACC	Doha ACC	Qatar	OLDI	Q2 2015	
	Bahrain ACC	Kuwait ACC	Kuwait	OLDI	Q2 2015	
	Bahrain ACC	Abu Dhabi ACC	UAE	OLDI	Q4 2014	
	Bahrain ACC	Tehran ACC	Iran	OLDI	TBD	
Egypt	CAIRO ACC Cairo Air Navigation Center (CANC)	Athens ACC	Greece	OLDI	Implemented	
	CAIRO ACC (CANC)	Jeddah ACC	Saudi Arabia	OLDI	Q2 2015	
	CAIRO ACC (CANC)	Khartoum ACC	Sudan	OLDI	Q4 2014	
	CAIRO ACC (CANC)	Tripoli ACC	Libya	OLDI	Q2 2015	
	CAIRO ACC (CANC)	Beirut ACC	Lebanon		Q4 2014	
	CAIRO ACC (CANC)	Benghazi ACC	Libya			
	CAIRO ACC (CANC)					

Iran	Tehran ACC	Bahrain ACC	Bahrain	OLDI	TBD	
	Tehran ACC	Abu Dhabi ACC	UAE	OLDI	TBD	
	Tehran ACC					
	Tehran ACC					
	Tehran ACC					
	Tehran ACC					
	Tehran ACC					
Iraq	Baghdad ACC	Kuwait ACC	Kuwait	OLDI	TBD	
	Baghdad ACC	Tehran ACC	Iran	OLDI	TBD	
	Baghdad ACC	Amman ACC	Jordan	OLDI	TBD	
	Baghdad ACC	Ankara ACC	Turkey	OLDI	TBD	
	Baghdad ACC			OLDI	TBD	
Jordan	Amman ACC	Jeddah ACC	Saudi Arabia	OLDI (AMHS)	Q2 2015	
	Amman ACC	Baghdad ACC	Iraq	OLDI	TBD	
	Amman ACC	Damascus ACC	Syria	OLDI	TBD	
	Amman ACC	Kuwait ACC	Kuwait	OLDI	Q2 2015	
	Amman ACC					
Kuwait	Kuwait ACC	Amman ACC	Jordan	OLDI	Q2 2015	
	Kuwait ACC	Bahrain ACC	Bahrain	OLDI	Q2 2015	
	Kuwait ACC	Riyadh ACC	Saudi Arabia	OLDI	Q2 2015	

Lebanon	Beirut ACC Rafic Hariri Intl Airport	Cyprus ACC	Cyprus	OLDI	Implemented	
	Beirut ACC Rafic Hariri Intl Airport	Damascus ACC	Syria	OLDI	TBD	
	Beirut ACC Rafic Hariri Intl Airport	Cairo ACC	Egypt	OLDI	Q4 2014	
Libya	Tripoli ACC	Tunis ACC	Tunis	OLDI/AIDC	TBD	
	Tripoli ACC	Malta ACC	Malta	OLDI/AIDC	TBD	
	Tripoli ACC	Cairo ACC	Egypt	OLDI/AIDC	TBD	
	Tripoli ACC	Khartoum ACC	Sudan	OLDI/AIDC	TBD	
	Tripoli ACC	Chad ACC	Chad	OLDI/AIDC	TBD	
	Benghazi ACC	Malta ACC	Malta	OLDI/AIDC	TBD	
	Benghazi ACC	Tripoli ACC	Libya	OLDI/AIDC	TBD	
Oman	Muscat ACC Muscat Intl AP	Abu Dhabi Sheihk Zayed AN center	UAE	OLDI	Q1 2015	
	Muscat ACC Muscat Intl AP	Jeddah ACC	Saudi Arabia	OLDI	Q2 2015	
	Muscat ACC Muscat Intl AP	Mumbai ACC	India	AIDC	Q2 2015	
	Muscat ACC Muscat Intl AP	Bahrain ACC	Bahrain	OLDI	Q2 2015	
	Muscat ACC Muscat Intl AP					
Qatar	Doha ACC	Abu Dhabi Sheihk Zayed AN center	UAE	OLDI	Implemented 2010	
	Doha ACC					
	Doha ACC					

Saudi Arabia	Riyadh ACC	Jeddah ACC	Saudi Arabia	AIDC (AFTN)	Implemented 2012	
	Riyadh ACC	Dammam ACC	Saudi Arabia	AIDC (AFTN)	Implemented 2012	
	Jeddah ACC	Cairo ACC	Egypt	OLDI	Q2 2015	
	Jeddah ACC	Amman ACC	Jordan	OLDI	Q2 2015	
	Jeddah ACC	Abu Dhabi Sheihk Zayed AN center	UAE	OLDI	Q2 2015	
	Jeddah ACC	Muscat	Oman	OLDI	Q2 2015	
	Jeddah ACC	Khartoum ACC	Sudan	OLDI	Q2 2015	
	Jeddah ACC	Sanaa ACC	Yemen	OLDI	TBD	
	Jeddah ACC					
	Jeddah ACC					
	Jeddah ACC					
Sudan	Khartoum ACC	Cairo ACC (CANC)	Egypt	AIDC/OLDI	Q3 2015	
	Khartoum ACC	Jeddah ACC	Saudi Arabia	AIDC/OLDI	Q2 2015	
	Khartoum ACC	N'Djamena ACC	Chad	AIDC (AFTN)	Implemented 2012	No Daily operations
	Khartoum ACC	Kigali ACC	Congo	AIDC (AFTN)	Implemented 2012	No Daily operations
	Khartoum ACC	Tripoli ACC	Libya	AIDC/OLDI	Q3 2015	
Syria	Damascus ACC	Beirut ACC	Lebanon			
	Damascus ACC	Cairo ACC	Egypt			
	Damascus ACC	Beirut ACC	Lebanon			
	Damascus ACC	Beirut ACC	Lebanon			
	Damascus ACC	Beirut ACC	Lebanon			

UAE	SZC Abu Dhabi	Abu Dhabi Int'l Airport	ADAC	OLDI V4.2	Implemented Apr2009	FMTP 2.0
	SZC Abu Dhabi	Dubai Int'l Airport	DANS	OLDI V4.2	Implemented Jun 2012	FMTP 2.0
	SZC Abu Dhabi	Sharjah Int'l Airport	Sharjah DCA	OLDI V4.2	Implemented Feb 2011	FMTP 2.0
	SZC Abu Dhabi	Ras al Khaimah Int'l Airport	Ras al Khaimah DCA	OLDI V4.2	Implemented Mar 2011	FMTP 2.0
	SZC Abu Dhabi	Al Ain Int'l Airport	ADAC	OLDI V4.2	Implemented Oct 2010	FMTP 2.0
	SZC Abu Dhabi	Doha ATC	Qatar CAA	OLDI V4.2	Implemented Jan 2010	FMTP 2.0
	SZC Abu Dhabi	Jeddah ACC	Saudi Arabia			
	SZC Abu Dhabi	Tehran ACC	Iran			
	SZC Abu Dhabi	Muscat ACC	Oman			
	SZC Abu Dhabi					
Yemen	Sanaa ACC	Jeddah ACC	Saudi Arabia			
	Sanaa ACC	Muscat ACC	Oman			
	Sanaa ACC	Djibouti ACC	Djibouti ACC			
	Sanaa ACC	Mogadishu ACC	Somalia			

Attachment A – Details on ATM systems to support implementation

State	Focal point contact for AIDC/ OLDI	ATM System	Protocol and Version used	Number of adjacent ATSUs	Number of adjacent ATSUs connected by AIDC/OLDI and type of connection	ATM System Capability		Current use		Planned Use		Intention of using AIDC only	Reasons and Remarks
						AIDC	**OLDI**	**AIDC**	**OLDI**	**AIDC**	**OLDI**		
Bahrain	Mr. Mohamed Ali Saleh masaleh@caa.gov.bh	Thales TopSky-C	OLDI 2.3 FMTP 2.0	7	None	✔	✔			✔	✔	No	OLDI to connect to neighboring ATSUs
Egypt		TopSky Thales	OLDI V2.3 AIDC V2.0	7	- 1 OLDI with Athens	✔	✔		✔	✔	✔	No	OLDI in use to connect to EUR (Athens) With Jeddah and Riyadh Q2 2015
Iran		Thales		8	None								
Iraq				5	none								
Jordan	Mr.Mohammad Al Rousan m.rousan@carc.gov.jo	Aircon 2100 Indra	OLDI 4.1 AIDC 2.0	5	none	✔	✔			✔	✔	No	Planned with Jeddah Q2 2015
Kuwait				3	none	✔	✔				✔	No	OLDI to connect to Bahrain and Riyadh
Lebanon				3	- 1 OLDI with Cyprus		✔				✔	No	OLDI in use to connect to EUR
Libya		Aircon 2000 Indra	OLDI 2.3 AIDC 2.0	7	None	✔	✔					No	Can connect with Sudan Chad and Egypt AIDC and for OLDI Tunis Malta and Egypt
Oman	Mr. Ali Al	Indra Itec	OLDI 4.1	5	none	✔	✔					No	UAE Q1 2015

	Ajmi alihassan@caa.gov.om		AIDC 2.3										Jeddah Q2 2015 Mumbai Q1 2015
Qatar	Mr. Ahmed Al Eshaq ahmed@caa.gov.qa	Selex	OLDI V4.2 FMTP 2.0 AIDC 2.0	3	1	✔	✔		✔		✔		OLDI in use with UAE and planned for use with Bahrain
Saudi Arabia		PRISMA from COMSOFT	OLDI V4.2 FMTP 2.0 AIDC xx	11	- None - AIDC Connected between Riyadh and Jeddah	✔	✔	✔		✔	✔	No	AIDC for internal and OLDI for neighboring units requests
Sudan	Mr. Abdulmonem Alshkaieh	TopSky	OLDI 4.3 AIDC 2.0	5	2	✔	✔	✔	✔	✔	✔	No	Both AIDC and OLDI to cater to neighboring units requests
Syria				5	none								
UAE	Mr. Hamad Al Belushi hbelushi@szc.gcaa.ae	PRISMA from COMSOFT	OLDI V4.2 FMTP 2.0	10	-3 two-way integrated OLDI connections -2 two-way standalone OLDI -1 one-way Standalone OLDI connection Total 6 OLDI connections		✔		✔		✔	No	OLDI already in use with 6 partners and all neighboring ATSUs are OLDI capable
Yemen				3	none								

UNIT 1 LOGO UNIT 2 LOGO

APPENDIX 5C

LETTER OF AGREEMENT

between

Authority	**and**	**Authority**
ATS Unit 1		**ATS Unit 2**

Revision: xxxx
Effective: xx xxxx xxxx
Revised: xxx

1 General.

1.1 **Purpose.**

The purpose of this Letter of Agreement is to define the co-ordination procedures to be applied between Unit 1 and Unit 2 when providing ATS to General Air Traffic (IFR/VFR) and/or Operational Air Traffic.

These procedures are supplementary to those specified in ICAO, Community Regulations, inter-State or inter air traffic services provider's agreements and/or National Documents.

1.2 **Operational Status.**

Both ATS units shall keep each other advised of any changes in the operational status of the facilities and navigational aids which may affect the procedures specified in this Letter of Agreement.

2 Areas of Responsibility for the Provision of ATS.

2.1 **Areas of Responsibility.**

The lateral and vertical limits of the respective areas of responsibility are as follows:

2.1.1 Unit 1

Lateral limits:

Vertical limits:

ICAO airspace classification for the area of responsibility of Unit 1 along the common boundary of the areas of responsibility of Unit 1 and Unit 2 is described in Appendix B to this Letter of Agreement.

2.1.2 Unit 2

Lateral limits:

Vertical limits:

ICAO airspace classification for the area of responsibility of Unit 2 along the common boundary of the areas of responsibility of Unit 1 and Unit 2 is described in Appendix B to this Letter of Agreement.

2.2 **Areas for Cross Border Provision of ATS.**

The areas defined as a result of the:
- An inter-State Level Agreement for the delegation of the responsibility for the provisions of ATS; or
- A direct designation by a Member State of an air traffic service provider holding a valid certificate in the Community; or
- An air traffic service provider availing itself of the services of another service provider that has been certified in the Community

are to be considered areas for cross border provision of ATS.

These areas defined in other agreements as shown above will be described in this section. The description should address physical dimension as well as the rules and regulations applicable to those areas.

3 Procedures.

3.1 The procedures to be applied by Unit 1 and Unite 2 are detailed in the Appendices to this Letter of Agreement:

Appendix A: Definitions and Abbreviations
Appendix B: Area of Common Interest
Appendix C: Exchange of Flight Data
Appendix D: Procedures for Co-ordination
Appendix E: Transfer of Control and Transfer of Communications
Appendix F: ATS Surveillance Based Co-ordination Procedures
Appendix G: Air Traffic Flow Management
Appendix H: Contingency Procedures
Appendix I: SAR Bilateral Arrangemnts/Agreements

3.2 These procedures shall be promulgated to the operational staff of the ATS units concerned.

4 Revisions and Deviations.

When deemed necessary by the signatories, the content of the present Letter of Agreement can be reviewed at regular intervals to assess the need for revisions of the Letter of Agreement and its Appendixes.

4.1 **Revision of the Letter of Agreement.**

The revision of the present Letter of Agreement, excluding Appendices and their Attachments, requires the mutual written consent of the signatories.

4.2 **Revision of the Appendices to the Letter of Agreement.**

The revision of Appendices to the present Letter of Agreement requires mutual consent of the respective authorities as represented by signatories.

4.3 **Temporary Deviations.**

Where special situations or unforeseen developments arising at short notice require immediate action, the Supervisors of the two ATS units may, by mutual agreement, effect temporary provisions to meet such requirements.

Such provisions shall, however, not exceed 48 hours in duration unless sanctioned by signatories to this LoA.

4.4 **Incidental Deviations.**

4.4.1 Instances may arise where incidental deviations from the procedures specified in the Appendices to this Letter of Agreement may become necessary. Under these circumstances air traffic controllers and operational supervisors are expected to exercise their best judgement to ensure the safety and efficiency of air traffic.

5 Cancellation.

5.1 Cancellation of the present Letter of Agreement may take place by mutual agreement of the respective Approving Authorities.

6 Interpretation and Settlement of Disputes.

6.1 Should any doubt or diverging views arise regarding the interpretation of any provision of the present Letter of Agreement or in case of dispute regarding its application, the parties shall endeavour to reach a solution acceptable to both of them.

6.2 Should no agreement be reached, each of the parties shall refer to a higher level of its national aviation administration, to which the dispute shall be submitted for settlement.

7 Validity.

This Letter of Agreement becomes effective xxx and supersedes previous Letter of agreement between Unit 1 and Unit 2.

Date: Date:

_____ _____

Name
Title
Authority 1

Name
Title
Authority 2

Appendix A.

Definitions and Abbreviations.

Unit 1 **Unit 2**

Revision: xxxx
Effective: xx xxxx xxxx
Revised: xxx

A.1 Definitions.

The definitions may change based on the ATS unites requirements

A.1.1 ATS Area of Responsibility.

An Airspace of defined dimensions where a sole ATS unit has responsibility for providing air traffic services.

A.1.2 Area of Common Interest.

A volume of airspace as agreed between 2 ATS Units, extending into the adjacent/subjacent Areas of Responsibility, within which airspace structure and related activities may have an impact on air traffic co-ordination procedures.

A.1.3 General Air Traffic (GAT).

All flights which are conducted in accordance with the rules and procedures of ICAO and/or the national civil aviation regulations and legislation.

A.1.4 Operational Air Traffic (OAT).

All flights which do not comply with the provisions stated for GAT and for which rules and procedures have been specified by appropriate national authorities.

A.1.5 Reduced Vertical Separation Minimum (RVSM).

A vertical separation minimum of 300 m (1 000 ft) which is applied between FL 290 and FL 410 inclusive, on the basis of regional air navigation agreements and in accordance with conditions specified therein.

A.1.5.1 RVSM Approved Aircraft.

Aircraft that have received State approval for RVSM operations.

A.1.6 **Release.**

A.1.6.1 Release for Climb.

An authorization for the accepting unit to climb (a) specific aircraft before the transfer of control.

Note: The transferring unit/sector remains responsible within its Area of Responsibility for separation between the transferred aircraft and other aircraft unknown to the accepting unit/sector, unless otherwise agreed.

A.1.6.2 Release for Descent.

An authorization for the accepting unit to descend (a) specific aircraft before the transfer of control.

Note: The transferring unit/sector remains responsible within its Area of Responsibility for separation between the transferred aircraft and other aircraft unknown to the accepting unit/sector, unless otherwise agreed.

A.1.6.3 Release for Turn.

An authorization for the accepting unit to turn (a) specific aircraft away from the current flight path by not more than 45 ^{o} before the transfer of control.

Note: The transferring unit/sector remains responsible within its Area of Responsibility for separation between the transferred aircraft and other aircraft unknown to the accepting unit/sector, unless otherwise agreed.

A.1.7 **State Aircraft.**

For the purposes of RVSM, only aircraft used in military, customs or police services shall qualify as State aircraft.

A.1.8 **Transfer of Control Point (TCP).**

A TCP is a defined point, located along a flight path of an aircraft, at which the responsibility for providing ATS to the aircraft is transferred from one ATC unit of control position of the next.

A.2 Abbreviations. (Should be review at last)

ABI	Advance Boundary Information	**I**CAO	International Civil Aviation Organization
ACC	Area Control Centre	IFR	Instrument Flight Rules
ACI*	Area of Common Interest	**L**AM	Logical Acknowledge (Message Type Designator)
ACT	Activation Message	LoA*	Letter of Agreement
AIP	Aeronautical Information Publication	LOF*	Logon Forward Message (OLDI)
AoR*	Area of Responsibility	**M**AC*	Message for Abrogation of Coordination (OLDI)
APP	Approach Control	MFC*	Multi Frequency Coding (telephone system)
ATC	Air Traffic Control	**N**AN*	Next Authority Notified Message (OLDI)
ATCA	Air Traffic Control Assistant	NM	Nautical Mile
ATCO	Air Traffic Control Officer	**O**AT	Operational Air Traffic
ATS	Air Traffic Services	OLDI	On Line Data Interchange
CBA*	Cross Border Area	**R**EV*	Revision Message
CDR*	Conditional Route	RTF	Radio Telephony
COP*	Coordination Point	RVSM	Reduced Vertical Separation Minimum
ETO	Estimated Time Over Significant Point	**S**ID	Standard Instrument Departure
FDPS	Flight Data Processing System	SSR	Secondary Surveillance Radar
FIC	Flight Information Centre	STAR	Standard Terminal Arrival Route
FIR	Flight Information Region	**T**SA*	Temporary Segregated Airspace
FMP*	Flow Management Position	TCP	Transfer of Control Point
GAT*	General Air Traffic	**U**IR	Upper flight information region

Note: Abbreviations marked with an * are non-ICAO abbreviations.

A.3 Validity

This Appendix to the LoA takes effect on xxx xxxx xxxx and supersedes previous Appendix to Letter of arrangements between Unit 1 and Unit 2.

Date: Date:

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Authority 1

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Authority 2

Appendix B.

Area of Common Interest.

Unit 1 **Unit 2**

Revision: xxxx
Effective: xx xxxx xxxx
Revised: xxx

Controllers are required to be familiar with the airspace structure and restrictions existing immediately beyond the area of responsibility. This airspace has been called the Area of Common Interest (ACI). The extent to which that airspace will be described will be determined at the level of development of a particular Letter of Agreement. The description of the ACI is a mandatory element of a Letter of Agreement. The ACI, as a minimum, shall contain all of the cross-border ATS Routes.

B.1 Airspace Structure and Classification within the Area of Common Interest.

B.1.1 **Unit 1 FIR/UIR**

Area	Vertical limits	Airspace Classification

B.1.2 **Unit 1 FIR/UIR**

Area	Vertical limits	Airspace Classification

B.2 Sectorisation within the Area of Common Interest.

The sectorisation within the ACI is shown in Attachment 1 of Appendix B.

B.3 Special Areas within the Area of Common Interest.

This section should describe the special areas within the area of common interest

B.3.1 **Areas for Cross-Border Provision of ATS defined with other ATS Units within the ACI.**

B.3.2 **Other Areas.**

Those areas that can directly influence the exchange of traffic, such as CBAs, TSAs, AMC-manageable Restricted or Danger Areas and Prohibited Areas, shall be depicted here.

B.4 Non-published Co-ordination Points.

COPs that are not related to significant points published in relevant AIPs

COP	Coordinate

B.5 Validity

This Appendix to the LoA takes effect on xxx xxxx xxxx and supersedes previous Appendix to Letter of arrangements between the Unit 1 and Unit 2.

Date: Date:

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Title
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Attachment 1 of Appendix B

Sectorisation.

A Map detailing the sectors boundaries shall be added

Not to scale

UNIT 1 LOGO UNIT 2 LOGO

Appendix C (1).

Exchange of Flight Data.
(With automatic data exchange)

Unit 1 **Unit 2**

Revision: xxxx
Effective: xx xxxx xxxx
Revised: xxx

C.1 General.

C.1.1 Basic Flight Plans.

Basic flight plan data should normally be available at both ATS Units.

C.1.2 Current Flight Plan Data.

Messages, including current flight plan data, shall be forwarded by the transferring ATS unit to the accepting ATS unit either by automatic data exchange or by telephone to the appropriate sector/position.

C.1.2.1 Automatic Data Exchange.

ABI/ACT/LAM/PAC/REV/MAC messages are exchanged between the two ATS units in accordance with Attachment 1 to Appendix C.

C.1.2.2 Verbal Estimates.

For conditions that are not supported by the automatic data exchange, verbal estimates will be exchanged.

A verbal estimate shall be passed to the appropriate sector at the accepting ATS unit at least value minutes prior, but not earlier than 30 minutes before the aircraft is estimated to pass the transfer of control point.

A verbal estimate shall contain:

a) Callsign.

Note: To indicate that the flight plan is available, the accepting ATS unit should state aircraft type and destination after having received the callsign.

b) SSR code:

Note: Normally, the notification of a SSR code indicates that the selection of that code by the aircraft was verified.

c) ETO for the appropriate COP as laid down in Appendix D to this LoA.

d) Cleared level, specifying climb or descent conditions if applicable, at the transfer of control point.

Requested level if different from cleared level.

e) Other information, if applicable.

Normally, verbal estimates will not be passed in parallel with ACT messages.

In all cases, verbally passed data shall take precedence over data exchanged automatically.

C.1.2.3 Failure of Automatic Data Exchange.

In the event of a failure which prevents the automatic transfer of data, the Supervisors shall immediately decide to revert to the verbal exchange of estimates.

After recovery from a system failure, the Supervisors shall agree as to when they will revert to automatic data exchange.

C.1.3 **Non-availability of Basic Flight Plan Data.**

If the accepting ATS unit does not have basic flight plan data available, additional information may be requested from the transferring ATS unit to supplement the ACT message or a verbal estimate.

Within the context of RVSM, such additional information should include:

a. the RVSM approval status of the aircraft; and
b. whether or not a non-RVSM approved aircraft is a State aircraft.

C.1.4 **Revisions.**

Any significant revisions to the flight data are to be transmitted to the accepting ATS unit.

Time differences of value minutes or more are to be exchanged.

Any levels which different than describe in Appendix D of this LOA are subject to an Approval Request.

C.1.5 **Expedite Clearance and Approval Requests.**

Whenever the minimum time of value minutes for a verbal estimate, or those prescribed in Attachment 1 to Appendix C for ACT messages, cannot be met, either an expedite clearance request, an approval request (*or a PAC)*, as appropriate, shall be initiated.

C.2 Means of Communications and their Use.

UNIT 1 LOGO UNIT 2 LOGO

C.2.1 **Equipment.**

The following lines are available between Unit 1 and Unit 2:

Line Type	Amount	Additional Information
Data Line		
Telephone Lines		

"Additional Information" column should indicate if telephone lines meet the requirements for Direct Controller-Controller Voice Communication (DCCVC) or Instantaneous Direct Controller-Controller Voice Communication (ICCVC)

C.2.2 **Verbal Co-ordination.**

All verbal communications between non-physically adjacent controllers should be terminated with the initials of both parties concerned.

Exchange of flight plan data, estimates and control messages by voice shall be carried out in accordance with the following tables:

C.2.2.1 Messages from Unit 1 to Unit 2.

Receiving Sector/COPs	Message	Position
Sector Name COPs	Flight Plan Data and Estimates	
	Control Messages, Expedite Clearances, Approval Requests and Revisions	
	Surveillance Co-ordination	

C.2.2.2 Messages from Unit 2 to Unit 1.

Receiving Sector/COPs	Message	Position
Sector Name COPs	Flight Plan Data and Estimates	
	Control Messages, Expedite Clearances, Approval Requests and Revisions	
	Surveillance Co-ordination	

C.3 Failure of Ground/Ground Voice Communications.

C.3.1 Fall-Back Procedures for Co-ordination.

To mitigate the effects of failures of direct speech circuits, both parties will establish and maintain dial-up facilities via PABX and ATC Voice Communications Systems (VCS) as follows:

Sector Name Tel Number (For Both Units)

Stand-alone telephones with auto-dial facilities will be maintained as a second level of fall-back to cover the event of failure of PABX or VCS:

Sector Name Tel Number (For Both Units)

C.3.2 Alternate Fall-Back Procedures for Co-ordination.

In case of communications failure where the alternatives described in paragraph C.3.1 above are not available or practicable, pilots shall be instructed, at least 5 minutes prior to the transfer of control point, to pass flight data on the appropriate frequency of the accepting ATS unit for the purpose of obtaining an ATC entry clearance from the accepting ATS unit.

If the accepting ATS unit cannot issue an entry clearance to the pilot upon his initial contact, the pilot shall be instructed to inform the transferring ATS unit accordingly via RTF.

The transferring ATS unit shall hold the aircraft within its AoR and after a minimum of 10 minutes instruct the pilot to re-establish RTF contact with the accepting ATS unit.

This procedure shall be repeated until an onward clearance has been obtained from the accepting ATS unit.

C.4 Validity

This Appendix to the LoA takes effect on xxx xxxx xxxx and supersedes previous Appendix to Letter of arrangements between the Unit 1 and Unit 2.

Date: Date:

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Name
Title
Authority 1

Name
Title
Authority 2

UNIT 1 LOGO UNIT 2 LOGO

Attachment 1 to Appendix C (1)

Automatic Data Exchange.

ABI/ACT/LAM messages are exchanged between the two ATS units in accordance with the table below:

Messages	COPs	Time and/or Distance Parameters	
		Messages from Unit 1 To Unit 2	Messages from Unit 1 To Unit 2
ABI			
ACT			
LAM			
REV			
PAC			
MAC			
LOF			
NAN			

UNIT 1 LOGO UNIT 2 LOGO

Appendix C (2).

Exchange of Flight Data.
(Without automatic data exchange)

Unit 1 **Unit 2**

Revision: xxxx
Effective: xx xxxx xxxx
Revised: xxx

C.1 General.

C.1.1 Basic Flight Plans.

Basic flight plan data should normally be available at both ATS Units.

C.1.2 Current Flight Plan Data.

Messages, including current flight plan data, shall be forwarded by the transferring ATS unit to the accepting ATS unit by telephone to the appropriate sector/position.

C.1.2.1 Verbal Estimates.

A verbal estimate shall be passed to the appropriate sector at the accepting ATS unit at least value minutes prior, before the aircraft is estimated to pass the transfer of control point.

A verbal estimate shall contain:

a) Callsign.

Note: To indicate that the flight plan is available, the accepting ATS unit should state aircraft type and destination after having received the callsign.

b) SSR code:

Note: Normally, the notification of a SSR code indicates that the selection of that code by the aircraft was verified.

c) ETO for the appropriate COP as laid down in Appendix D to this LoA.

d) Cleared level, specifying climb or descent conditions if applicable, at the transfer of control point.

Requested level if different from cleared level.

e) Other information, if applicable.

C.1.3 Non-availability of Basic Flight Plan Data.

If the accepting ATS unit does not have basic flight plan data available, additional information may be requested from the transferring ATS unit to supplement verbal estimate.

Within the context of RVSM, such additional information should include:

a. the RVSM approval status of the aircraft; and
b. whether or not a non-RVSM approved aircraft is a State aircraft.

C.1.4 Revisions.

Any significant revisions to the flight data are to be transmitted to the accepting ATS unit.

Time differences of value minutes or more are to be exchanged.

Any levels which different than describe in Appendix D of this LOA are subject to an Approval Request.

C.1.5 **Expedite Clearance and Approval Requests.**

Whenever the minimum time of value minutes for a verbal estimate, cannot be met, either an expedite clearance request, an approval request, as appropriate, shall be initiated.

C.2 Means of Communications and their Use.

C.2.1 **Equipment.**

The following lines are available between Unit 1 and Unit 2:

Line Type	Amount	Additional Information
Telephone Lines		

"Additional Information" column should indicate if telephone lines meet the requirements for Direct Controller-Controller Voice Communication (DCCVC) or Instantaneous Direct Controller-Controller Voice Communication (ICCVC)

C.2.2 **Verbal Co-ordination.**

All verbal communications between non-physically adjacent controllers should be terminated with the initials of both parties concerned.

Exchange of flight plan data, estimates and control messages by voice shall be carried out in accordance with the following tables:

C.2.2.1 Messages from Unit 1 to Unit 2.

Receiving Sector/COPs	Message	Position
Sector Name COPs	Flight Plan Data and Estimates	
	Control Messages, Expedite Clearances, Approval Requests and Revisions	
	Surveillance Co-ordination	

C.2.2.2 Messages from Unit 2 to Unit 1.

Receiving Sector/COPs	Message	Position
Sector Name COPs	Flight Plan Data and Estimates	
	Control Messages, Expedite Clearances, Approval Requests and Revisions	
	Surveillance Co-ordination	

C.3 Failure of Ground/Ground Voice Communications.

C.3.1 **Fall-Back Procedures for Co-ordination.**

To mitigate the effects of failures of direct speech circuits, both parties will establish and maintain dial-up facilities via PABX and ATC Voice Communications Systems (VCS) as follows:

Sector Name Tel Number (For Both Units)

Stand-alone telephones with auto-dial facilities will be maintained as a second level of fall-back to cover the event of failure of PABX or VCS:

Sector Name Tel Number (For Both Units)

C.3.2 **Alternate Fall-Back Procedures for Co-ordination.**

In case of communications failure where the alternatives described in paragraph C.3.1 above are not available or practicable, pilots shall be instructed, at least 5 minutes prior to the transfer of control point, to pass flight data on the appropriate frequency of the accepting ATS unit for the purpose of obtaining an ATC entry clearance from the accepting ATS unit.

If the accepting ATS unit cannot issue an entry clearance to the pilot upon his initial contact, the pilot shall be instructed to inform the transferring ATS unit accordingly via RTF.

The transferring ATS unit shall hold the aircraft within its AoR and after a minimum of 10 minutes instruct the pilot to re-establish RTF contact with the accepting ATS unit.

This procedure shall be repeated until an onward clearance has been obtained from the accepting ATS unit.

UNIT 1 LOGO UNIT 2 LOGO

C.4 Validity

This Appendix to the LoA takes effect on xxx xxxx xxxx and supersedes previous Appendix to Letter of arrangements between the Unit 1 and Unit 2.

Date: Date:

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Authority 1

Name
Title
Authority 2

UNIT 1 LOGO UNIT 2 LOGO

Appendix D.

Procedures for Co-ordination.

Unit 1 **Unit 2**

Revision: xxxx
Effective: xx xxxx xxxx
Revised: xxx

D.1 General Conditions for Acceptance of Flights.

D.1.1 Co-ordination of flights shall take place by reference to the coordination point (COP) and in accordance with the appropriate levels specified for the relevant route (see paragraphs D.2 and D.3).

D.1.2 Flights shall be considered to be maintaining the co-ordinated level at least (value) prior to transfer of control point unless climb or descent conditions have been clearly stated by use of crossing conditions in the *PAC*/ACT(OLDI) or by verbal co-ordination, except if otherwise described in paragraphs D.2 or D.3.

D.1.3 If the accepting ATS unit cannot accept a flight offered in accordance with the conditions specified above, it shall clearly indicate its inability and specify the conditions under which the flight will be accepted.

D.1.4 For any proposed deviation from the conditions specified in this Appendix (e.g. COP, route or level) the transferring unit shall initiate an Approval Request.

D.1.5 The accepting ATS unit shall not notify the transferring ATS unit that it has established ground-air communications with the transferred aircraft unless specifically requested to do so. The Accepting Unit shall notify the transferring Unit in the event that communication with the aircraft is not established as expected.

Reference to: ICAO Doc 4444, Chapter 10, Paragraph 10.1.2.4.3:

D.2 ATS-Routes, Co-ordination Points and Level Allocation.

Available ATS-routes, COPs to be used and level allocation to be applied, unless otherwise described in paragraph D.3, are described in the tables below.

D.2.1 **Flights from Unit 1 to Unit 2.**

D.2.1.1 **General**

D.2.1.1.1 All information regarding transfer procedures shall be included.

ATS-Route	COP	Receiving Sector	Level Allocation	Special Conditions

D.2.2 **Flights from Unit 2 to Unit 1.**

D.2.2.1. **General**

D.2.2.1.1 Same shall be applied.

ATS-Route	COP	Receiving Sector	Level Allocation	Special Conditions

D.3 Special Procedures.

All special procedures which cannot be accommodated in the "Special Conditions" column of paragraph D.2 shall be outlined in this section

D.3.1 **Flights from Unit 1 to Unit 2.**

D.3.2 **Flights from Unit 2 to Unit 1.**

D.4 Co-ordination of Status of Special Areas in the Area of Common Interest.

Both ATS units shall keep each other advised on any changes of the activation times of CDRs and of activation times for the following CBAs, TSAs and AMC-manageable restricted or danger areas:

D.4.1 Unit 1 shall inform Unit 2 about changes for the following areas:

D.4.2 Unit 2shall inform Unit 1 about changes for the following areas:

UNIT 1 LOGO UNIT 2 LOGO

D.5 VFR flights.

D.5.1 ***Flights from Unit 1 to Unit 2.***

D.5.2 ***Flights from Unit 2 to Unit 1.***

D.6 Validity

This Appendix to the LoA takes effect on xxx xxxx xxxx and supersedes previous Appendix to Letter of arrangements between the Unit 1 and Unit 2.

Date: Date:

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Title
Authority 1

Name
Title
Authority 2

UNIT 1 LOGO UNIT 2 LOGO

Appendix E

Transfer of Control and Transfer of Communications.

Unit 1 **Unit 2**

Revision: xxxx
Effective: xx xxxx xxxx
Revised: xxx

In order to optimize the provision of ATS, it is recommended that the Transfer of Communication takes place before the Transfer of Control, at a point/time/distance as agreed upon between the transferring and accepting ATS Units.

E.1 Transfer of Control.

The transfer of control takes place at the AoR-boundary, unless otherwise specified in paragraph E.3.

E.2 Transfer of Communications.

E.2.1 The transfer of communications shall take place not later than *(time, distance or level parameter)*, and not sooner than *(time, distance or level parameter)* before the transfer of control and as specified in paragraph E.3, unless otherwise co-ordinated.

A parameter (time, distance or level) should be specified for the transfer of communications, whenever it is operationally significant. (e.g. for protection of a communication channel).

E.2.2 **Frequencies**

E.2.2.1 Unit 1

Sectors	Frequencies	
	Primary	Secondary

E.2.2.2 Unit 2

Sectors	Frequencies	
	Primary	Secondary

E.3 Specific Points for Transfer of Control and Transfer of Communications.

ATS Route	Transfer of Control Point	Transfer of Communications
	Unit 1 to Unit 2	Unit 2 to Unit 1

UNIT 1 LOGO UNIT 2 LOGO

E.4 Validity

This Appendix to the LoA takes effect on xxx xxxx xxxx and supersedes previous Appendix to Letter of arrangements between the Unit 1 and Unit 2.

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Authority 1

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Title
Authority 2

UNIT 1 LOGO UNIT 2 LOGO

Appendix F.

ATS Surveillance Based Co-ordination Procedures.

Unit 1 **Unit 2**

Revision: xxxx
Effective: xx xxxx xxxx
Revised: xxx

F.1 General

F.1.1. Transfer of identification and transfer of control between Unit 1 and Unit 2 will be subject to the serviceability of the respective surveillance systems and two-way direct speech facilities between the controller working positions.

F1.2 In case of any doubt about the identity of an aircraft, nothing in the provisions of this Appendix, prevents the use of others methods for the identification of an aircraft

F.2 Transfer of Aircraft Identification

Subject to the surveillance technology available to both units concerned, the transfer of identification should be effected preferably by one of the methods described below:

- *Designation of the position indication by automated means, provided that only one position indication is thereby indicated and there is no possible doubt of correct identification;*
- *Notification of the aircraft discrete SSR code;*
- *Notification that the aircraft identification transmitted by a Mode S equipped aircraft has been verified;*
- *Notification that the aircraft identification transmitted by an ADS B equipped aircraft has been verified.*

F.2.1 Transfer of aircraft identification between Unit 1 and Unit 2 is normally performed by [*one or more methods for the transfer of identification*].

It is recommended that in cases when multiple surveillance technologies are available to both ATS units concerned, paragraph F2.1 should illustrate one or more preferred methods for the transfer of aircraft identification, the conditions in which those apply and the alternatives to be used when the conditions are not met.

For example, at an interface between two ATS units using radar Mode S and MSSR the transfer of identification should normally be performed:

- *by notification of A1000 indicating that the Mode S aircraft identification feature transmitted by the transponder has been verified;*
- *or, in case that the aircraft identification is not correct or has not been verified or the aircraft is not Mode S equipped:*
- *by notification of the aircraft discrete SSR code.*

F.2.2 When discrete SSR codes are used for transfer of identification, they shall be assigned in accordance with ORCAM.

F.2.3 Any change of SSR code by the accepting ATS Unit may only take place after the transfer of control point.

F.2.4 The accepting ATS Unit shall be notified of any observed irregularity in the operation of SSR transponders or ADS-B transmitters.

Such irregularities should cover at least the following cases:

- *transponders transmitting erroneous aircraft identification;*
- *transponders transmitting SSR codes different then the selection of which have been confirmed by the pilots;*
- *transponders transmitting erroneous Mode C information.*

F.3 Transfer of Control.

F.3.1 All traffic must be transferred "clean" – i.e. clear of all conflicting traffic under control of the transferring unit.

F.3.2 Where separation is based on the use of surveillance as per ICAO DOC 4444, a minimum of 5NM shall be used during transfer.

F.3.3 Transfer of identification of IFR flights shall be accomplished in accordance with ICAO DOC 4444.

F.3.4 If it becomes necessary to reduce or suspend transfers of control, a value prior notification shall be observed, except in emergency situations.

F.3.5 A minimum distance of **value** NM to the boundary line of responsibility shall be observed when vectoring aircraft, except when a transfer of radar control has previously been coordinated.

F.3.6 **Transfer of Control without systematic use of the bi-directional speech facilities (*Silent Transfer of Control)***

F.3.6.1 Transfer of control of IFR flights without voice coordination will be in accordance with ICAO DOC 4444 Chapter 8 provided that:

a) Value surveillance in trail spacing exists, and is constant or increasing.

b) Value minutes notice, when possible, is required for an increase in in-trail spacing.

Note: *"Transfer" is defined as transfer of communications and control.*

F.3.6.2 The transferring controller shall inform the accepting controller of any level, speed or vectoring instructions given to aircraft prior to its transfer and which modify its anticipated flight progress at the point of transfer.

Note: When using Mach-number speed control, pilots concerned shall be instructed to report their assigned mach-number to the accepting ATS Unit upon initial contact.

F.3.6.3 The accepting controller may terminate the silent transfer of control at any time, normally with an advance notice of value minutes.

UNIT 1 LOGO UNIT 2 LOGO

F.3.7 **Transfer of Control with use of the bi-directional speech facilities.**

Transfer of control may be effected with the use of bi-directional speech facilities, provided the minimum distance between the aircraft does not reduce to less than [*value to be specified*] NM, and:

- identification has been transferred to or has been established directly by the accepting controller;
- the accepting controller is informed of any level, speed or vectoring instructions applicable to the aircraft at the point of transfer;
- communication with the aircraft is retained by the transferring controller until the accepting controller has agreed to assume responsibility for providing ATS surveillance service to the aircraft. Thereafter, the aircraft should be instructed to change over to the appropriate frequency and from that point is the responsibility of the accepting controller.

F.4 Validity

This Appendix to the LoA takes effect on xxx xxxx xxxx and supersedes previous Appendix to Letter of arrangements between the Unit 1 and Unit 2.

Date: Date:

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Name
Title
Authority 1

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Title
Authority 2

UNIT 1 LOGO UNIT 2 LOGO

Appendix G.

Air Traffic Flow Management

Unit 1 **Unit 2**

Revision: xxxx
Effective: xx xxxx xxxx
Revised: xxx

G.1 General

G.1.1 This Appendix to the Letter of Agreement (LOA) between the Unit 1 and Unit 2 sets out the details of tactical Air Traffic Flow Management (ATFM) measures for application at times of traffic congestion.

G.1.2 Only tactical ATFM operations will be implemented.

G.1.3 The accepting unit determines the flow rate for transfer.

G.1.4 The general provisions contained in ICAO Appendix 11 and Doc 4444 shall apply to handling of traffic subject to flow control.

G.2 ATFM Procedures

G.2.1 Flow control measures shall, when possible, be implemented in such a manner as to avoid affecting flights already airborne.

G.2.2 **Notification**

The Unit 1 shall notify Unit 2 not less than value minutes prior to the time ATFM measures will affect departing aircraft.

Unit 2 shall inform the Unit 1 about flights which have already started and flight planned on affected ATS Routes.

The notification shall detail the ATS Routes and levels being subject to ATFM as well as the expected duration.

G.2.3 **Implementation**

The accepting unit shall, to the widest possible extent, address limitations in capacity for given routes or destinations by specifying restrictions on available levels and longitudinal separation to enable the transferring unit to forecast delays and plan traffic flows accordingly.

G.3 Reporting

Flow reporting is required for all ATFM measures.

UNIT 1 LOGO UNIT 2 LOGO

G.4 Validity

This Appendix to the LoA takes effect on xxx xxxx xxxx and supersedes previous Appendix to Letter of arrangements between the Unit 1 and Unit 2.

Date: Date:

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Title
Authority 1

Name
Title
Authority 2

UNIT 1 LOGO UNIT 2 LOGO

Appendix H.

Contingency Procedures

Unit 1 **Unit 2**

Revision: xxxx
Effective: xx xxxx xxxx
Revised: xxx

H. 1 **General**

H.1.2 In case of technical or catastrophic outage resulting in the disruption of the provision of ATS at Unit 1 or at Unit 2, the adjacent coordinating partners are expected to assist the failing ATS-unit as far as possible in order to ensure the safe evacuation of air traffic from the AoR of the failing ATS-unit.

H.1.3 In case of contingency the regulations of this chapter take precedence over the respective provisions of Appendices A to F to this LoA.

H.1.4 In case of activation of contingency plans ATSU's should send the associated Contingency NOTAM.

H.1.5 Contingency phases

Phase 1 - Immediate Action (30 min)
A dangerous situation has been identified. Focuses on the safe handling of aircraft in the airspace of failing unit, using all technical means still operationally available.

Phase 2 - Short/ Medium Term Actions (< 48 hours)
Focused on stabilising the situation and, if necessary, preparing for longer term contingency agreements.

Phase 3 - Initiation of the option
Content depend on the strategy considered. For instance, action taken in the case of "Relocation" – starts when stuff of the failing unit arrives at the aiding unit.

Phase 4 - Optimisation
The aim of Phase 4 is to optimize capacity gradually up to maximum potential within published or reduced ICAO route and sectorisation structure in line with previously agreed end-user and regulator expectation.

Phase 5 - Recovery
The aim of Phase 5 is to revert back to the original unit and working position in a safe and orderly manner.

H.1.6 Phase 1 lasts approximately 30 minutes. Immediate Action can overlap with Phase 2.
H.1.7 The passage from one phase to another is possible directly from any Contingency Phase.

H.2 Disruption of the provision of ATS at Unit 1

H.2.1 Contingency Phase 1- Immediate Action

When the operational status of Unit 1 becomes impaired to such an extent, that ATS can no longer be provided, the Unit 1 Supervisor shall initiate the immediate actions to be taken in Phase 1 of the Unit 1 Contingency Plan.

H.2.1.1 Evacuation of Unit 1 AoR

H.2.1.1.1 If necessary and possible, measures shall be agreed in order to ensure the safe evacuation of all controlled air traffic from the AoR of Unit 1.

H.2.1.1.2 When the operations of Unit 1 have ceased and all traffic has been transferred to the appropriate agency, the Supervisor in charge of operations shall declare Contingency Phase 1 for Unit 1.

H.2.1.1.3 From this time on:

- the AoR of Unit 1 shall be called the Contingency Area (CA) until full serviceability of Unit 1 is recovered,
- the CA is a No-Fly-Zone, entry is prohibited until contingency Phase 1 is activated,
- Phraseology to be used: *Unit 1* ***is out of service; stop ALL entries into the Contingency Area (CA), start evacuation of the CA.***

H.2.1.2 Delegation of Unit 1 AoR

(*As appropriate)*

The delegation of Unit 1 AoR is shown in Attachment 1 of Appendix H.

H.2.1.3 Simplified route structure

(*As appropriate)*

H.2.1.4 Contingency Flight Level Allocation System - CFLAS

(*As appropriate)*

H.2.1.5 Contingency Contact Point (CCP) Unit 1

(*As appropriate)*

H.2.2 Contingency Phase 2- Short/Medium term actions

Appropriate associated Phase 1 actions as described in H.2.1.2 to take place.

UNIT 1 LOGO UNIT 2 LOGO

H.2.3 **Contingency Phase 3 – Initiation of the option**

H.2.3.1 In Contingency Phase 3 Unit 1 re-establishes the provision of ATS within its AoR by combining ATC sectors to contingency sectors. These Contingency sectors will be re-located to Unit 1 emergency sector.

H.2.3.2 The Contingency Sectors will correspond to existing sectors at Unit 1 ACC:

(As appropriate)	*To*	*Unit 1 Contingency Sector 1*

H.2.3.3 Activation / Deactivation

Unit 1 Contingency Contact Point shall inform the Supervisor Unit 2 about the activation and deactivation of the Contingency Sectors.

H.2.3.4 ATFM Procedures

Necessary ATFM-measures to be applied during Contingency Phase 3 will be initiated by the Unit 1 Supervisor.

H.2.3.5 Exchange of Flight Data

(*As appropriate)*

H.2.3.6 Control Procedures

H.2.3.6.1 Deviations from published ATS-routes shall be coordinated only to prevent dangerous situations or in case of emergencies.

H.2.3.6.2 Separation minima between succeeding aircraft on transfer shall be a minimum of value constant or increasing.

H.2.3.7 Contingency sectors and communications

Unit 1 Contingency Sectors	**Message**	**Position**	**Phone/ Frequency**
	Flight Plan Data and Estimates	ATCA	
	Control Messages, Expedite Clearances, Approval Requests and Revisions	ATCO	
	Surveillance Co-ordination	ATCO	

H.2.3.8 Voice Communication Systems

All coordination partners of Unit 1 shall make sure that they are able to reach the Unit 1 contingency working positions via prescribed phone lines, taking into consideration that Unit 1 is completely off, including the technical systems. Public Phone shall be used as back up system.

H.2.3.9 Callsign

Telephone call sign for Unit 1 in case of contingency: Unit 1 + *name of working position* (e.g. North)

H.2.3.10 SSR Code Assignment

During contingency, Unit 1 may not be able to transfer aircraft on discrete SSR codes, or on code 1000, assigned in accordance with ORCAM.

H.2.4 **Contingency Phase 4 – Optimisation**

Appropriate associated Phase 3 actions to take place.

H.2.5 **Contingency Phase 5 – Long-term Response and Recovery**

H.2.5.1 Unit 1 will inform Unit 2 of intention to "Normal" operations and will co-ordinate the time at which normal operation will be resumed.

H.2.5.2 Once Unit 1 notifies Unit 2 the end of contingency:

- Unit 1 and Unit 2 will cancel any operational restrictions and will resume the standard ATS.
- Both units will apply the standard operational procedures stated in Appendices A to F of this LoA.

H.3 Disruption of the provision of ATS at Unit 2

H.3.1 **Contingency Phase 1- Immediate Action**

When the operational status of Unit 2 becomes impaired to such an extent, that ATS can no longer be provided, the Unit 2 Supervisor shall initiate the immediate actions to be taken in Phase 1 of the Unit 2 Contingency Plan.

H.3.1.1 Evacuation of Unit 2 AoR

H.3.1.1.1 If necessary and possible, measures shall be agreed in order to ensure the safe evacuation of all controlled air traffic from the AoR of Unit 2.

H.3.1.1.2 When the operations of Unit 2 have ceased and all traffic has been transferred to the appropriate agency, the Supervisor in charge of operations shall declare Contingency Phase 1 for Unit 2.

H.3.1.1.3 From this time on:

- the AoR of Unit 2 shall be called the Contingency Area (CA) until full serviceability of Unit 2 is recovered,
- the CA is a No-Fly-Zone, entry is prohibited until contingency Phase 1 is activated,
- Phraseology to be used: *Unit 2* ***is out of service; stop ALL entries into the Contingency Area (CA), start evacuation of the CA.***

UNIT 1 LOGO UNIT 2 LOGO

H.3.1.2 Delegation of Unit 2 AoR

(*As appropriate)*

The delegation of Unit 2 AoR is shown in Attachment 2 of Appendix H.

H.3.1.3 Simplified route structure

(*As appropriate)*

H.3.1.4 Contingency Flight Level Allocation System - CFLAS

(*As appropriate)*

H.3.1.5 Contingency Contact Point (CCP) Unit 2

(*As appropriate)*

H.3.2 **Contingency Phase 2- Short/Medium term actions**

Appropriate associated Phase 1 actions as described in H.3.1.2 to take place.

H.3.3 **Contingency Phase 3 – Initiation of the option**

H.3.3.1 In Contingency Phase 3 Unit 2 re-establishes the provision of ATS within its AoR by combining ATC sectors to contingency sectors. These Contingency sectors will be re-located to Unit 2 emergency sector.

H.3.3.2 The Contingency Sectors will correspond to existing sectors at Unit 2 are:

(As appropriate)	*To*	*Unit 2 Contingency Sector 1*

H.3.3.3 Activation / Deactivation

Unit 2 Contingency Contact Point shall inform the Supervisor Unit 1 about the activation and deactivation of the Contingency Sectors.

H.3.3.4 ATFM Procedures

Necessary ATFM-measures to be applied during Contingency Phase 3 will be initiated by the Unit 2 Supervisor.

H.3.3.5 Exchange of Flight Data

(*As appropriate)*

H.3.3.6 Control Procedures

H.3.3.6.1 Deviations from published ATS-routes shall be coordinated only to prevent dangerous situations or in case of emergencies.

H.3.3.6.2 Separation minima between succeeding aircraft on transfer shall be a minimum of value constant or increasing.

H.3.3.7 Contingency sectors and communications

Unit 2 Contingency Sectors	Message	Position	Phone/ Frequency
	Flight Plan Data and Estimates	ATCA	
	Control Messages, Expedite Clearances, Approval Requests and Revisions	ATCO	
	Surveillance Co-ordination	ATCO	

H.3.3.8 Voice Communication Systems

All coordination partners of Unit 2 shall make sure that they are able to reach the Unit 2 contingency working positions via prescribed phone lines, taking into consideration that Unit 2 is completely off, including the technical systems. Public Phone shall be used as back up system.

H.3.3.9 Callsign

Telephone call sign for Unit 2 in case of contingency: Unit 2 + *name of working position* (e.g. North)

H.3.3.10 SSR Code Assignment

During contingency, Unit 2 may not be able to transfer aircraft on discrete SSR codes, or on code 1000, assigned in accordance with ORCAM.

H.3.4 **Contingency Phase 4 – Optimisation**

Appropriate associated Phase 3 actions to take place.

H.3.5 **Contingency Phase 5 – Long-term Response and Recovery**

H.3.5.1 Unit 2 will inform Unit 1of intention to “Normal” operations and will co-ordinate the time at which normal operation will be resumed.

H.3.5.2 Once Unit 2 notifies Unit 1 the end of contingency:

- Unit 2 and Unit 1 will cancel any operational restrictions and will resume the standard ATS.
- Both units will apply the standard operational procedures stated in Appendices A to F of this LoA.

UNIT 1 LOGO UNIT 2 LOGO

H.4 Validity

This Appendix to the LoA takes effect on xxx xxxx xxxx and supersedes previous Appendix to Letter of arrangements between the Unit 1 and Unit 2.

Date: Date:

_____ _____

Name
Title
Authority 1

Name
Title
Authority 2

Attachment 1 of Appendix H

Unit 1 Contingency Delegation Map

A Map detailing the sectors boundaries shall be added

UNIT 1 LOGO

UNIT 2 LOGO

Not to scale

Attachment 2 of Appendix H

Unit 2 Contingency Delegation Map

A Map detailing the sectors boundaries shall be added

UNIT 1 LOGO UNIT 2 LOGO

Not to scale

UNIT 1 LOGO UNIT 2 LOGO

APPENDIX I

SAR BI-LATERAL ARRANGEMENTS

To be developed by the SAR Action Group

APPENDIX 5D

ICAO 38th General Assembly

A38-12 - APPENDIX I

Coordination and cooperation of civil and military air traffic

Whereas the airspace is a resource common to both civil and military aviation, and given that many air navigation facilities and services are provided and used by both civil and military aviation;

Whereas the Preamble of the *Convention on International Civil Aviation* stipulates that signatories thereto had "agreed on certain principles and arrangements in order that international civil aviation may be developed in a safe and orderly manner and that international air transport services may be established on the basis of equality of opportunity and operated soundly and economically";

Whereas Article 3 a) of the Convention states that "This Convention shall be applicable only to civil aircraft, and shall not be applicable to state aircraft" and Article 3 d) requires that "contracting States undertake, when issuing regulations for their state aircraft, that they will have due regard for the safety of navigation of civil aircraft";

Recognizing that growing civil air traffic and mission-oriented military air traffic would benefit greatly from a more flexible use of airspace used for military purposes and that satisfactory solutions to the problem of cooperative access to airspace have not evolved in all areas;

Whereas the flexible use of airspace by both civil and military air traffic may be regarded as the ultimate goal, improvement in civil/military coordination and cooperation offers an immediate approach towards more effective airspace management; and

Recalling that the ICAO Global ATM Operational Concept states that all airspace should be a usable resource, any restriction on the use of any particular volume of airspace should be considered transitory, and all airspace should be managed flexibly;

The Assembly resolves that:

1. the common use by civil and military aviation of airspace and of certain facilities and services shall be arranged so as to ensure the safety, regularity and efficiency of civil aviation as well as to ensure the requirements of military air traffic are met;

2. the regulations and procedures established by Member States to govern the operation of their state aircraft over the high seas shall ensure that these operations do not compromise the safety, regularity and efficiency of international civil air traffic and that, to the extent practicable, these operations comply with the rules of the air in Annex 2;

3. the Secretary General shall provide guidance on best practices for civil/military coordination and cooperation;

4. Member States may include, when appropriate, representatives of military authorities in their delegations to ICAO meetings; and

5. ICAO serves as an international forum that plays a role in facilitating improved civil/military cooperation, collaboration and the sharing of best practices, and to provide the necessary follow-up activities that build on the success of the Global Air Traffic Management Forum on Civil/Military Cooperation (2009) with the support of civil/military partners.

Associated practices

1. Member States should as necessary initiate or improve the coordination and cooperation between their civil and military air traffic services to implement the policy in Resolving Clause 1 above.

2. When establishing the regulations and procedures mentioned in Resolving Clause 2, the State concerned should coordinate the matter with all States responsible for the provision of air traffic services over the high seas in the area in question.

3. The Council should ensure that the matter of civil and military coordination and cooperation in the use of airspace is included, when appropriate, in the agenda of divisional and regional meetings, in accordance with Resolving Clauses 3, 4 and 5 above.

APPENDIX 5E

B0 – FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration

Description and purpose

To improve coordination between air traffic service units (ATSUs) by using ATS Interfacility Data Communication (AIDC) defined by the ICAO *Manual of Air Traffic Services Data Link Applications* (Doc 9694). The transfer of communication in a data link environment improves the efficiency of this process particularly for oceanic ATSUs.

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
N	Y	Y	N	Y

Applicability consideration:

Applicable to at least two area control centres (ACCs) dealing with enroute and/or terminal control area (TMA) airspace. A greater number of consecutive participating ACCs will increase the benefits.

B0 – FICE: Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration				
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***	***Remarks***
AMHS capability	*All States*	Indicator: % of States with AMHS capability Supporting metric: Number of States with AMHS capability	70 % of States with AMHS capability by December 2017	Final Targets to be agreed by the CNS SG/6 and MSG/*4*
AMHS implementation /interconnection	*All States*	Indicator: % of States with AMHS implemented (interconnected with other States AMHS) Supporting metric: Number of States with AMHS implemented (interconnections with other States AMHS)	4 States with AMHS interconnected December 2017	Final Targets to be agreed by the CNS SG/6 and MSG/*4*
Implementation of AIDC/OLDI between adjacent ACCs	*All ACCs*	Indicator: % of FIRs within which all applicable ACCs have implemented at least one interface to use AIDC/OLDI with neighboring ACCs Supporting metric: Number of AIDC/OLDI interconnections implemented between adjacent ACCs	70% by December 2017	Final Targets to be agreed by the CNS SG/6 and MSG/*4*

B0 – FRTO: Improved Operations through Enhanced En-Route Trajectories

Description and purpose

To allow the use of airspace which would otherwise be segregated (i.e. special use airspace) along with flexible routing adjusted for specific traffic patterns. This will allow greater routing possibilities, reducing potential congestion on trunk routes and busy crossing points, resulting in reduced flight length and fuel burn.

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
Y	Y	Y	Y	N/A

Applicability consideration:

Applicable to en-route and terminal airspace. Benefits can start locally. The larger the size of the concerned airspace the greater the benefits, in particular for flex track aspects. Benefits accrue to individual flights and flows. Application will naturally span over a long period as traffic develops. Its features can be introduced starting with the simplest ones.

B0 – FRTO: Improved Operations through Enhanced En-Route Trajectories				
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***	***Remarks***
Flexible use of airspace (FUA)	*All States*	Indicator: % of States implementing FUA Supporting metric: number of States implementing FUA	40% by December 2017	Implementation should be based on the published aeronautical information Targets to be agreed by MSG/4
Flexible routing	*All States*	Indicator: % of required Routes that are not implemented due military restrictions (segregated areas) Supporting metric 1: total number of ATS Routes in the Mid Region Supporting metric 2: number of required Routes that are not implemented due military restrictions (segregated areas)	60% by December 2017	Based on published aeronautical information Targets to be agreed by MSG/4

B0 –TBO: Improved Safety and Efficiency through the initial application of Data Link En-Route

Description and purpose
To implement an initial set of data link applications for surveillance and communications in ATC, supporting flexible routing, reduced separation and improved safety.

Main performance impact:

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
N/A	Y	N/A	N/A	Y

Applicability consideration:

Requires good synchronization of airborne and ground deployment to generate significant benefits, in particular to those equipped. Benefits increase with the proportion of equipped aircraft.

Improved Safety and Efficiency through the initial application of Data Link En-Route				
Elements	***Applicability***	***Performance Indicators/Supporting Metrics***	***Targets***	***Remarks***
ADS-C and CPDLC	Muscat Sanaa' (TBC)	Indicator: % of FIRs having implemented data link en-route, as and where required Supporting Metric: Number of FIRs having implemented data link en-route, as and where required	50% by December 2017	List of FIRs to be established through regional air navigation agreement. Targets to be agreed by MSG/4 *Over the oceanic*

APPENDIX 5F

MID ANP, VOLUME I

PART IV - AIR TRAFFIC MANAGEMENT (ATM)

1. INTRODUCTION

1.1 This part of the MID ANP constitutes the agreed regional requirements considered to be the minimum necessary for effective planning and implementation of air traffic management (ATM) facilities and services in the MID Region and complements the provisions of ICAO Standards, Recommended Practices and Procedures (SARPs) related to ATM. It contains stable plan elements related to the assignment of responsibilities to States for the ATM system requirements to be applied within the ICAO MID Region. region(s) in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300) and mandatory requirements related to the ATM facilities and services to be implemented by States in accordance with regional air navigation agreements.

1.2 The dynamic plan elements related to the assignment of States' responsibilities for the implementation of the ATM system and the mandatory requirements based on regional air navigation agreements related to ATM are contained in MID ANP Volume II, Part IV - ATM.

1.3 The MID ANP Volume III contains dynamic/flexible plan elements related to the implementation of air navigation systems and their modernization in line with the ICAO Aviation System Block Upgrades (ASBUs) methodology and associated technology roadmaps described in the Global Air Navigation Plan. The Aviation System Block Upgrades (ASBU) modules are aimed at increasing capacity and improving efficiency of the aviation system whilst maintaining or enhancing safety level, and achieving the necessary harmonization and interoperability at regional and global level. This includes the regionally agreed ASBU modules applicable to the specified ICAO region/sub-region and associated elements/enablers necessary for the monitoring of the status of implementation of these ASBU modules.

Standards and Recommended Practices and Procedures for Air Navigation Services

1.4 The Standards and Recommended Practices (SARPs), Procedures for Air Navigation Services (PANS) and related guidance material applicable to the provision of ATM are contained in:

a) Annex 2 — *Rules of the Air*;

b) Annex 6 — *Operation of Aircraft*;

c) Annex 11 — *Air Traffic Services*;

d) *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM) (Doc 4444);

e) *Procedures for Air Navigation Services — Aircraft Operations* (PANS-OPS) (Doc 8168); and

f) *Regional Supplementary Procedures* (Doc 7030).

2. GENERAL REGIONAL REQUIREMENTS

2.1 The description of the current Flight Information Regions (FIR)/Upper Information Regions (UIR), as approved by the ICAO Council, are contained in **Table ATM I-1** and depicted in the

Charts ATM I-1 and **ATM I-2**, respectively.

2.2 States should ensure that the provision of air traffic services (ATS) covers its own territory and those areas over the high seas for which it is responsible for the provision of those services, in accordance with **Charts ATM I-1** and **ATM I- 2**.

Regional ATS Routes and organized track structures

2.3 PIRGs are responsible for the optimization of the traffic flows through the continuous improvement of the regional ATS route network and organized track systems and implementation of random routing areas and free route airspace in the Region(s). Where applicable, details of the ATS routes within the Region(s) are contained in Volume II.

ICARD Global Database

2.4 The five-letter name-codes assigned to significant points should be coordinated through the ICAO Regional Office(s) and obtained from the ICAO International Codes and Routes Designators (ICARD) Global Database.

Aircraft Identification - SSR Code Assignments

2.5 The management of Secondary Surveillance Radar (SSR) codes is a key element of ATM in order to ensure continuous and unambiguous aircraft identification. The requirements related to the SSR code assignment system used in the MID Region is contained in Volume II.

Performance-based Navigation (PBN)

2.6 MIDANPIRG is responsible for the development of the MID Region PBN Implementation Plan. States' PBN implementation Plans should be consistent with the Regional PBN Plan.

Flexible Use of Airspace

2.7 States should implement civil/military cooperation and coordination mechanisms to enhance the application of the Flexible Use of Airspace concept, which will contribute to more direct routing with a commensurate saving in fuel and associated emissions. States should arrange for close liaison and coordination between civil ATS units and relevant military operational control and/or air defence units in order to ensure integration of civil and military air traffic or its segregation, if required. Such arrangements would also contribute to increasing airspace capacity and to improving the efficiency and flexibility of aircraft operations.

Reduced Vertical Separation Minimum (RVSM)/Regional Monitoring Agencies

2.8 The Middle East Regional Monitoring Agency (MIDRMA) is the designated Regional Monitoring Agency (RMA) responsible for monitoring the height-keeping performance and approval status of aircraft operating at these levels, in order to ensure that the continued application of RVSM meets the agreed regional safety objectives as set out by MIDANPIRG.

3. SPECIFIC REGIONAL REQUIREMENTS

3.1 TBD (if necessary)

Table ATM I-1

FLIGHT INFORMATION REGIONS (FIR)/UPPER INFORMATION REGIONS (UIR) IN THE MID REGION

EXPLANATION OF THE TABLE

Column:

1 Name of the FIR/UIR / Location Indicator according to Doc 7910

2 Description of FIR/UIR lateral limits;

a. Describe separately in the table the limits of the UIRs if they are not similar to the FIRs limits.

3 Remarks — additional information, if necessary.

a. Describe vertical limits if necessary.

FIR/UIR Location Indicator	Lateral limits coordinates	Remarks
1	2	3
Amman	**FIR/UIR Amman** 292125N 0345743E On the Gulf of Aqaba 291102N 360420E 293002N 0363021E 295203N 0364521E 300003N 0373021E 302003N 0374021E 303003N 0380021E 313003N 0370021E 320002N 0390021E TO 320911N 0391206E At Jordan, Saudi Arabia and Iraqi boundaries. Then the point 321349N 0391804E At the Southern corner of the Jordanian-Iraqi boundaries	
Baghdad		
Bahrain	**FIR/UIR Bahrain** 281500.00N 0485200.00E 284400.00N 0494000.00E 270500.00N 0505500.00E 265500.00N 0511000.00E 260400.00N 0535700.00E 254900.00N 0530600.00E 240300.00N 0514700.00E 235816.00N 0514308.00E 240724.00N 0513526.00E 241458.00N 0513526.00E 244247.00N 0513422.00E 243817.00N 0512608.00E 243747.00N 0512421.00E 243731.00N 0512406.00E 243549.00N 0512449.00E 243116.00N 0512154.00E 242907.00N 0511849.00E 242816.00N 0510555.00E 243000.00N 0510000.00E 243243.00N 0505544.00E 244024.00N 0505134.00E 244440.00N 0504842.00E	**FIR** FL145 / SFC Class of airspace: C 4500 FT and above **UIR** UNL / FL 150 Class of airspace:A

FIR/UIR Location Indicator	Lateral limits coordinates	Remarks
1	**2**	**3**
	244543.00N 0504828.00E 244653.00N 0504828.00E 244927.00N 0504804.00E 245244.00N 0504738.00E 245534.00N 0504543.00E 245631.00N 0504438.00E 245927.00N 0504329.00E 250243.00N 0504239.00E 250516.00N 0504101.00E 250758.00N 0503951.00E 251153.00N 0503940.00E 251355.00N 0503918.00E 251522.00N 0503848.00E 251849.00N 0503855.00E 252144.00N 0503818.00E 252336.00N 0503741.00E 252510.00N 0503716.00E 252828.00N 0503653.00E 253111.00N 0503544.00E 253543.98N 0503147.55E 254057.00N 0502607.75E 254227.58N 0502503.18E 254908.47N 0502200.71E 255301.53N 0501806.62E 255709.25N 0501735.44E 260450.10N 0501610.65E 261018.28N 0501852.34E 261514.69N 0501907.80E 262217.45N 0502026.57E 262423.93N 0502218.51E 263148.00N 0502315.00E 263420.00N 0502759.00E 265234.00N 0500855.00E 275000.00N 0490800.00E	
Beirut		
Cairo	**FIR Cairo** ***Northern border** 34 00 00N 024 10 00E – 34 00 00N 027 10 00E – 33 30 00N030 00 00E ***Eastern border** 31 50 00N 033 59 00E – 31 36 00N 034 30 00E then follow the International border to: 29 30 00N 034 55 00E – 29 30 00N 035 00 00E 28 06 00N 034 35 00E to 22 00 00N 038 00 00E ***Southern border** 22 00 00N 038 00 00E – 22 00 00N 025 00 00E ***Western border** 22 00 00N 025 00 00E – 31 40 00N 025 10 00E 34 00 00N 024 10 00E	UNL/GND **Class of airspace:** A –above FL145 D – At or below FL145
Beirut		

FIR/UIR Location Indicator	Lateral limits coordinates	Remarks
1	2	3
Cairo		
Damascus		
Emirates		
Jeddah		
Khartoum		
Kuwait		
Muscat		
Sanaa'		
Tehran		
Tripoli		

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MID ANP, VOLUME II

PART IV - AIR TRAFFIC MANAGEMENT (ATM)

1. INTRODUCTION

1.1 This part of the MID ANP, Volume II, complements the provisions in ICAO SARPs and PANS related to air traffic management (ATM). It contains dynamic plan elements related to the assignment of responsibilities to States for the provision of ATM facilities and services within a specified area in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300); and mandatory requirements related to ATM facilities and services to be implemented by States in accordance with regional air navigation agreements. Such agreement indicates a commitment on the part of the State(s) concerned to implement the requirement(s) specified.

2. GENERAL REGIONAL REQUIREMENTS

Optimization of traffic flows

2.1 The Planning and Implementation Regional Groups (PIRG), through regional air navigation agreement, are responsible for the optimization of the traffic flows through the continuous improvement of the regional ATS route network and organized track systems and implementation of random routing areas and free route airspace in the Region through the set-up of appropriate mechanisms for regional and inter-regional planning and coordination.

2.2 Whenever practicable, States should, in close coordination with operators, establish the most efficient routings.

2.3 The requirements for regional ATS route network, in particular, for ATS routes over the high seas and airspace of undetermined sovereignty, should be agreed upon through regional air navigation agreement.

Note: States' AIPs and other States publications should be consulted for information on the implemented ATS routes.

Aircraft Identification-SSR Code Management

2.4 Within the context of air traffic management (ATM) and the provision of air traffic services (ATS), SSR code management is a key element of ATM to ensure continuous, unambiguous aircraft identification. The number of secondary surveillance radar (SSR) codes is limited and poor management of the assignment of SSR codes results in capacity constraints and aircraft delays. States and air navigation service providers (ANSP) should apply the SSR Code Allocation Plan approved by the MIDANPIRG. The SSR Codes Allocation Plan of the MID Region is addressed in the Specific Regional Requirements of Volume II.

3. SPECIFIC REGIONAL REQUIREMENTS

Working Principles for the Construction of Air Routes

3.1. The ATS routes agreed through regional air navigation agreement are listed in **Table ATM II-MID-1** and reflected in the **Chart ATM II-MID-1**. The routes should be developed

based on the ICAO SARPS and PANS-OPS and PANS-ATM criteria and parameters, the following should be taking into consideration for the management of MID Region ATS route Network:

a) Where possible, routes should be established to increase efficiency, reduce complexity and provide additional benefits to users;

b) separation assurance principles should apply;

c) routes should be established with sufficient separation to operate independently;

d) where possible, routes in a radar environment should be procedurally (laterally) separated;

e) segregated tracks should be established on medium/high density routes and be determined by set criteria;

f) where required, routes should be constructed to support terminal area management procedures, e.g. SID s/STARs and flow management techniques, as applicable;

g) holding patterns should be laterally separated from other tracks, and tolerances captured within a single sector;

h) a maximum of two routes containing high traffic density should be blended at a single point. Inbound tracks should be blended at <90 degrees. Up to three low traffic density routes may be blended at a single point;

i) multiple crossing points involving major traffic flows should be avoided.

j) en-route crossings should be minimized. Where crossings are inevitable, they should, where possible, be established for cruise configuration. Such crossings should occur, wherever possible, within radar coverage;

k) airspace sectorization should take account of the route structure, and workload considerations. If necessary, airspace should be re-sectorized to accommodate changes to air route configuration;

l) routes should be constructed so as to reflect the optimum navigation capabilities of the principle users (e.g. RNAV or conventional);

m) the prime determinant should not be the number of track miles. A small increase in track miles may optimize traffic flows, avoid unpredicted delays or avoid holding requirements. Consideration should also be given to the provision of a range of routes which will permit operators to choose cost-efficient routes over the range of expected seasonal wind patterns;

n) due allowance should be given to existing and future flight data processing (FDP) and radar data processing (RDP) capability (i.e. notification of messages for auto hand-off etc.);

o) periodic safety audit and review process of routes should be conducted to test demand against capacity criteria, and the principles. This should ideally be done in parallel with the annual sectorization review; and

p) routes that can no longer be justified should be deleted.

Table ATM II -1 MID Region ATS Route Network

EXPLANATION OF THE TABLE

Column

1 — *Designator of ATS route and Type (Conventional, RNAV5 or RNAV1 etc.)*

2 — *Significant points defining the ATS routes. Only prominent locations have been listed. Additional points where facilities are provided to complete navigational guidance along a route, but not otherwise marking significant characteristics of the route (change of heading of centre line, intersection with other routes, etc.) have normally not been included. Locations shown in parentheses indicate significant points outside the Region.*

Note 1. — *Not representing the operator's requirements. Operational required route and/or navaids are shown in square brackets ([ ]).*

Note 2. — *Subject to further study. Including the provision of navigation aid coverage.*

Note 3 — *Subject to military agreement.*

Note 4. — *Not acceptable at present.*

Note 5. — *At present, implementation possible only during specific periods (e.g. weekends, nights, etc., as published).*

Note 6. — *At present, implementation of RNAV route only possible above FL 300, or as published.*

Note 7. — *Unidirectional use.*

Note 8. — *For ATS route part thereof is RNAV 1*

Whenever reference to a State is made in Table ATM II-XX in connection with the above notes, the following abbreviations, based on those indicated in Location Indicators (Doc 7910), are used:

HE Egypt
HL Libya
HS Sudan
OB Bahrain

LOWER AIRSPACE		UPPER AIRSPACE	
Designator Type	Significant Points	Designator Type	Significant Points
1	2	1	2
A1	METRU 340000N 0250900E SOKAL 323601N 0273706E KATEX 320701N 0282436E BOPED 312939N 0292655E ALEXANDRIA (NOZ) 311113N 0295701E MENKU 310531N 0301806E CAIRO (CVO) 300532N 0312318E	UA1	METRU 340000N 0250900E SOKAL 323601N 0273706E KATEX 320701N 0282436E 312939N 0292655E RIA (NOZ) 311113N 0295 NKU 310531N 0301806E CAIRO (CVO) 300532N 0312318E
A16	RASDA 330600N 0305 MELDO 320201N 031 BALTIM (BLT 144N 035E DEGDI 311429 CAIR VO) 3 N 0312318E	A16	RASDA 330600N 0305700E MELDO 320201N 03104406E BALTIM (BLT) 313144N 0311035E DEGDI 311429N 0311035E CAIRO (CVO) 300532N 0312318E
A408	(ADDIS ABA GWZ SALEH 140000N 0420000E ORNIS 1416.2N04236.9E HODEIDAH 1446.4N 04259.2E	UA408	(ADDIS ABABA) GWZ SALEH 140000N 0420000E ORNIS 1416.2N04236.9E HODEIDAH 1446.4N 04259.2E
A411	BNINA (BNA) 3207.28N 0201513E NASER 3151.2N 2355.3E LOSUL 314100N 250800E SIDI BARANI (BRN) 313532N 260020E	UA411	BNINA (BNA) 3207.28N 0201513E NASER 3151.2N 2355.3E LOSUL 314100N 250800E SIDI BARANI (BRN) 313532N 260020E

Allocation and Assignment of Secondary Surveillance Radar (SSR) Codes in the MID Region

Objectives of the new code allotment plan (CAP)

3.2. The new code allotment plan (CAP) shall provide States in the MID Region with a means to co-ordinate the use of 4096 secondary surveillance radar (SSR) codes in Mode A/3 in the most efficient and economical manner. *The SSR Codes Allocation Plan of the MID Region is at* **Table ATM II-MID-2.**

3.3. The plan shall foster the early implementation of a method which will ultimately allow an assigned four-digit code to be maintained for the longest possible time during a flight in the MID Region.

General principles to meet the objective

3.4. The detailed principles governing the use of SSR codes in the MID Region are based on the following general principles which are complementary to the world-wide provisions (PANS-RAC, Doc 4444, Part X). These principles provide for a smooth transition from the present use of SSR to that mentioned in paragraph .

3.5. Mode A/3 codes shall be used for A TS purposes only.

3.6. Codes will be allocated to ATS units on the basis of duly justified operational requirements and their number will be established based on the number of aircraft to be handled simultaneously within a specified area and for a determined period of protection during traffic peaks.

3.7. Code requirements will be expressed in terms of complete code series (sixty-four four-digit codes in each series) or specified parts thereof. In special cases such requirements may even cover designated four-digit codes only.

3.8. Codes intended to be used as international transit codes will be allocated to specific ACCs for use within participating areas (PA) consisting of the areas of ATS responsibility of several States.

3.9. Codes intended to be used for domestic purposes will be allotted to States for use by ATS units which require limited geographical protection for such codes only.

Operational and technical factors involved

3.10. The following operating conditions are likely to persist for the lifetime of the new CAP concept:

a) both auto-active and passive SSR decoding equipment will be used for ATS purposes in the MID Region;

b) because of this, comparatively simple code assignment methods like the assignment by reference to ATC sectors will coexist with, and vertically or laterally adjoin, more sophisticated, computer-assisted code assignment methods; and

c) as 4096 code capability in Mode A/3 is a prerequisite for a full application of sophisticated code assignment methods, it appears essential to make this capability a

mandatory requirement for aircraft operating international transit flights. For this reason, an environment of sixty-four code capability is not taken into account in this context.

3.11. For guidance material detailing the requirements for the development of automated SSR code assignment systems, refer to the attachment — Considerations Relevant to the Progressive Sophistication of Treatment of S SR-Derived Data for ATS Purposes.

Permanent code distribution and categories

Distribution of codes

3.12. Certain codes are reserved for special purposes on a world-wide scale. The remaining codes series for use in the region are, in this CAP, divided into two distinct categories: transit codes for international use and domestic codes for national use.

3.13. The number of codes used for international transit purposes has to be relatively high, due to the extended geographical protection required in order to reduce to a minimum the chances of confusion between the identities of two different aircraft assigned the same four-digit code. Sufficient protection must be allowed to prevent interference with affected PAs in neighbouring regions.

3.14. The number of codes used for domestic purposes can be kept relatively small, as these may be repeated in different States, or as the case may be, even within the same State.

3.15. Where required, the allocation possibilities can be increased significantly by dividing specific code series into eight blocks of eight four-digit codes.

Special purpose codes

3.16. Specific codes in certain series are reserved for special purposes as follows:

Series 00 – Code 0000:
Available as a general purpose code for domestic use by any State.[Codes 0001 – 0077 are available for domestic purposes (cf. paragraph 4.2.2)]

Series 20 – Code 2000:
To be used by flights required to set a code without specific ATC instructions when entering an area where SSR coverage is available. [Codes 2001 to 2077 are available for international transit purposes.]

Series 75 – Code 7500:
Reserved for use in the event of unlawful interference. [Codes 7501 to 7577 are available for domestic use subject to specific conditions. (cf. paragraph 4.2.3.)]

Series 76 – Code 7600:
Reserved for use in the event of radio-telephony communication failure. [Codes 7601 to 7677 are available for domestic use subject to specific conditions (cf. paragraph 4.2.3]

Series 77 – Code 7700

Reserved for use in the event of emergencies. [Codes 7701 to 7777 are temporarily unavailable.]

3.17. Code blocks in the series 00 (with the exception of code 0000) are allotted to States for domestic purposes so that every State in the region is allotted two octal blocks of four-digit codes in such a manner that a code duplication is avoided at the State borders.

3.18. States may use discrete codes 7501 to 7577 and 7601 to 7677 for domestic purposes provided that they have ascertained that in the area concerned and in affected adjacent areas:

a) no sixty-four code ground equipment is in operation; and
b) 4096-code ground decoding equipment has the capability of permitting the use of such codes without generating the aural or visual alarms associated with the special purpose codes 7500 and 7600 (cf. Annex 10, Volume I, Part I, 2.5.4).

Transit codes

3.19. Transit codes area allocated to specific area control centres (ACCs) or approach control offices (APPs) for assignment to international transit flights. Aircraft will retain the assigned code beyond national boundaries but not normally beyond MID Region PA (paragraph 4.3.4 c) refers).

3.20. Initially the allotment of transit codes in the MID Region is based on one participating area which includes the following flight information centres/area control centres (FICs/ACCs):

AMMAN	JEDDAH
BAGHDAD	KHARTOUM*
BAHRAIN	KUWAIT
BEIRUT	MUSCAT
CAIRO*	SANA'A
DAMASCUS	TEHRAN
EMIRATES	TRIPOLI

**Note.— FICs/ACCs in the AFI Region which must be included in all SSR code allocation plans for the MID Region because of their geographical location.*

3.21. Transit codes shall be assigned in accordance with the following principles governing the originating region code assignment method (ORCAM):

a) when an aircraft enters the MID Region (either on departure or in flight), it will be assigned a specific four-digit code by the first ATS unit concerned in the region. This code will be selected from a given stock of code series allocated in such a manner that duplication of codes assigned by different centres is prevented within the region;

b) each flight will keep the original code assigned on entering the region for the whole flight time within that region. Appropriate code protection criteria have to be applied in order to avoid duplication by too early reassignment of the same code. Efforts should be made to reduce the "protection period" referred to in paragraph 4.3.4 d) while retaining adequate protection; and

c) normally a code change will be required at the time a flight crosses the MID Region boundary. However, in specific cases and by specific arrangements agreed between the ATS units affected during the continuation of the flight, the assigned code may be retained beyond the MID Region boundary.

3.22. In establishing the number of transit code series, account has been taken of the following factors:

a) the lifetime of the air navigation plan of which SSR is but one element. At present this does not exceed a maximum of seven years;

b) the air traffic forecasts for the MID Region in order to determine the likely growth of air traffic classified as international in the region;

c) the requirement for code series for a given ATC unit is derived from the total number of aircraft requiring assignment of a specific code during the busiest period of activity of that ATC unit;

d) in calculating the required code series in accordance with c) above, a "protection period" of approximately three hours is used, i.e. any specific code assigned to an aircraft by an ATC unit is normally available for re-use after a period of three hours following the initial assignment of the code; and

e) the assignment of a specific code to an aircraft is made once the aircraft in question is ready for departure on a flight, or when the aircraft in flight is expected to come under imminent control. Permanent code assignments based on the flight number or any other systematic distinguishing features cannot as a general rule be accepted because of the wasteful effects on the economy in the use of codes required.

3.23. Common criteria applying to traffic figures will have to be established to assess the number of transit codes required by each ACC or APP in the region. The distribution of transit codes should be done by reference to the portion of peak international flights originating from the ACC or APP and that will be assigned an SSR code. A fix time evaluation of each facility could be used to determine the SSR code requirements.

3.24. All code series allocated to the MID Region must be protected from affected PAs in neighbouring regions.

Domestic codes

3.25. Domestic codes are allocated for use by flights which, throughout their flight, remain within the boundaries for the agreed area of use of such codes (normally within one State). The relevant code series are: 01, 04, 12, 13, 14, 15, 16, 20, 24, 32, 34, 36, 40, 42, 43, 44, 45, 46, 47, 52, 53, 54, 63, 65, 73 and 74. In addition codes 0001 to 0077, 7501 to 7577 and 7601 to 7677 may be available in accordance with the conditions specified in paragraphs 4.2.2 and 4.2.3 respectively.

3.26. Domestic codes should be used so that utmost economy in the number of codes required is achieved. As national requirements vary considerably, no definite rules can at present be established; however, in order to assist States, and in order to facilitate required international co-ordination of use of domestic codes in border areas, the following guidelines are provided.

3.27. As a general rule, codes employed primarily for transit purposes may be used for domestic purposes in those States where a buffer of one FIR exists between the area where the code is

used for transit and that where it is used for domestic purposes. Based on appropriate agreements between the ATC units affected, exceptions to this rule may be made, provided that it is ensured that this will not lead to difficulties.

3.28. With regard to domestic codes used primarily for terminal control purposes (terminal control area (TMA)/APP and ground controlled approach system (GCA)), it is assumed that, unless specified otherwise, the area of operational use of the code concerned corresponds to the area of use of the associated air/ground communication channel.

3.29. Domestic codes used for terminal purposes (TMA/APP and GCA) or used within specified portions of the airspace (sectors) will be ensured protection in these functions. Adjacent States may use such codes for their domestic purposes provided a buffer equal to one sector or a distance of 60 NM between the closest edges of the two areas of use exists.

Monitoring of the plan

3.30. Whilst full implementation of the CAP must inevitably be achieved gradually, it is expected that progressive development of improved ground facilities will allow in future an increasing number of States to adhere to the provisions foreseen in the plan.

3.31. Provisions regarding the progressive implementation of the SSR CAP and its monitoring should be agreed by the MID Region. States expecting to introduce SSR facilities are requested to advise the ICAO regional office as to their intended use of codes at least six months in advance, in order to permit timely accomplishment of any necessary co-ordination.

ABBREVIATIONS AND GLOSSARY OF TERMS

PA = Participating area	An area of specified dimensions comprising the areas of ATS responsibility of several States wherein a four-digit code assigned to a specific aircraft engaged in an international flight is normally retained by this aircraft while operating in that area.
CAP = ICAO SSR Code Allotment Plan	
Region = “MID Region” of ICAO	
ORCAM = Originating region code assignment method	(See paragraph 4.3.3)
Basic code	An SSR identity code containing combinations of A and B pulses only (also replies from a 4 096 code transponder where no C or D pulses are present): (Z1,Z2, (0, 0) with Zi = 0, 1, 2, 7).
Discrete code	An SSR identity code containing all those combinations of A, B, C and D pulses which do not constitute a basic code (cannot be generated by a sixty-four code transponder): (Z1, Z2, Z3, Z4) with Zi = 0, 1, 2, 7) and Z3 + Z4 ? 0.
Four-digit code	An SSR identity code containing combinations of A, B, C and D pulses (any reply generated by a 4 096 code transponder): (Z1, Z2, Z3, Z4) with Zi = 0, 1, 2 ..... 7).

Code series	A group of the sixty-four four-digit codes having the same first two digits.
Code block	A continuous sequence of four-digit codes within a code series. Specific "octal" blocks of eight sequential codes having common first three digits may be identified by reference to the third digit of the full four-digit code (e.g. 0-block = codes XX00 to XX07. Codes 0010 to 0017 may be designated as codes 00 (1), codes 0020 to 0027 as codes 00 (2), etc.).
Code assignment	Distribution of SSR codes to aircraft (cf. *Procedures for Air Navigation Services — Rules of the Air and Air Traffic Services* (PANS-RAC, Doc 4444).
Code allocation	Distribution of SSR codes to services (cf. PANS-RAC).
Code allotment	Distribution of SSR codes to areas or countries (cf. PANS-RAC).
Transit code	A code allocated to a specific ATC unit for assignment to an aircraft engaged in an international flight and which will be retained by this aircraft at least while operating within the related PA.
Domestic code	A code allotted to a specific State for use by a designated ATC unit within that State in relation to flights which remain throughout their operation within the agreed area of use of the code concerned.

Table ATM II-2 - SSR Code Allocation Plan

Code	AMMAN	BAGHDAD	BAHRAIN	BEIRUT	CAIRO	DAMASCUS	EMIRATES	JEDDAH	KHARTOUM	KUWAIT	MUSCAT	SANA'A	TEHRAN	TRIPOLI
0000														
0001-0077									-					-
0100-0177									T					-
0200-0277									-		*	*		-
0300-0377								*	-		*	*		-
0400-0477	D		*	*	*	*	D	*			*	*	*	*
0500-0577	–	–	–	–	–	–	T	–	*	–	–	–	–	
0600-0677	–	–	–	–	–	–	–	–	*	T	–	–	–	
0700-0777	T	–	–	–	–	–	–	–	*	–	–	–	–	
1000-1077	–	T	–	–	–	–	–	–		–	–	–	–	
1101-1177	–	–	–	–	–	–	–	–	-	–	–	–	T	-
1200-1277		*	D		*		D	*	D	*	*	*	*	*
1300-1377			*		*		D	*			*		*	D
1400-1477	*	*	*		D		D	*	-	D			*	-
1500-1577	D	*	*	*		*	*	*	-	*	*		D	-
1600-1677	*	*	D		D		*	*	-	*	*	*	*	-
1700-1777							T		-					-
2001-2077		*	*				*			*	*		D	
2100-2177	–	–	T	–	–	–	–	–		–	–	–	–	
2200-2277	–	–	T	–	–	–	–	–		–	–	–	–	
2300-2377	–	–	–	–	T	–	–	–	-	–	–	–	–	-
2400-2477	D		*		*		D	*	-		*		*	-
2500-2577	–	–	–	T	–	–	–	–		–	–	–	–	
2600-2677	–	–	T	–	–	–	–	–	-	–	–	–	–	-
2700-2777	–	–	–	–	T	–	–	–	-	–	–	–	–	-
3000-3077	–	–	–	–	–	T	–	–	*	–	–	–	–	
3100-3177	–	–	–	–	–	–	–	T	*	–	–	–	–	
3200-3277	*	*	*	*	*	*	*	*	-	*	*	D	D	-
3300-3377	*				D		D	*	-		*	*		-
3400-3477	*	D	*		*	*	D	*	-	*	*		*	-
3500-3577	–	–	–	–	–	–	–	T		–	–	–	–	
3600-3677		*	*				*		-	*	*		D	-
3700-3777	–	–	–	–	–	–	T	–	-	–	–	–	–	-
4000-4077	–	–	–	–	–	–	–	–	-	–	T	–	–	T

Code	AMMAN	BAGHDAD	BAHRAIN	BEIRUT	CAIRO	DAMASCUS	EMIRATES	JEDDAH	KHARTOUM	KUWAIT	MUSCAT	SANA'A	TEHRAN	TRIPOLI
4100-4177	–	–	–	–	–	–	–	–	-	–	–	–	T	-
4200-4277	*	*	*	*	*	*	*	*	-	*	*		D	-
4300-4377	*	*	*	D	*	*	*	D	-	*	*	*		-
4400-4477	*	*	D		D		*	*	-	*	*	*	*	-
4500-4577	*	*	*		*		*	D			*	*		
4600-4677	*	*	*	*	*	D	*	D	-	*	*	*		-
4700-4777	*		*		D		*	*	-		D	*	*	-
5000-5077									-					-
5100-5177	–	–	–	–	–	–	–	–	-	–	–	–	–	-
5200-5277	*	*	*		*		*	D	D		*	*		*
5300-5377		*	D				*	*	D	*	*	*	*	*
5400-5477		*	D				*	*		*	*	*	*	
5500-5577														
5600-5677														
5700-5777	–	–	–	–	–	T	–	–		–	–	–	–	
6000-6077														
6100-6177	–	–	–	–	–	–	–	T	-	–	–	–	–	-
6200-6277							T		-					-
6300-6377		*	*				*	D		*	*		D	
6400-6477	–	–	–	–	–	–	–	–		–	–	–	–	
6500-6577			*				*	*			D	*	*	
6600-6677	–	–	–	–	–	–	–	–		–	T	–	–	
700-6777	–	–	–	–	–	–	–	–		–	–	–	T	
7001-7077	–	–	–	–	–	–	–	–		–	–	T	–	
7100-7177	–	–	–	–	–	–	–	–		–	–	–	–	-
7200-7277											*		*	
7300-7377			*				*	*			D	*	*	
7400-7477	*	D	*			*		*	-	*	*		*	-
7500														
7600 XX														
7700														

APPENDIX 7A

MID REGION SAR AGREEMENT STATUS (ACCs)
June 2014

STATE	CORRESPONDING STATES			REMARKS
BAHRAIN	☐ IRAN ☐ SAUDI ARABIA	☐ KUWAIT ☐ UAE	☐ QATAR	0/5
EGYPT	☒ CYPRUS ☐ JORDAN ☐ SUDAN	☐ GREECE ☒ LYBIA	☐ Israel ☐ SAUDI ARABIA	1/7
IRAN	☐ ARMENIA ☐ BAHRAIN ☐ OMAN ☐ TURKMANISTAN	☐ AZERBAIJAN ☐ IRAQ ☐ PAKISTAN ☐ UAE	☐ AFGHANISTAN ☐ KUWAIT ☐ TURKEY	0/11
IRAQ	☐ IRAN ☒ JORDAN	☐ KUWAIT ☐ SAUDI ARABIA	☐ SYRIA ☐ TURKEY	1/6
JORDAN	☐ EGYPT ☒ IRAQ	☐ ISRAEL ☐ SAUDI ARABIA	☐ SYRIA	1/5
KUWAIT	☐ BAHRAIN ☐ IRAN	☐ IRAQ	☐ SAUDI ARABIA	0/4
LEBANON	☒ CYPRUS	☐ SYRIA		1/2
LIBYA	☐ ALGERIA ☐ CHAD ☐ EGYPT	☐ MALTA ☐ NIGER	☐ SUDAN ☐ TUNIS	0/7
OMAN	☐ INDIA ☐ IRAN	☒ SAUDI ARABIA ☐ PAKISTAN	☐ UAE ☐ YEMEN	1/6
QATAR	☐ BAHRAIN	☐ SAUDI ARABIA	☐ UAE	0/3
SAUDI ARABIA	☐ BAHRAIN ☐ IRAQ ☒ OMAN ☐ UAE	☐ EGYPT ☐ JORDAN ☐ Qatar ☐ YEMEN	☐ ERITREA ☐ KUWAIT ☐ SUDAN	1/11
SUDAN	☐ CENTRAL AFRICAN ☐ CHAD ☐ EGYPT	☐ ERITREA ☐ ETHIOPIA ☐ LIBYA	☐ SAUDI ARABIA ☐ SOUTH SUDAN	0/8
SYRIA	☐ IRAQ ☐ JORDAN	☐ LEBANON ☒ CYPRUS	☒ TURKEY	2/5
UAE	☐ BAHRAIN ☐ IRAN	☐ OMAN ☐ SAUDI ARABIA	☐ QATAR	0/5
YEMEN	☐ DJIBOUTI ☐ ERITREA ☐ ETHIOPIA	☐ INDIA ☐ OMAN ☐ SAUDI ARABIA	☐ SOMALIA	0/7

☒ Agreement Signed ☐ Agreement NOT Signed Signed Agreements / Total No. of required Agreements

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APPENDIX 7B

MID SEARCH AND RESCUE ACTION GROUP
(SAR AG)

A) TERMS OF REFERENCE

1. Develop a simplified MID Region Model for SAR Agreement/Bilateral Arrangements to foster the implementation of Annex 12 provisions related to SAR cooperation in a step-wise approach.

2. Carry out a gap analysis related to the status of implementation of SAR services in the MID Region.

3. Develop necessary recommendations and guidance that would enhance the SAR services in the MID Region:

B) COMPOSITION

The SAR AG will be composed of the following SAR experts:

Bahrain	Mr. Fareed Ibrahim	Head of Search and Rescue Civil Aviation Affairs	Email: fbucheery@caa.gov.bh Fax: (973) 17 329 949 Tel: (973) 17 329 969 Mobile: (973) 3930 9003
Iran	Mr. Faramarz Faramarzpor	SAR Expert in charge Iran Airports Company	Email: farmarzpor@yahoo.com Fax: (98-21) 4454 4107 Tel: (98-21) 4454 4107 Mobile: (98-912) 609 8583
Saudi Arabia	Mr. Fahad Saud Al Harbi	GACA-ATM-SAR	Email: fasalharbi@gaca.gov.sa Tel: (966) 126717717 EXT 1841 Mobile: (966) 505329284
UAE	Mr. Youssif Al Falassi	SAR Inspector Air Navigation & Aerodrome Department GCAA	Email: yalfalasi@gcaa.gov.ae Fax: +971 2 4054406 Tel: +971 2 4054286 Mobile: +971 50 4492843
ICAO	Mr. Elie El Khoury	Regional Officer ATM and SAR ICAO MID Regional Office, Cairo.	Email: ekoury@icao.int Fax: (20) 22674843 Tel: (20) 22674845 ext 104 Mobile(20) 1025133360

C) WORKING ARRANGEMENTS

a) The Action Group shall report to the ATM Sub Group; and

b) The work of the SAR AG shall be carried out mainly through exchange of correspondence, between its Members using all means of communication (email, facsimile, Tel, Teleconferencing, etc).

APPENDXI 7 C

MID REGION SAR POINT OF CONTACT (SPOC) – COSPAS-SARSAT

STATE	SPOC NAME	ADDRESS	EMAIL	TEL	FAX	AFTN	ASS. MCC/ STATE[1]	LAST REVISION	REMARK
Bahrain	RCC ATC Bahrain	Bahrain CAA, Air Navigation Directorate P.O. Box 586 Kingdom of Bahrain	Bahatc@caa.gov.bh	(973) 17321081 17321080	(973) 17321905	OBBISARX	SAMCC Saudi Arabia	16-April-2013	
Egypt	SAR Centre	SAR Centre Almaza Air Base Heliopolis, Cairo, Egypt	jrcc136@afmic.gov.eg mmc@saregypt.net nahedh@tra.gov.eg	(202) 24184537 24184531	(202) 24184537 24184531	HECCYCYX	ALMCC Algeria	22-OCT-2013	TELEX: (91) 21095 RCCC RUN
Iran	RCC Tehran	Civil Aviation Organization SAR Coordination Centre Mehrabad Airport Tehran, Iran	SAR@cao.ir IRAN-SAR@airport.ir rcc.IRAN@airport.ir	(9821) 44544107 44544116 44544060 (9891)2417 6881	(9821) 44544117 44544106	OIIIZRZX	TRMCC Turkey	14-Jan-2013	
Iraq	CENTAF-AUAB CAOC JSRC			(974) 4503452 4364193	(974) 4327382		TRMCC Turkey	29-Sep-2009	
Jordan	RCC ATC Amman	RCC Civil Aviation Authority Amman Airport, Jordan		(9626) 4451672	(9626) 4451667	OJACZQZX	SAMCC Saudi Arabia	16-Apr-2013	
Kuwait	RCC ATC Kuwait	RCC DGCA Kuwait International Airport, P.O.Box 17, Kuwait		(965) 24760463 24762994	(965) 24346515 24346221	OKBKZQZX OKBKNSAR	SAMCC Saudi Arabia	16-Apr-2013	
Lebanon	RCC Beirut	RCC, DGCA Lebanon, Hariri Int'l Airport- Beirut, Lebanon		(961) 1628161	(961) 1628186 1629035	OLBIZQZX	SAMCC Saudi Arabia	16-Apr-2013	
Libya	CAA	CAA, Tripoli Int'l Airport, Libya	info@sar.caa.ly	(218.21) 5632332 4446799	(218.21) 563 0257 360 6868	HLLTYCYX	ALMCC Algeria	16-May-2013	TELEX (218.21) 5632332

[1] Associated COSPAS-SARSAT Mission Control Center / State where it is located

STATE	SPOC NAME	ADDRESS	EMAIL	TEL	FAX	AFTN	ASS. MCC/ STATE[1]	LAST REVISION	REMARK
				3606868					
Oman	RCC Muscat Air Force	RCC, HQ RAFO P.O.Box 730 Central Post Office Muscat Int'l Airport, Oman		(968) 24519209 24519332	(968) 24334776 24338692	OOMSYAYX	SAMCC Saudi Arabia	16-Apr-2013	
Qatar	RCC ATC			(974) 44616332 44651001 44616429	(974) 44622078 44678512	OTBDZTZX	SAMCC Saudi Arabia	16-Apr-2013	
Saudi Arabia	SAMCC	KSA.GACA / Air Navigation services P.O.Box 929 Jeddah 21421 Saudi Arabia	samcc@gaca.gov.sa	(96602) 6150170 6855812 (96650) 4601445	(96602) 6150171 6402855	OEJNJSAR	SAMCC Saudi Arabia	28-Jun-2013	TEL 3 & FAX 2 for Head of SAMCC
Sudan	ACC Khartoum	Khartoum Airport, Sudan		(249.183) 788192 784925	(249.183) 528323	HSSSYCYX	ITMCC Italy	16-Apr-2013	Thuraya +8821655524 296
Syria	RCC ATC	General Civil Aviation Authority		(963.11) 5400540	(963.11) 5400312	OSDIZQZX	SAMCC Saudi Arabia	16-Apr-2013	
UAE	AEMCC	SAR Coordination Center P.O.Box 906 GHQ Armed Forces UAE	aemcc@uae-jrcc.ae	(971.2) 4056144 4496866	(971.2) 4496844	OMADYCYX	AEMCC UAE	23-Sep-2011	
Yemen	RCC Sanaa	RCC Department of Civil Aviation Sanaa, Yemen		(967) 1344673	(967) 1345916	OYSNYCYX	SAMCC Saudi Arabia	16-April-2013	

APPENDIX 7D

MID REGION SAR FOCAL POINTS CONTACT DETAILS

STATE	NAME	TITLE	ADDRESS	EMAIL/AFS	FAX	TEL	MOBILE
Bahrain	ACC Duty Supervisor	ACC Duty Supervisor	Bahrain CAA P.O.Box – 586 Kingdom Of Bahrain	bahatc@caa.gov.bh	+973 17321029	+97317321081 +97317321080	
Egypt	Mr. Ibrahim Khalifa Mahmoud	General Director of Operations Centers & Crisis Management	Ministry of Civil Aviation Cairo - EGYPT	crisar@civilaviation.gov.eg	202 22681371	202 22678548	20124469052
Iran							
Iraq	Ali Muhsin Hashim	Director ATS	ANS Building, BIAP	Atc_iraqcaa@yahoo.com		964 7815762525	964 7815762525
Jordan	Mr. Khalaf Al-Shawabka	Chief Amman TACC and SAR	Queen Alia Airport	kshowbki@yahoo.co.nz	+962 445132	+ 962 4451672	96) 77790 4724
Kuwait							
Lebanon							
Libya							
Oman	RCC HQ RAFO		P.O.Box 722 Muscat P.C. 111, Oman	Hq.rafo.@rafo.gov.om AFS:- OOMSYCYX	+968 24334776	+968 24334211 +968 24334212	

STATE	NAME	TITLE	ADDRESS	EMAIL/AFS	FAX	TEL	MOBILE
Qatar							
Saudi Arabia	Mr. Ahmad B. Altunisi	Manager SAR Head of SAMCC	General Authority of Civil Aviation	jaf-2010@hotmail.com	966-2 671 9041	966-2 671 7717/1840	966-50 460 1445
Sudan							
Syria	Mr. Monif Abdulla	Head of S.A.R. Department Syrian Civil Aviation Authority	Damascus Airport	monif77@hotmail.com	963-11 540 0312	963-11 540 0312	963 932 710351
UAE	UAE ATC Duty Supervisor			atc@szc.gcaa.ae	971 2 599 6850	971 2 599 6969	
Yemen							

APPENDIX 7E

SAFETY RECOMMENDATIONS RELATED TO SAR (AFR 447)

1.To ensure the implementation of SAR coordination plans or regional protocols covering all of the maritime or remote areas for which international coordination would be required in the application of SAR procedures, including in the South Atlantic area	• Annex 12 — Search and Rescue, 3.1.2.1 Recommendation states that Contracting States should, in so far as practicable, **develop common SAR plans and procedures** to facilitate coordination with those of neighboring States. • This element is reviewed as part of the ICAO audit process, where **findings are often reported on the lack of SAR legislation or SAR plans**. • ICAO regional offices hold, from time to time, **regional SAR workshops** where this issue is progressed. • Also, in identifying the priority that needed to be placed on SAR in the APAC Region, APANPIRG established the **Asia/Pacific Regional Search and Rescue Task Force in 2012**. They will deliver a draft regional Search and Rescue Plan in **2015**.
2.To define the framework for the training of SAR operators in its Standards and Recommended practices	• Annex 12, paragraph 2.1.1.3 refers to the need for States **to establish processes to improve service provisio**n, **domestic and cooperative arrangements and training**. • The International Aeronautical and Maritime Search and Rescue (IAMSAR) Manual, Volume II — Mission Co-ordination (Doc 9731), Section 1.8, **provides the guidance on training of SAR operators**. • The extent that this section of the IAMSAR Manual needs to be enhanced is being reviewed during 2013 and 2014 by the ICAO/IMO Joint Working Group (JWG) on SAR.
3.To ensure each Member State has a national point of contact and makes his/her contact information available	• Annex 12, paragraph 3.2.5 requires States to **designate a SAR point of contact** for the receipt of COSPAS-SARSAT distress data. • COSPAS-SARSAT verifies, from time to time, the validity of the SAR point of contact details and reports back to the ICAO-IMO JWG on SAR on their **findings**. • COSPAS-SARSAT and the ICAO regional offices follow up with States accordingly. In addition, **this aspect is reviewed during ICAO audits**. Follow-up of this recommendation will take place at the next ICAO-IMO JWG on SAR. (October 2014)
4. To amend Annex 12 on search and rescue operations so as to encourage Contracting States to equip their search aircraft with buoys to measure drift and to drop them, when these units are involved in the search for persons lost at sea.	This item is being discussed by the ICAO/IMO Joint Working Group (JWG) on SAR, and the **concept is supported**. The JWG will be proposing an amendment to the IAMSAR Manual in 2014 that is expected to be published in 2015/2016

APPENDIX 7F

CONCLUSIONS AND RECOMMENDATIONS
SPECIAL MEETING ON GLOBAL FLIGHT TRACKING
MONTRÉAL, 12-13 MAY 2014

The International Civil Aviation Organization (ICAO), upon the completion of this Special Meeting on Global Flight Tracking of Aircraft, forged consensus among its Member States and the international air transport industry sector on the near-term priority to track airline flights, no matter their global location or destination. Furthermore, the meeting established a framework for future efforts in this regard for the medium and long term.

The meeting concluded that:

NEAR-TERM

a) global tracking of airline flights will be pursued as a matter of priority to provide early notice of and response to abnormal flight behaviour;

b) a DRAFT concept of operations on flight tracking will be developed that includes a clear definition of the objectives of flight tracking that ensures that information is provided in a timely fashion to the right people to support search and rescue, recovery and accident investigation activities, as well as, the roles and responsibilities of all stakeholders;

c) under the ICAO framework, the contribution by the industry through an Aircraft Tracking Task Force (ATTF) will help address the near-term needs for flight tracking;

d) ICAO will consider establishing a short term joint ICAO/IATA advisory group to support the global tracking initiative;

e) airlines will be encouraged to use existing equipment and procedures to the extent possible to support flight tracking pending the outcome of the AATF;

f) in partnership with the Task Force, ICAO will develop guidance material, based on available flight tracking best practices;

g) a FINAL high level concept of operations should be delivered to the ICAO High Level Safety Conference (HLSC 2015, February, Montreal);

h) ICAO should increase its resources allocated to the Search and Rescue in order to improve the effectiveness across national and regional boundaries;

i) ICAO should, in collaboration with a pool of search and rescue experts, identify and address operational search and rescue challenges with implementation of existing Annex 12 provisions, and provide assistance to States, including aiding in the setting of priorities for the mid and long term;

j) ICAO should facilitate the sharing of experience and lessons learned from States that were recently involved in accidents where flight tracking could have facilitated search and rescue efforts to all other States;

k) ICAO should strongly encourage States to regularly run practice exercises involving airlines operation centres, air navigation service providers (ANSPs) and rescue coordination centres (RCCs) to test and verify their ability to respond and coordinate together in an integrated manner to abnormal flight behaviour scenarios;

MID-TERM

l) ICAO performance based provisions should be developed, using a multidisciplinary approach, on flight tracking to support the location of an accident site in a timely manner for the purpose of search and rescue and accident investigation;

m) ICAO performance based provisions addressing flight tracking requirements should be sufficiently flexible to accommodate regional needs and be commensurate to operational situations;

n) ICAO should encourage States and International Telecommunication Union (ITU) to take action, at the earliest opportunity, to provide the necessary spectrum allocations as emerging aviation needs are identified. This includes spectrum for satellite and radio services used for safety of life aviation services. ICAO encourages ITU to place this on the Agenda for the upcoming ITU World Radio Conference 2015;

o) COSPAS-SARSAT should be invited to continue to investigate, within its own program and in partnership with the industry, the means of improving the reliability and utility of emergency locator transmitter (ELTs), particularly in the context of flight tracking during a distress event; and

LONG-TERM

p) ICAO should work in coordination with ITU to develop aviation requirements for network communications associated with remote storage of flight information.

- End -

APPENDIX 7G

MID ANP, VOLUME I

PART VI - SEARCH AND RESCUE (SAR)

1. INTRODUCTION

1.1 This part of the MID ANP constitutes the agreed regional requirements considered to be the minimum necessary for effective planning and implementation of search and rescue (SAR) facilities and services in the MID Region and complements the provisions of ICAO SARPs and PANS related to SAR. It contains stable plan elements related to the assignment of responsibilities to States for the provision of SAR facilities and services within the ICAO MID Region in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300) and mandatory requirements related to the SAR facilities and services to be implemented by States in accordance with regional air navigation agreements.

1.2 The dynamic plan elements related to the assignment of States' responsibilities for the provision of SAR facilities and services and the mandatory requirements based on regional air navigation agreements related to SAR are contained in the MID ANP, Volume II, Part VI – SAR.

Standards and Recommended Practices and Procedures for Air Navigation Services

1.3 The SARPs, PANS and related guidance material applicable to the provision of SAR are contained in:

a) Annex 12 – *Search and Rescue*;
b) Annex 6 — *Operation of Aircraft*;
c) *Procedures for Air Navigation Services — Air Traffic Management* (PANS-ATM) (Doc 4444);
d) *Regional Supplementary Procedures* (Doc 7030); and
e) *International Aeronautical and Maritime Search and Rescue Manual* (Doc 9731-AN/958).

2. GENERAL REGIONAL REQUIREMENTS

2.1 Each Contracting State should ensure that the provision of search and rescue services covers its own territory and those areas over the high seas for which it is responsible for the provision of those services. The description of the current Search and Rescue Regions (SRRs), as approved by the ICAO Council, are contained in **Table SAR I-1** and depicted in the **Chart SAR I-1**. The list of Rescue Coordination Centres (RCCs) and Rescue Sub-centres (RSCs) in the Region(s) are detailed in Volume II.

2.2 The three volumes of the *IAMSAR Manual* (Doc 9731) provide guidance for a common aviation and maritime approach to organizing and providing SAR services. States are invited to use the *IAMSAR Manual* to ensure the availability of effective aeronautical SAR services and to cooperate with neighbouring States.

2.3 States which rely on military authorities and/or other sources for the provision of SAR facilities should ensure that adequate arrangements are in place for coordination of SAR activities between all entities involved.

2.4 Arrangements should be made to permit a call on any national services likely to be able to render assistance on an ad-hoc basis, in those cases when the scope of SAR operations requires such assistance.

3. SPECIFIC REGIONAL REQUIREMENTS

3.1 TBD (if necessary).

TABLE SAR I-1 – SEARCH AND RESCUE REGIONS (SRR) OF THE MID REGION

EXPLANATION OF THE TABLE

Column:

1 Name of the SRR.
2 Description of SRR lateral limits.
3 Additional information, if necessary.

SRR	Lateral limits coordinates	Remarks
1	2	3
Amman	292125N 0345743E On the Gulf of Aqaba 291102N 360420E 293002N 0363021E 295203N 0364521E 300003N 0373021E 302003N 0374021E 303003N 0380021E 313003N 0370021E 320002N 0390021E TO 320911N 0391206E At Jordan, Saudi Arabia and Iraqi boundaries. Then the point 321349N 0391804E At the Southern corner of the Jordanian-Iraqi boundaries	
Baghdad		
Bahrain		
Beirut		
Cairo	**Northern border** 34 00 00N 024 10 00E – 34 00 00N 027 10 00E – 33 30 00N030 00 00E ***Eastern border** 31 50 00N 033 59 00E – 31 36 00N 034 30 00E then follow the International border to: 29 30 00N 034 55 00E – 29 30 00N 035 00 00E 28 06 00N 034 35 00E to 22 00 00N 038 00 00E ***Southern border** 22 00 00N 038 00 00E – 22 00 00N 025 00 00E ***Western border** 22 00 00N 025 00 00E – 31 40 00N 025 10 00E 34 00 00N 024 10 00E	

SRR	Lateral limits coordinates	Remarks
1	2	3
Damascus		
Emirates		
Jeddah		
Khartoum		
Kuwait		
Muscat		
Sanaa'		
Tehran		
Tripoli		

MID ANP, VOLUME II

PART VI - SEARCH AND RESCUE (SAR)

1. INTRODUCTION

1.1 This part of the MID ANP, Volume II, complements the provisions in ICAO SARPs and PANS related to search and rescue (SAR). It contains dynamic plan elements related to the assignment of responsibilities to States for the provision of SAR facilities and services within a specified area in accordance with Article 28 of the *Convention on International Civil Aviation* (Doc 7300); and mandatory requirements related to the SAR facilities and services to be implemented by States in accordance with regional air navigation agreements. Such agreement indicates a commitment on the part of the State(s) concerned to implement the requirement(s) specified.

2. GENERAL REGIONAL REQUIREMENTS

2.1 The Rescue Coordination Centres (RCCs) and Rescue Sub-Centres (RSCs) for the MID Region are listed in **Table SAR II-1** and depicted in **Chart SAR II-1**.

2.2 In cases where the minimum SAR facilities are temporarily unavailable, alternative suitable means should be made available.

2.3 In cases where a SAR alert is proximate to a Search and Rescue Region (SRR) boundary (e.g. 50 NM or less), or it is unclear if the alert corresponds to a position entirely contained within an SRR, the adjacent RCC or RSC should be notified of the alert immediately.

2.4

3. SPECIFIC REGIONAL REQUIREMENTS

3.1. *The details of the facilities and/or services to be provided to fulfill the basic requirements of the plan could be found in this part. Such agreement indicates a commitment on the part of the State(s) concerned to implement the requirement(s) specified. [if required]*

3.2. The contact details for the SAR Point of Contact (SPOC) – COSPAS-SARSAT in the MID Region is at **Table SAR II-MID-1**

TABLE SAR II-1 - SEARCH AND RESCUE COORDINAION CENTRES AND RESCUE SUB CENTRES IN THE MID REGION

EXPLANATION OF THE TABLE

Column

1 State

2 Name of the Rescue Coordination Centre (RCC) and Rescue Sub-centre (RSC).

3 Minimum requirements for land rescue units (LRU) including mountain rescue units (MRU) and desert rescue units (DRU).

- *Extra Long Range (ELR):* Those aircraft with a radius of action of 2 780 km (1 500 NM) or more, plus 21/2 hours search remaining.
- *Very Long Range (VLR):* Those aircraft with a radius of action of more than 1 850 km (1 000 NM) plus 21/2 hours search remaining.
- *Long Range (LRG):* Those aircraft with a radius of action of 1 390 km (750 NM) plus 21/2 hours search remaining.
- *Medium Range (MRG):* Those aircraft with a radius of action of 740 km (400 NM) plus 21/2 hours search remaining.
- *Short Range (SRG):* Those aircraft with a radius of action of 280 km (150 NM) plus 1/2 hour search remaining.
- *Helicopter (HEL-L):* A helicopter suitable for rescue purposes with, in normal circumstances, a radius of action for rescue purposes of up to 185 km (100 NM) and a capacity for evacuating 1 to 5 persons.
- *Helicopter (HEL-M):* A helicopter suitable for rescue purposes with, in normal circumstances, a radius of action for rescue purposes of 185 to 370 km (100 to 200 NM) and a capacity for evacuating 6 to 15 persons.
- *Helicopter (HEL-H):* A helicopter suitable for search and rescue purposes with, in normal circumstances, a radius of action for rescue purposes of more than 370 km (200 NM) and a capacity for evacuating more than 15 persons.
- *Rescue Boat (RB):* Short-range coastal and river craft with a speed approaching 14 knots or better.
- *Rescue Vessel (RV):* Vessel possessing sea-going qualities, long range and reasonable speed. Patrol, customs, pilotage and other craft fulfil the purpose if assigned a high priority for search and rescue operations.

  Notes:
  1 Coverage by aircraft with shorter range than recommended at LRG range.
  2 The Sri Lanka Government can only provide SAR facilities within a 370 km (200 NM) radius of its principal airports.
  3 Rescue team

4 Remarks. Supplementary information such as the type of RCC (e.g. maritime or aviation or joint).

RCC and Rescue Units		Required rescue facilities		Remarks
1	2	3		4
BAHRAIN				
BAHRAIN RCC				
	Bahrain	HEL-L	RB	
			RV	
	Doha RSC	HEL-M	RB	
			RV	
EGYPT				
CAIRO RCC				
	Cairo	VLR	MRU	
		LRG	DRU	
		MRG	LRU	
		SRG		
		HEL-L	PRU	
		HEL-M		
		HEL-H		
	Alexandria	HEL-M	RB	
			RV	
	Luxor	HEL-M	DRU	
	Hurghada	HEL-M	RB	
			RV	
	M. Matruh	HEL-M	RB	
			RV	
	EL-Minya	DRU		
	El Tor	DRU		
	Habata	DRU		
	New Valley	DRU		
	Ras-Banas	RB	DRU	
			RV	
	Siwa		DRU	
IRAN				
TEHRAN RCC				
	Tehran	LRG	MRU	
		HEL-M	LRU	
	Bandar Abbass	HEL-M	RB	
	Busherhr	HEL-M	RB	
	Esfahan	HEL-M	MRU	
			DRU	
	Kerman	HEL-M	MRU	
			DRU	
	Kermanshah	HEL-M	MRU	
	Mashhad	HEL-M	MRU	
			DRU	
	Tabriz	HEL-M	MRU	
	Zahedan	HEL-M	MRU	

RCC and Rescue Units		Required rescue facilities		Remarks
1	2	3		4
			DRU	
IRAQ				
BAGHDAD RCC				
	Baghdad	MRG		
		HEL-M		
	Kirkuk	HEL-M		
	Shaibah	HEL-M		
	Basrah		RB	
			RV	
JORDAN				
AMMAN RCC				
	Amman	MRG	RB	
		HEL-M		
KUWAIT				
KUWAIT RCC				
	Kuwait	LRG	RB	
		HEL-M	RV	
LEBANON				
BEIRUT RCC				
	Beirut	SRG	RV	
		HEL-M	RB	
	Tripoli		RB	
LIBYA				
TRIPOLI RCC				
	Tripoli	HEL-H	DRU	
		VLR	RV	
	Marsa Brega		RV	
	Sirte		RV	
	Tobruk		RV	
OMAN				
MUSCAT RCC				
	Muscat	MRG, RV	DRU	
		ELR	MRU	
			LRU	
	Salalah	MRG, RB	DRU	
		RV		
SAUDI ARABIA				
JEDDAH RCC				
	Jeddah	LRG	RB	
		HEL-M		
	Dammam	HEL-M	RB	
		HEL-M	LRU	
SUDAN				
KHARTOUM RCC				
	Khartoum	HEL-M	DRU	
		MRG		

RCC and Rescue Units		Required rescue facilities		Remarks
1	2	3		4
	El Obeid	MRG		
	Juba	MRG		
	Port Sudan	MRG		
SYRIA				
DAMASCUS RCC				
	Damascus	MRG	MRU	
		HEL-M		
	Latakia		RB	
UAE				
ABU DHABI RCC				
	Abu Dhabi	SRG	RB	
	Dubai	HEL-H	RB	
	Fujairah		RB	
YEMEN				
SANA'A RCC				
	Sana'a	MRG	DRU	
		HEL-M		
	Aden	MRG	RV	
		HEL-H		
	Hodeidah	MRG	RV	
		HEL-M		
	Riyan	MRG	RV	
		HEL-H		

TABLE SAR II-MID-1 MID REGION SAR POINT OF CONTACT (SPOC) – COSPAS-SARSAT

STATE	SPOC NAME	ADDRESS	EMAIL	TEL	FAX	AFTN	ASS. MCC/ STATE[1]	LAST REVISION	REMARK
Bahrain	RCC ATC Bahrain	Bahrain CAA, Air Navigation Directorate P.O. Box 586 Kingdom of Bahrain	Bahatc@caa.gov.bh	(973) 17321081 17321080	(973) 17321905	OBBISARX	SAMCC Saudi Arabia	16-April-2013	
Egypt	SAR Centre	SAR Centre Almaza Air Base Heliopolis, Cairo, Egypt	jrcc136@afmic.gov.eg mmc@saregypt.net nahedh@tra.gov.eg	(202) 24184537 24184531	(202) 24184537 24184531	HECCYCYX	ALMCC Algeria	22-OCT-2013	TELEX: (91) 21095 RCCC RUN
Iran	RCC Tehran	Civil Aviation Organization SAR Coordination Centre Mehrabad Airport Tehran, Iran	SAR@cao.ir IRAN-SAR@airport.ir rcc.IRAN@airport.ir	(9821) 44544107 44544116 44544060	(9821) 44544117 44544106	OIIIZRZX	TRMCC Turkey	14-Jan-2013	
Iraq	CENTAF-AUAB CAOC JSRC			(974) 4503452 4364193	(974) 4327382		TRMCC Turkey	29-Sep-2009	
Jordan	RCC ATC Amman	RCC Civil Aviation Authority Amman Airport, Jordan		(9626) 4451672	(9626) 4451667	OJACZQZX	SAMCC Saudi Arabia	16-Apr-2013	
Kuwait	RCC ATC Kuwait	RCC DGCA Kuwait International Airport, P.O.Box 17, Kuwait		(965) 24760463 24762994	(965) 24346515 24346221	OKBKZQZX OKBKNSAR	SAMCC Saudi Arabia	16-Apr-2013	
Lebanon	RCC Beirut	RCC, DGCA Lebanon, Hariri Int'l Airport- Beirut, Lebanon		(961) 1628161	(961) 1628186 1629035	OLBIZQZX	SAMCC Saudi Arabia	16-Apr-2013	
Libya	CAA	CAA, Tripoli Int'l Airport, Libya	info@sar.caa.ly	(218.21) 5632332 4446799 3606868	(218.21) 563 0257 360 6868	HLLTYCYX	ALMCC Algeria	16-May-2013	TELEX (218.21) 5632332

[1] Associated COSPAS-SARSAT Mission Control Center / State where it is located

STATE	SPOC NAME	ADDRESS	EMAIL	TEL	FAX	AFTN	ASS. MCC/ STATE[1]	LAST REVISION	REMARK
Oman	RCC Muscat Air Force	RCC, HQ RAFO P.O.Box 730 Central Post Office Muscat Int'l Airport, Oman		(968) 24519209 24519332	(968) 24334776 24338692	OOMSYAYX	SAMCC Saudi Arabia	16-Apr-2013	
Qatar	RCC ATC			(974) 44616332 44651001 44616429	(974) 44622078 44678512	OTBDZTZX	SAMCC Saudi Arabia	16-Apr-2013	
Saudi Arabia	SAMCC	KSA.GACA / Air Navigation services P.O.Box 929 Jeddah 21421 Saudi Arabia	samcc@gaca.gov.sa	(96602) 6150170 6855812 (96650) 4601445	(96602) 6150171 6402855	OEJNJSAR	SAMCC Saudi Arabia	28-Jun-2013	TEL 3 & FAX 2 for Head of SAMCC
Sudan	ACC Khartoum	Khartoum Airport, Sudan		(249.183) 788192 784925	(249.183) 528323	HSSSYCYX	ITMCC Italy	16-Apr-2013	Thuraya +8821655524 296
Syria	RCC ATC	General Civil Aviation Authority		(963.11) 5400540	(963.11) 5400312	OSDIZQZX	SAMCC Saudi Arabia	16-Apr-2013	
UAE	AEMCC	SAR Coordination Center P.O.Box 906 GHQ Armed Forces UAE	aemcc@uae-jrcc.ae	(971.2) 4056144 4496866	(971.2) 4496844	OMADYCYX	AEMCC UAE	23-Sep-2011	
Yemen	RCC Sanaa	RCC Department of Civil Aviation Sanaa, Yemen		(967) 1344673	(967) 1345916	OYSNYCYX	SAMCC Saudi Arabia	16-April-2013	

APPENDIX 8A

Deficiencies in the ATM Field

BAHRAIN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 11 Para 3.3.5.1	-	Not reporting the required data to the MIDRMA in a timely manner.	Dec, 2014	-	H O	Corrective Action Plan has not been provided by the State	Libya	Dec, 2015	A

[1] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

EGYPT

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 11 Para 3.3.5.1	-	~~Reporting Unsatisfactory CFRs and LHDs to MIDRMA~~ Reporting Unsatisfactory LHDs to MIDRMA	Oct, 2013	Egypt to coordinate with MIDRMA.	H	~~Egypt to report satisfactory CFRs and LHDs.~~ Corrective Action Plan has not been provided by the State	Egypt	~~Dec, 2014~~ Dec, 2015	A
2	MID ANP Table ATS 1-ATS routes	-	ATS routes M305/UM305 not implemented	Apr, 2013	Segment BRN-ATMUL not implemented.	S	~~Egypt to continue the coordination with the relevant authorities.~~ Corrective Action Plan has not been provided by the State	Egypt	~~Dec, 2014~~ Dec, 2016	B
3	MID ANP Table ATS 1-ATS routes	-	ATS routes M312/UM312 not implemented	Apr, 2013	Segment DBA-AMIBO not implemented.	S	~~Egypt to continue the coordination with its relevant authorities for the implementation of this route.~~ Corrective Action Plan has not been provided by the State	Egypt	~~Dec, 2014~~ Dec, 2016	B

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

IRAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	~~Annex 11~~ ~~Para. 2.30~~ Annex 11 Para. 2.30 USOAP ANS PQ 7.153	-	~~Development of contingency plans for implementation in the event of disruption of ATS and related supporting services.~~ Development of contingency plan for implementation in the event of disruption or potential disruption of ATS and related supporting services. The Plan should also address natural disasters and public health emergencies. Contingency agreements should be signed with all adjacent ACCs.	Nov, 2006	~~Ongoing, signed with all neighboring States except Syria.~~ Signed with all neighboring States except Kuwait and UAE.	H	~~Iran to sign with Syria and to send all the signed contingency agreements to the ICAO MID Regional Office.~~ Corrective Action Plan has not been provided by the State	Iran	Dec, 2014	A
2	~~MID ANP Table ATS 1 Plan of ATS routes~~ MID ANP Table ATS 1-ATS Route Network	-	~~ATS routes A418/UP574 not implemented KUMUN – PAPAR~~ ATS routes A418/UP574 not implemented	Dec, 2006	KUMUN-PAPAR segment not implemented.	S O	~~States to continue negotiations with one another. Iran has no plan to implement the route segment.~~ Corrective Action Plan has not been provided by the State	Iran- UAE	~~Dec, 2014~~ Dec, 2015	B

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
3	Annex 11 Para 3.3.5.1	-	~~Reporting Unsatisfactory CFRs and LHDs to the MIDRMA~~ Reporting Unsatisfactory LHDs to the MIDRMA	Oct, 2013	Iran to coordinate with the MIDRMA.	H	~~Iran to report satisfactory CFRs and LHDs.~~ Corrective Action Plan has not been provided by the State	Iran	~~Dec, 2014~~ Dec, 2015	A
4	MID ANP Table ATS 1-ATS Route Network	-	ATS Route G202 is restricted to certain defined airspace users	~~Dec, 2014~~ Jun, 2014	Not all Operators are authorized to fly G202	O	Corrective Action Plan has not been provided by the State	Iran	Dec, 2015	B

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

IRAQ

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	~~MID ANP~~ ~~Table ATS 1~~ ~~Plan of ATS~~ ~~Routes~~ MID ANP Table ATS 1- ATS Route Network	-	ATS route G667 not implemented	Sep, 2006	~~Iraq has no objection to implement the Route segment ALSAN-ABD.~~ ~~Kuwait has no objection.~~ Segment ALSAN-ABD not implemented	S	~~Iraq to implement and publish the route segment ABD-ALSAN (G677).~~ Corrective Action Plan has not been provided by the State	Iraq- Iran-Kuwait	~~Jun, 2014~~ Dec, 2015	B

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
2	~~Annex 11~~ ~~Para. 2.30~~ Annex 11 Para. 2.30 USOAP ANS PQ 7.153	-	~~Development of contingency plan~~ Development of contingency plan for implementation in the event of disruption or potential disruption of ATS and related supporting services. The Plan should also address natural disasters and public health emergencies. Contingency agreements should be signed with all adjacent ACCs.	Nov, 2006	~~Contingency Agreement not signed with Syria.~~ Contingency Agreement signed only with Iran	S	~~Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services.~~ ~~Iraq to sign the agreement with Syria and to send the signed agreements with other States to the ICAO MID Regional Office.~~ Corrective Action Plan has not been provided by the State	~~Iraq ICAO~~ Iraq	~~Dec, 2014~~ Dec, 2015	A
3	~~MID ANP Table ATS 1 Plan of ATS routes~~ MID ANP Table ATS 1 ATS Route Network	-	~~ATS route G795 Rafha Basrah segment not implemented~~ ATS route G795 not implemented	May, 2008	~~Coordination between Iraq and Saudi Arabia.~~ RAF-BSR segment not implemented	S	~~States to negotiate coordination issues between the two FIRs, update LoA and coordinate opening of the route.~~ Corrective Action Plan has not been provided by the State	Iraq- Saudi Arabia	~~Dec, 2014~~ Dec, 2015	B
4	~~MID ANP Table ATS 1 Plan of ATS routes~~ MID ANP Table ATS 1-ATS Route Network	-	~~ATS route A424 LOTAN-LOVEK segment (Baghdad FIR) not implemented~~ ATS route A424 not implemented	May, 2008	~~Communication problems between concerned FIRs.~~ LOTAN-LOVEK segment not implemented	O	~~Saudi Arabia has no objection to extend the route into Baghdad FIR.~~ ~~Iraq will implement the route or it may be replaced by the ATS route from RAF to ELODI.~~ Corrective Action Plan has not been provided by the State	Iraq	~~Dec, 2014~~ Dec, 2015	B

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
5	~~MID ANP Table ATS-1 Plan of ATS routes~~ MID ANP Table ATS 1-ATS Route Network	ATS route	~~ATS Route G669 segment Rafha SOLAT not implemented~~ ATS Route G669 not implemented	May, 2008	~~Airspace restrictions.~~ segment RAF - SOLAT not implemented	S	~~Airspace restrictions to be addressed.~~ ~~To check the need for the ATS route segment,taking into consideration the traffic flows and the exiting alternatives.~~ Corrective Action Plan has not been provided by the State	Iraq	~~Dec, 2014~~ Dec, 2015	B
6	MID ANP Table ATS 1-ATS Route Network	-	ATS Route G202 is restricted to certain defined airspace users	Dec, 2014	Not all Operators are authorized to fly G202	O	Corrective Action Plan has not been provided by the State	Iraq	Dec, 2015	B

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

JORDAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	~~Annex 11~~ ~~Para. 2.30~~ Annex 11 Para. 2.30 USOAP ANS PQ 7.153	-	~~Development of contingency plan~~ Development of contingency plan for implementation in the event of disruption or potential disruption of ATS and related supporting services. The Plan should also address natural disasters and public health emergencies. Contingency agreements should be signed with all adjacent ACCs.	Nov, 2006	Contingency agreements not signed with Iraq, Israel and Syria.	H	~~Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services.~~ ~~Jordan to sign Contingency Agreements with Israel, Iraq and Syria.~~ Corrective Action Plan has not been provided by the State	Jordan	~~Dec, 2014~~ Dec, 2015	A

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

KUWAIT

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 11 Para. 2.30	-	Development of contingency plan	Nov, 2006	Contingency Plan was signed with Bahrain and Saudi Arabia. Contingency Plans with Iraq and Iran are still to be signed.	S	Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services. Kuwait to sign the Contingency Agreements with Iran and Iraq.	Kuwait	Dec, 2014	A
2	Annex 11 Para 3.3.5.1	-	Reporting Unsatisfactory CFRs and LHDs to MIDRMA.	Oct, 2013	Kuwait to coordinate with MIDRMA.	H	Kuwait to report satisfactory CFRs and LHDs.	Kuwait	Dec, 2014	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

LEBANON

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	~~Annex 11~~ ~~Para. 2.30~~ Annex 11 Para. 2.30 USOAP ANS PQ 7.153	-	~~Development of contingency plan~~ Development of contingency plan for implementation in the event of disruption or potential disruption of ATS and related supporting services. The Plan should also address natural disasters and public health emergencies. Contingency agreements should be signed with all adjacent ACCs.	Nov, 2006	~~A plan has been developed and will be forwarded to the MID Regional Office.~~ Contingency agreements not signed with Cyprus and Syria	S	~~Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services.~~ Corrective Action Plan has not been provided by the State	~~Lebanon-ICAO~~ Lebanon	~~Dec, 2014~~ Dec, 2015	A
2	Annex 11 Para 3.3.5.1	-	Granting RVSM approvals for aircraft without known hight-keeping monitoring results	Dec, 2012	-	O	~~-~~ Corrective Action Plan has not been provided by the State	Lebanon-DGCA	~~Jun, 2014~~ Dec, 2015	~~U~~ A
3	Annex 11 Para 3.3.5.1	-	~~Reporting Unsatisfactory CFRs and LHDs~~ Reporting Unsatisfactory LHDs to the MIDRMA	Oct, 2013	Lebanon to coordinate with MIDRMA.	H	~~Lebanon to report satisfactory CFRs and LHDs.~~ Corrective Action Plan has not been provided by the State	Lebanon	~~Dec, 2014~~ Dec, 2015	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

Libya

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 11 Para. 2.30 USOAP ANS PQ 7.153	-	Development of contingency plan for implementation in the event of disruption or potential disruption of ATS and related supporting services. The Plan should also address natural disasters and public health emergencies. Contingency agreements should be signed with all adjacent ACCs	Dec, 2014	-	O S	Corrective Action Plan has not been provided by the State	Libya	Dec, 2015	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

OMAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	~~Annex 11~~ ~~Para. 2.30~~ Annex 11 Para. 2.30 USOAP ANS PQ 7.153	-	~~Development of contingency plans~~ Development of contingency plan for implementation in the event of disruption or potential disruption of ATS and related supporting services. The Plan should also address natural disasters and public health emergencies. Contingency agreements should be signed with all adjacent ACCs.	Nov, 2006	~~Contingency Agreements signed with Bahrain,Iran,UAE and Yemen. Agreement to be signed with Pakistan and India.~~ Contingency Agreements to be signed with India and Pakistan .	S	~~Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services.~~ ~~Oman to sign Contingency Agreement with India and Pakistan~~ Corrective Action Plan has not been provided by the State	Oman	~~Dec, 2014~~ Dec, 2015	A
2	Annex 11 Para 3.3.5.1	-	~~Reporting Unsatisfactory CFRs and LHDs~~ Reporting Unsatisfactory LHDs to the MIDRMA	Oct, 2013	Oman to coordinate with MIDRMA.	H	~~Reporting Unsatisfactory CFRs and LHDs.~~ Corrective Action Plan has not been provided by the State	Oman	~~Dec, 2014~~ Dec, 2015	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

QATAR

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	~~Annex 11~~ ~~Para. 2.30~~ Annex 11 Para. 2.30 USOAP ANS PQ 7.153	-	~~Development of contingency plan for implementation in the event of disruption of ATS and related supporting services.~~ Development of contingency plan for implementation in the event of disruption or potential disruption of ATS and related supporting services. The Plan should also address natural disasters and public health emergencies. Contingency agreements should be signed with all adjacent ACCs.	Nov, 2006	~~Agreement signed with Bahrain; agreements not signed with Saudi Arabia and UAE.~~ Contingency agreements not signed with Saudi Arabia and UAE.	S	~~Qatar to sign the contingency agreements with Saudi Arabia and UAE and send them to the ICO MID Regional Office.~~ Corrective Action Plan has not been provided by the State	~~Qatar- Bahrain- ICAO~~ Qatar- Bahrain	~~Dec, 2014~~ Dec, 2015	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

SAUDI ARABIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	~~Annex 11~~ ~~Para. 2.30~~ Annex 11 Para. 2.30 USOAP ANS PQ 7.153	-	~~Development of contingency plan~~ Development of contingency plan for implementation in the event of disruption or potential disruption of ATS and related supporting services. The Plan should also address natural disasters and public health emergencies. Contingency agreements should be signed with all adjacent ACCs.	Nov, 2006	~~A draft contingency plan not fully compliant with the agreed template has been developed. Further work being done in coordination with adjacent States. Signed with Bahrain, Jordan, Kuwait and Egypt.~~ Contingency Agreements not signed with Eritrea, Iraq, Sudan and Yemen.	S	~~Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services.~~ ~~Saudi Arabia to sign Contingency Agreements with Eritrea, Iraq, Sudan and Yemen.~~ Corrective Action Plan has not been provided by the State	Saudi Arabia	~~Dec, 2014~~ Dec, 2015	A
2	Annex 11 Para 3.3.5.1	-	~~Reporting Unsatisfactory CFRs and LHDs~~ Reporting Unsatisfactory LHDs to the MIDRMA	Oct, 2013	Saudi Arabia to coordinate with MIDRMA.	H	~~Reporting Unsatisfactory CFRs and LHDs.~~ Corrective Action Plan has not been provided by the State	Saudi Arabia	~~Dec, 2014~~ Dec, 2015	A

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

Sudan

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 11 Para. 2.30 USOAP ANS PQ 7.153	-	Development of contingency plan for implementation in the event of disruption or potential disruption of ATS and related supporting services. The Plan should also address natural disasters and public health emergencies. Contingency agreements should be signed with all adjacent ACCs.	Dec, 2014	Contingency Agreement signed only with Egypt	H O S	Corrective Action Plan has not been provided by the State	Sudan	Dec, 2015	A

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

SYRIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	~~MID ANP Table ATS 1Plan of ATS routes~~ ID ANP Table ATS 1-ATS Route Network	-	ATS route G202 not implemented	Dec, 1997	~~Not implemented DAKWE - Damascus. Economic impact- alternative routes available but longer- not affecting safety.~~ Segment DAKWE - Damascus not implemented	S	~~Syria has no plan to implement the route.~~ Corrective Action Plan has not been provided by the State	Syria	~~Dec, 2014~~ Dec, 2015	B
2	~~MID ANP Table ATS-1 Plan of ATS routes~~ MID ANP Table ATS 1-ATS Route Network	-	~~ATS route UL602 not implemented in Damascus FIR~~ ATS route UL602 not implemented	Dec, 2003	Segments ELEXI-DRZ-GAZ not implemented.	S	~~Syria to implement ELEXI-DRZ and to coordinate with Turkey for the implementation of DRZ-GAZ.~~ Corrective Action Plan has not been provided by the State	Syria	~~Dec, 2014~~ Dec, 2015	B

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
3	~~Annex 11~~ ~~Para. 2.30~~ Annex 11 Para. 2.30 USOAP ANS PQ 7.153	-	~~Development of contingency plans~~ Development of contingency plan for implementation in the event of disruption or potential disruption of ATS and related supporting services. The Plan should also address natural disasters and public health emergencies. Contingency agreements should be signed with all adjacent ACCs.	Nov, 2006	~~Draft available.~~ -	H O	~~Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services.~~ Corrective Action Plan has not been provided by the State	Syria	~~Dec, 2014~~ Dec, 2015	A
4	Annex 11 Para 3.3.5.1	-	~~Reporting unsatisfactory CFRs and LHDs to MIDRMA~~ Reporting unsatisfactory LHDs to MIDRMA	Oct, 2013	Syria to coordinate with MIDRMA.	H	~~Reporting unsatisfactory CFRs and LHDs to MIDRMA.~~ Corrective Action Plan has not been provided by the State	Syria	~~Dec, 2014~~ Dec, 2015	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

UAE

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	~~Annex 11~~ ~~Para. 2.30~~ Annex 11 Para. 2.30 USOAP ANS PQ 7.153	-	~~Development of contingency plan~~ Development of contingency plan for implementation in the event of disruption or potential disruption of ATS and related supporting services. The Plan should also address natural disasters and public health emergencies. Contingency agreements should be signed with all adjacent ACCs.	Nov, 2006	~~Plan completed and Agreements signed with Bahrain and Oman. Others pending.~~ Plan completed and Agreements signed with Bahrain and Oman. The plan next is to sign with Saudi Arabia and Qatar after the finalisation of the LoA. Communications are in place for the same to sign with Iran.	O	~~Need to develop and promulgate contingency plans for implementation in the event of disruption of ATS and related supporting services signed with Oman, pending signature with Bahrain, Iran and Qatar.~~ Corrective Action Plan has not been provided by the State	UAE	~~Dec, 2014~~ Jun, 2015	A
2	~~MID ANP Table ATS-1 Plan of ATS routes~~ MID ANP Table ATS 1-ATS Route Network	-	~~ATS routes A418/UP574 not implemented KUMUN – PAPAR~~ ATS routes A418/UP574 not implemented	Dec, 2006	KUMUN-PAPAR segment not implemented.	S	~~States to continue negotiations with one another.~~ ~~The UAE considers options for a resolution to be exhausted~~ Corrective Action Plan has not been provided by the State	Iran- UAE	~~Dec, 2014~~ Jun, 2015	B

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the ATM Field

YEMEN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	~~Annex 11~~ ~~Para. 2.30~~ Annex 11 Para. 2.30 USOAP ANS PQ 7.153	-	~~Development of contingency plan~~ Development of contingency plan for implementation in the event of disruption or potential disruption of ATS and related supporting services. The Plan should also address natural disasters and public health emergencies. Contingency agreements should be signed with all adjacent ACCs	Nov, 2006	~~Ongoing - signed with Oman.~~ Contingency Agreement signed only with Oman.	H O	~~Need to develop and promulgate contingency plan for implementation in the event of disruption of ATS and related supporting services with all neighboring States.~~ Corrective Action Plan has not been provided by the State	Yemen	~~Dec, 2014~~ Dec, 2015	A
2	Annex 11 Para 3.3.5.1	-	Granting RVSM approvals for aircraft without known hight-keeping monitoring results	Dec, 2012	-	~~O~~ H O	~~-~~ Corrective Action Plan has not been provided by the State	Yemen	~~Jun, 2014~~ Dec, 2015	~~U~~ A
3	Annex 11 Para 3.3.5.1	-	~~Reporting Unsatisfactory CFRs and LHDs to MIDRMA~~ Reporting Unsatisfactory LHDs to MIDRMA	Oct, 2013	Yemen to coordinate with MIDRMA.	H	~~Reporting Unsatisfactory CFRs and LHDs.~~ Corrective Action Plan has not been provided by the State	Yemen	~~Dec, 2014~~ Dec, 2015	A

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(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

APPENDIX 8B

Deficiencies in the SAR Field

BAHRAIN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 12~~ ~~Para.. 3.1.1 & 3.1.5~~	~~-~~	~~Lack of Search and Rescue Agreements with neighbouring States~~	~~Nov, 1994~~	~~-~~	~~S~~	~~Bahrain is ready and willing to sign the SAR agreements with all its neighboring States, a draft copy already sent to the concerned States.~~	~~Bahrain~~	~~Jun, 2014~~	~~A~~
~~2~~	~~Annex 12~~ ~~Para. 4.2.1 & 4.4~~	~~-~~	~~Lack of Plans of operations for the conduct of SAR operations and SAR exercises~~	~~Apr, 2012~~	~~-~~	~~O~~	~~Communication exercise done on January 2013.~~ ~~Full scale exercise done in 2012 and reschedule for 2014.~~ ~~Coordination exercise planned for 2014.~~	~~Bahrain~~	~~Dec, 2014~~	~~A~~

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the SAR Field

EGYPT

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 12 Para., 3.1.1 & 3.1.5~~	~~-~~	~~Lack of Search and Rescue Agreements with neighboring States~~	~~Nov, 1994~~	~~-~~	~~S~~	~~Egypt has promulgated regulations and started development of SAR agreement with Cyprus and other States~~	~~Egypt with neighboring States~~	~~Dec, 2014~~	~~A~~
~~2~~	~~Annex 12 Para. 4.2.1 & 4.4~~	~~-~~	~~Lack of Plans of operations for the conduct of SAR operations and SAR exercises~~	~~Apr, 2012~~	~~-~~	~~O~~	~~-~~	~~Egypt~~	~~Dec, 2014~~	~~A~~

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the SAR Field

IRAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 12~~ ~~Para., 3.1.1 & 3.1.5~~	~~-~~	~~Lack of Search and Rescue Agreements with neighboring States~~	~~Nov, 1994~~	~~-~~	~~S~~	~~Work ongoing to sign agreements~~	~~Iran with neighboring States~~	~~Dec, 2014~~	~~A~~
2	Annex 12 Para. 2.1	-	Lack of provision of required SAR services	Apr, 2012	-	O	~~-~~ Corrective Action Plan has not been provided by the State	Iran	~~Dec, 2014~~ Dec, 2015	A
~~3~~	~~Annex 12~~ ~~Para. 4.2.1 & 4.4~~	~~-~~	~~Lack of Plans of operations for the conduct of SAR operations and SAR exercises~~	~~Apr, 2012~~	~~-~~	~~O~~	~~-~~	~~Iran~~	~~Dec, 2014~~	~~A~~

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the SAR Field

IRAQ

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 12~~ ~~Para., 3.1.1 & 3.1.5~~	~~-~~	~~Lack of Search and Rescue Agreements with neighboring States~~	~~Nov, 1994~~	~~-~~	~~S~~	~~Work ongoing to sign agreements.~~ ~~Signed with Jordan~~	~~Iraq with neighboring States~~	~~Dec, 2014~~	~~A~~
2	Annex 12 Para. 2.1	-	Lack of provision of required SAR services	Apr, 2012	-	O	~~-~~ Corrective Action Plan has not been provided by the State	Iraq	~~Dec, 2014~~ Dec, 2015	A

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
3	~~Annex 6 Vol I, para. 6.17~~ ~~Annex 10, Vol III, para. 5.1~~ ~~Annex 12~~ ~~para. 2.6.4~~ Annex 6 Part I, Chap.6 and Part II Chap. 2 Annex 10, Vol III, Chap. 5 Annex 12 para. 2.6.4	ELT	Non-compliance with carriage of Emergency Locator Transmitter (ELT) requirements	Apr, 2012	-	O	~~-~~ Corrective Action Plan has not been provided by the State	Iraq	~~Dec, 2014~~ Dec, 2015	A
~~4~~	~~Annex 12~~ ~~Para. 4.2.1 & 4.4~~	~~-~~	~~Lack of Plans of operations for the conduct of SAR operations and SAR exercises~~	~~Apr, 2012~~	~~-~~	~~O~~	~~-~~	~~Iraq~~	~~Dec, 2014~~	~~A~~

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the SAR Field

JORDAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 12~~ ~~Para., 3.1.1 & 3.1.5~~	~~-~~	~~Lack of Search and Rescue Agreements with neighboring States~~	~~Nov, 1994~~	~~-~~	~~S~~	~~Work ongoing to sign agreements.~~ ~~Signed with Iraq~~	~~Jordan~~	~~Dec, 2014~~	~~A~~

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the SAR Field

KUWAIT

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 12~~ ~~Para.. 3.1.1 & 3.1.5~~	~~-~~	~~Lack of Search and Rescue Agreements with neighboring States~~	~~Nov, 1994~~	~~-~~	~~S~~	~~Work ongoing to sign agreements~~	~~Kuwait with neighboring States~~	~~Dec, 2014~~	~~A~~
2	~~Annex 6 Vol I, para. 6.17~~ ~~Annex 10, Vol III, para. 5.1~~ ~~Annex 12~~ ~~para. 2.6.4~~ Annex 6 Part I chap. 6 and Part II chap. 2 Annex 10, Vol III, Chap. 5 Annex 12 para. 2.6.4	ELT	Non-compliance with carriage of Emergency Locator Transmitter (ELT) requirements	Apr, 2012	-	O	~~-~~ Corrective Action Plan has not been provided by the State	Kuwait	~~Dec, 2014~~ Dec, 2015	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~3~~	~~Annex 12 Para. 4.2.1 & 4.4~~	~~-~~	~~Lack of Plans of operations for the conduct of SAR operations and SAR exercises~~	~~Apr, 2012~~	~~-~~	~~O~~	~~-~~	~~Kuwait~~	~~Dec, 2014~~	~~A~~

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the SAR Field

LEBANON

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 12~~ ~~Para., 3.1.1 & 3.1.5~~	~~-~~	~~Lack of Search and Rescue Agreements with neighboring States~~	~~Nov, 1994~~	~~-~~	~~S~~	~~Work ongoing to sign agreements. Agreement signed with Cyprus.~~	~~Lebanon with neighboring States~~	~~Dec, 2014~~	~~A~~
2	Annex 12 Para. 2.1	-	Lack of provision of required SAR services	Apr, 2012	-	O	~~-~~ Corrective Action Plan has not been provided by the State	Lebanon	~~Dec, 2014~~ Dec, 2015	A
~~3~~	~~Annex 12~~ ~~Para. 4.2.1 & 4.4~~	~~-~~	~~Lack of Plans of operations for the conduct of SAR operations and SAR exercises~~	~~Apr, 2012~~	~~-~~	~~O~~	~~-~~	~~Lebanon~~	~~Dec, 2014~~	~~A~~

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the SAR Field

Libya

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
1	Annex 6 Part I chap. 6 and Part II chap. 2 Annex 10, Vol III, Chap. 5 Annex 12 para. 2.6.4	-	Non-compliance with carriage of Emergency Locator Transmitter (ELT) requirements	Dec, 2014	-	H O S	Corrective Action Plan has not been provided by the State	Libya	Dec, 2015	A
2	Annex 12 Para. 2.1	-	Lack of provision of required SAR services	Dec, 2014	-	H O S	Corrective Action Plan has not been provided by the State	Libya	Dec, 2015	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the SAR Field

OMAN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 12~~ ~~Para., 3.1.1 & 3.1.5~~	~~-~~	~~Lack of Search and Rescue Agreements with neighboring States~~	~~Nov, 1994~~	~~-~~	~~S~~	~~Agreemnt signed with Saudi Arabia.~~ ~~Work ongoing to sign the remaining agreements~~	~~Oman with neighboring States~~	~~Dec, 2014~~	~~A~~

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the SAR Field

QATAR

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 12~~ ~~Para., 3.1.1 & 3.1.5~~	~~-~~	~~Lack of Search and Rescue Agreements with neighboring States~~	~~Nov, 1994~~	~~-~~	~~S~~	~~-~~	~~Qatar and Bahrain~~	~~Dec, 2014~~	~~A~~
2	Annex 12 Para. 2.1	-	Lack of provision of required SAR services	Apr, 2012	-	O	~~-~~ Corrective Action Plan has not been provided by the State	Qatar	~~Dec, 2014~~ Dec, 2015	A

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
3	~~Annex 6 Vol I, para. 6.17~~ ~~Annex 10, Vol III, para. 5.1~~ ~~Annex 12~~ ~~para. 2.6.4~~ Annex 6 Part I chap. 6 and Part II chap. 2 Annex 10, Vol III, Chap. 5 Annex 12 para. 2.6.4	ELT	Non-compliance with carriage of Emergency Locator Transmitter (ELT) requirements	Apr, 2012	-	O	~~-~~ Corrective Action Plan has not been provided by the State	Qatar	~~Dec, 2014~~ Dec, 2015	A
~~4~~	~~Annex 12~~ ~~Para. 4.2.1 & 4.4~~	~~-~~	~~Lack of Plans of operations for the conduct of SAR operations and SAR exercises~~	~~Apr, 2012~~	~~-~~	~~O~~	~~-~~	~~Qatar~~	~~Dec, 2014~~	~~A~~

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the SAR Field

SAUDI ARABIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 12~~ ~~Para., 3.1.1 & 3.1.5~~	~~-~~	~~Lack of Search and Rescue Agreements with neighboring States~~	~~Nov, 1994~~	~~-~~	~~S~~	~~SAR National Board established.~~ ~~Agreement signed with Oman. Work ongoing to sign the remaining agreements.~~	~~Saudi Arabia with neighboring States~~	~~Dec, 2014~~	~~A~~
~~2~~	~~Annex 12~~ ~~Para. 4.2.1 & 4.4~~	-	~~Lack of Plans of operations for the conduct of SAR operations and SAR exercises~~	~~Apr, 2012~~	-	~~O~~	-	~~Saudi Arabia~~	~~Dec, 2014~~	~~A~~

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the SAR Field

SYRIA

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 12~~ ~~Para., 3.1.1 & 3.1.5~~	~~-~~	~~Lack of Search and Rescue Agreements with neighboring States~~	~~Nov, 1994~~	~~-~~	~~S~~	~~Work ongoing to sign agreements.~~ ~~Agreement with Turkey and Cyprus completed. Agreement with Iraq, Jordan and Lebanon pending~~	~~Syria with neighboring States~~	~~Dec, 2014~~	~~A~~
2	Annex 12 Para. 2.1	-	Lack of provision of required SAR services	Apr, 2012	-	O	- Corrective Action Plan has not been provided by the State	Syria	~~Jan, 2015~~ Dec, 2015	A

[(1)] Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
3	~~Annex 6 Vol I, para. 6.17~~ ~~Annex 10, Vol III, para. 5.1~~ ~~Annex 12~~ ~~para. 2.6.4~~ Annex 6 Part I chap. 6 and Part II chap. 2 Annex 10, Vol III, Chap. 5 Annex 12 para. 2.6.4	~~ELT~~ -	Non-compliance with carriage of Emergency Locator Transmitter (ELT) requirements	Apr, 2012	-	O	~~-~~ Corrective Action Plan has not been provided by the State	Syria	~~Jan, 2015~~ Dec, 2015	A
~~4~~	~~Annex 12~~ ~~Para. 4.2.1 & 4.4~~	~~-~~	~~Lack of Plans of operations for the conduct of SAR operations and SAR exercises~~	~~Apr, 2012~~	~~-~~	~~O~~	~~-~~	~~Syria~~	~~Jan, 2015~~	~~A~~

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the SAR Field

UAE

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 12~~ ~~Para., 3.1.1 & 3.1.5~~	~~-~~	~~Lack of Search and Rescue Agreements with neighboring States~~	~~Nov, 1994~~	~~-~~	~~S~~	~~Work ongoing. The agreement with Bahrain and Oman to be updated and the one with Iran is being coordinated.~~ ~~UAE developed a draft agreement and efforts are in place to sign with Bahrain and Oman in the near future. negotiations will take place with Saudi Arabia and Qatar through the next GCC meeting for the same.~~	~~UAE with neighboring States~~	~~Dec, 2014~~ ~~Jun, 2015~~	~~A~~

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Deficiencies in the SAR Field

YEMEN

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
~~1~~	~~Annex 12 Para., 3.1.1 & 3.1.5~~	~~-~~	~~Lack of Search and Rescue Agreements with neighboring States~~	~~Nov, 1994~~	~~-~~	~~S~~	~~-~~	~~Yemen with neighboring States~~	~~Dec, 2014~~	~~A~~
2	Annex 12 Para. 2.1	-	Lack of provision of required SAR services	Apr, 2012	-	O	~~-~~ Corrective Action Plan has not been provided by the State	Yemen	~~Dec, 2014~~ Dec, 2015	A

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Item No	Identification		Deficiencies				Corrective Action			
	Requirement	Facilities/ Services	Description	Date First Reported	Remarks/ Rationale for Non-elimination		Description	Executing Body	Date of Completion	Priority for Action
3	~~Annex 6 Vol I, para. 6.17~~ ~~Annex 10, Vol III, para. 5.1~~ ~~Annex 12~~ ~~para. 2.6.4~~ Annex 6 Part I chap. 6 and Part II chap. 2 Annex 10, Vol III, Chap. 5 Annex 12 para. 2.6.4	~~ELT~~ -	Non-compliance with carriage of Emergency Locator Transmitter (ELT) requirements	Apr, 2012	-	O	~~-~~ Corrective Action Plan has not been provided by the State	Yemen	~~Dec, 2014~~ Dec, 2015	A
~~4~~	~~Annex 12~~ ~~Para. 4.2.1 & 4.4~~	~~-~~	~~Lack of Plans of operations for the conduct of SAR operations and SAR exercises~~	~~Apr, 2012~~	~~-~~	~~O~~	~~-~~	~~Yemen~~	~~Dec, 2014~~	~~A~~

(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

Note:* Priority for action to remedy a deficiency is based on the following safety assessments:

'U' priority = Urgent requirements having a direct impact on safety and requiring immediate corrective actions.

Urgent requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is urgently required for air navigation safety.

'A' priority = Top priority requirements necessary for air navigation safety.

Top priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation safety.

'B' priority = Intermediate requirements necessary for air navigation regularity and efficiency.

Intermediate priority requirement consisting of any physical, configuration, material, performance, personnel or procedures specification, the application of which is considered necessary for air navigation regularity and efficiency.

Definition:

A deficiency is a situation where a facility, service or procedure does not comply with a regional air navigation plan approved by the Council, or with related ICAO Standards and Recommended Practices, and which situation has a negative impact on the safety, regularity and/or efficiency of international civil aviation.

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(1) Rationale for non-elimination: "F"= Financial "H"= Human Resources "S"= State (Military/political) "O"= Other unknown causes

APPENDIX 9A

**TERMS OF REFERENCE (TOR) OF
AIR TRAFFIC MANAGEMENT SUB-GROUP
(ATM SG)**

1. TERMS OF REFERENCE

1.1 The terms of reference of the ATM Sub-Group are:

a) ensure that the planning and implementation of ATM in the MID Region is coherent and compatible with developments in adjacent regions, and is in line with the Global Air Navigation Plan (GANP), the Aviation System Block Upgrades (ASBU) methodology and the MID Region Air Navigation Strategy;

b) monitor the status of implementation of the MID Region ATM-related ASBU Modules included in the MID Region Air Navigation Strategy as well as other required ATM facilities and services, identify the associated difficulties and deficiencies and provide progress reports, as required;

c) keep under review the MID Region ATM performance objectives/priorities, develop action plans to achieve the agreed performance targets and propose changes to the MID Region ATM plans/priorities, through the ANSIG;

d) seek to achieve common understanding and support from all stakeholders involved in or affected by the ATM developments/activities in the MID Region;

e) provide a platform for harmonization of developments and deployments in the ATM domain;

f) based on the airspace user needs and in coordination with stakeholders (States, International Organizations, user representative organizations and other ICAO Regions), identify requirements and improvements for achieving and maintaining an efficient route network in the MID Region;

g) foster and initiate actions aimed at improving civil/military cooperation and Flexible Use of Airspace (FUA) implementation;

h) keep under review the adequacy of requirements in Search and Rescue field, taking into account, *inter alia*, changes to aircraft operations and new operational requirements or technological developments;

i) ensure the effectiveness of the SSR code allocation system in the MID Region;

j) identify, State by State, those specific deficiencies that constitute major obstacles to the provision of efficient air traffic management and recommend specific measures to eliminate them;

k) develop the MID Region ATM Contingency Plan and ensure that its maintained up to date;

l) monitor the implementation of the MID Region ASBU Modules included in the MID Region Air Navigation Strategy related to the ATM, provide expert inputs for ATM related issues; and propose solutions for meeting ATM operational requirements;

m) monitor and review the latest developments in the area of ATM;

n) provide regular progress reports to the ANSIG Group and MIDANPIRG concerning its work programme; and

o) review periodically its Terms of Reference and propose amendments as necessary.

1.2 **In order to meet the Terms of Reference, the ATM Sub-Group shall**:

a) provide necessary assistance and guidance to States to ensure harmonization and interoperability in line with the GANP, the MID ANP and ASBU methodology;

b) provide necessary inputs to the MID Air Navigation Strategy through the monitoring of the agreed Key Performance Indicators related to ATM;

c) review the MID ATS Routes Network in order to assess its capacity and constraints;

d) identify requirements and improvements for achieving and maintaining an efficient ATS route network in the MID Region;

e) propose a strategy and prioritized plan for development of improvements to the route network, highlighting:

- areas that require immediate attention
- interface issues with adjacent ICAO Regions

f) develop a working depository for route proposals that will be used as a dynamic reference document for ongoing discussions on routes under development/ modification. In this respect, the Task Force should explore the utility that can be realized from the route catalogue concept/ATS routes database;

g) engage the necessary parties regarding routes under consideration, especially the Military Authorities;

h) promote civil/military cooperation and the implementation of the concepts of Flexible Use of Airspace (FUA), free flight, flexible tracks;

i) facilitate effective civil/military cooperation and joint use of airspace in the MID Region;

j) in coordination with the MIDRMA, carry out safety assessment of the proposed changes to the ATS Routes Network;

k) submit completed route proposals for amendment of the Basic ANP Table ATS-1, to the ICAO MID Regional Office for processing;

l) monitor the RVSM operations and support the continued safe use of RVSM in the MID Region;

m) review and maintain the MID Region SSR Code Allocation Plan and monitor the implementation of the SSR codes allocation procedures in the Region;

n) assist States in the development and co-ordination of contingency plans and ensure that the Regional contingency plan is maintained up-to-date;

o) assess the effectiveness of the agreed Contingency measures/procedures and propose mitigation measures, as appropriate;

p) address ATM and SAR interface issues with other regions and make specific recommendations to achieve seamlessness and harmonization;

q) review the requirements and monitor the status of implementation of ATM and SAR services;

r) analyse, review and monitor deficiencies in the ATM and SAR fields;

s) develop proposals for the updating of relevant ICAO documentation, including the amendment of relevant parts of the MID ANP, as deemed necessary;

t) establish and monitor ATM performance objectives for the MID Region; and

u) taking into account human factors studies and available guidance material, make operational recommendations related to ATM personnel in the changing technological environment.

2. COMPOSITION

2.1 The Sub-Group is composed of:

a) MIDANPIRG Member States;

b) experts nominated by Middle East Provider States from both Civil Aviation Authority and Military Authority;

c) concerned International and Regional Organizations as observers; and

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

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