ICAO MID

Eighteenth Meeting of the Middle East Air Navigation Planning and Implementation Regional Group

MIDANPIRG/18

&

Eighth Meeting of the Regional Aviation Safety Group - Middle East

RASG-MID/8

Virtual Meetings, 15-22 February 2021

INTERNATIONAL CIVIL AVIATION ORGANIZATION

Report of the Eighteenth Meeting of the Middle East Air Navigation Planning and Implementation Regional Group and Eighth Meeting of the Regional Aviation Safety Group-Middle East

MIDANPIRG/18 & RASG-MID/8

(Virtual Meetings, 15 – 22 February 2021)

The views expressed in this Report should be taken as those of the Regional Planning and Implementation Group and not of the Organization. This Report will, however, be submitted to the ICAO Council 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 Eighteenth Meeting of the Middle East Air Navigation Planning and Implementation Regional Group and the Eighth Meeting of the Regional Aviation Safety Group-Middle East (MIDANPIRG/18 & RASG-MID/8) was held virtually from 15 to 22 February 2021.

2. OPENING

2.1 Mr. Mohamed Smaoui, Acting Regional Director, ICAO Middle East (MID) Regional Office opened the meeting. He welcomed all the participants to the Eighteenth Meeting of the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG/18) and the Eighth Meeting of the Regional Aviation Safety Group-Middle East (RASG-MID/8), organized concurrently in a virtual setting for the first time. Mr. Smaoui highlighted that this is in line with the directives from the ICAO Council regarding PIRGs and RASGs arrangements.

2.2 Mr. Smaoui highlighted the impact of COVID-19 on the aviation industry; in particular in the Middle East Region, where international connectivity has been reduced by 116 million passengers, which translates into 21 billion in lost operator revenues during 2020.

2.3 Mr. Smaoui recalled that, in accordance with their Terms of Reference, the PIRGs and RASGs are expected to identify regional priorities, implementation targets and indicators related to air navigation and aviation safety for the regional implementation of the Global Air Navigation Plan (GANP) and the Global Aviation Safety Plan (GASP), and provide actionable recommendations to the Council. He underlined the crucial role of States in the PIRGs and RASGs activities, as well as the collaborative and proactive role by airspace users, international and regional organizations, and industry. He provided an overview of the main items included in the Provisional Agenda (plenary sessions, RASG-MID specific sessions and MIDANPIRG specific sessions). Finally, Mr. Smaoui thanked all participants for their presence wishing them successful and productive meeting.

2.4 Mr. Ismaeil Mohammed Al Blooshi, Chairman of RASG-MID and Mr. Adel Boresli, Chairman of MIDANPIRG, thanked all delegates for their attendance. They highlighted the need for effective participation of States and all stakeholders; yet, considering that the MIDANPIRG and RASG-MID meetings are being conducted for the first time in a virtual setting, there is a need for an improved efficiency and time management for the conduct of the meetings, in order to be able to address all the subjects included in the Agenda.

3. ATTENDANCE

3.1 The meeting was attended by a total of Two Hundred and Nineteen (219) participants, which included experts from sixteen (16) States (Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Sudan, Syria, UAE, USA and Yemen) and eleven (11) International Organizations/Industries (AACO, ACAO, ACI, BOEING, CANSO, EUROCONTROL, IATA, IFALPA, IFATCA, JEPPESEN and MIDRMA). The list of participants is at **Attachment A**.

OFFICERS AND SECRETARIAT

3.2 Mr. Ismaeil Mohammed Al Blooshi, Chairman of the RASG-MID and Mr. Adel Boresli, Chairman of MIDANPIRG, chaired the meetings. During the sessions, where Mr. Al Blooshi or Mr. Boresli could not be available, the sessions were chaired by their Vice-Chairpersons (Mr. Jehad Faqir, for the RASG-MID/8 meeting and Mr. Ahmed Al Jallaf for the MIDANPIRG/18 meeting).

3.3 Mr. Mohamed Smaoui, Acting Regional Director, ICAO Middle East Office, acted as the Secretary of the meetings, supported by the following Officers:

From the ICAO MID Office, Cairo:

Mr. Mashhor Alblowi	Regional Officer, Flight Safety
Ms. Muna Alnadaf	Regional Officer, Communication, Navigation and Surveillance
Mr. Mohamed Iheb Hamdi	Regional Officer, Aerodromes and Ground Aids
Mr. Radhouan Aissaoui	Regional Officer, Information Management
Mr. Ahmad Amireh	Regional Officer, Air Traffic Management and Search and Rescue
Mr. Ahmad Kaveh	Regional Officer, Air Traffic Management

From the ICAO EUR/NAT Office, Paris:

Mr. Christopher Keohan -	Regional Officer Meteorology

The meeting was also supported by the following team from ICAO Headquarters:

Mr. Stephen Creamer	Director, Air Navigation Bureau
Mr. Chris Dalton	Chief, Airspace Management and Optimization
Mr. Marco Merens	Chief Integrated Aviation Analysis
Mr. Herman Pretorius	Technical Officer, Safety
Mr. Martin Maurino	Technical Officer, Global Aviation Safety
Mr. Hervé Forestier	Technical Officer, Implementation
Mr. Elie Elkhoury	Technical Officer, Airspace Management and Optimization
Ms. Crystal Kim	Technical Officer, Airspace Management and Optimization
Ms. Cherifa Ouertania	Consultant, ANB/IAA

4. LANGUAGE

4.1 The discussions were conducted in English. Documentation was issued in English.

5. AGENDA

5.1 The following Agenda was adopted:

Agenda Item 1: Adoption of the Provisional Agenda *(Plenary)*

Agenda Item 2: Global and Regional Developments *(Plenary)*

2.1 Review of action taken by the ANC on MIDANPIRG/17 and RASG-MID/7 Reports
2.2 New Terms of Reference of PIRGs and RASGs
2.3 COVID-19 Impact on aviation

Agenda Item 3: Coordination between MIDANPIRG and RASG-MID *(Plenary)*

3.1 Follow-up on the joint Conclusions of MIDANPIRG/17 and RASG-MID/7
3.2 Subjects of interests between MIDANPIRG and RASG-MID (NMAC, RPAS, GRF, etc)
3.3 RVSM operations and Monitoring in the MID Region
3.4 MIDANPIRG and RASG-MID Working Arrangements (face-to-face and virtual meetings; frequency of meetings, etc).

Agenda Item 4: RASG-MID Work Programme *(RASG-MID/8)*

4.1 Global and Regional Aviation Safety Developments
4.2 Regional Performance Framework for Safety
- 4.2.1 Follow-up on the RASG-MID/7 and RSC/7 Conclusions and Decisions
- 4.2.2 Outcomes of the ASRG/2 meeting
- 4.2.3 Outcomes of the SEIG/1 meeting
- 4.2.4 Outcomes of the ASPIG/2 meeting
- 4.2.5 Strategy for the Enhancement of Cooperation in the Provision of AIG Services in the MENA Region
- 4.2.6 Other regional aviation safety projects, initiatives and activities

4.3 RASG-MID Working Arrangements and Future Work Programme
- 4.3.1 RASG-MID ORG Structure, Working Arrangements and chairmanship
- 4.3.2 RASG-MID Terms of Reference and Procedural Handbook
- 4.3.3 5th MID Region Safety Summit

Agenda Item 5: MIDANPIRG Work Programme *(MIDANPIRG/18)*

5.1 Global and Regional Air Navigation Developments

5.2 Air Navigation Planning and Implementation
- 5.2.1 Follow-up on MIDANPIRG/17 and MSG/7 Conclusions and Decisions
- 5.2.2 MID Region Air Navigation priorities and targets (MID AN Reports)
- 5.2.3 Revised MID Air Navigation Strategy
- 5.2.4 Revised MID ANP (Vol II and Vol III)
- 5.2.5 Proposal for Amendment (PfA) of the ICAO MID ANP - Volume I (Serial No.: MID ANP-I 20/01 – ATM/SAR), originated by Qatar
- 5.2.6 Specific Air Navigation issues:
  - AIM
  - PBN Implementation
  - AGA/AOP
  - ATM
  - SAR
  - CNS
  - MET

5.3 Air Navigation Deficiencies

5.4 MIDANPIRG Working Arrangements and Future Work Programme
5.4.1 MIDANPIRG ORG Structure, Working Arrangements and Chairmanship
5.4.2 MIDANPIRG Terms of Reference and Procedural Handbook

Agenda Item 6: Dates and Venue of MIDANPIRG/19 & RASG-MID/9 *(Plenary)*

Agenda Item 7: Any other business *(Plenary)*

6. CONCLUSIONS AND DECISIONS – DEFINITION

6.1 The MIDANPIRG and RASG-MID record their 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.

7. LIST OF CONCLUSIONS AND DECISIONS

PIRG/RASG MID DECISION 1:	*RPAS/UTM ACTION GROUP*
PIRG/RASG MID CONCLUSION 2:	*MID REGION GRF IMPLEMENTATION ACTION PLAN*
RASG-MID CONCLUSION 8/1:	*9TH ASR*
RASG-MID CONCLUSION 8/2:	*SHARING OF SAFETY DATA ANALYSIS*
RASG-MID CONCLUSION 8/3:	*MID-RASP 2020-2022 EDITION*
RASG-MID CONCLUSION 8/4:	*NATIONAL AVIATION SAFETY PLAN (NASP)*
RASG-MID DECISION 8/5:	*TERMS OF REFERENCE OF THE SEIG*
RASG-MID CONCLUSION 8/6:	*RASG-MID CART IMPLEMENTATION PLAN OF ACTIONS*
RASG-MID DECISION 8/7:	*FREQUENCY OF THE RASG-MID MEETINGS*
RASG-MID DECISION 8/8:	*DISSOLUTION OF THE RSC*
RASG-MID DECISION 8/9:	*RASG-MID TERMS OF REFERENCE (TOR)*
RASG-MID DECISION 8/10:	*FOURTH EDITION OF RASG-MID PROCEDURAL HANDBOOK*

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MIDANPIRG CONCLUSION 18/2:	*PROCEDURE FOR TEMPORARY RVSM APPROVAL*
MIDANPIRG CONCLUSION 18/3:	*PERFORMANCE BASED COMMUNICATION AND SURVEILLANCE (PBCS)*
MIDANPIRG CONCLUSION 18/4:	*MID RVSM SAFETY MONITORING REPORT (SMR) 2019*
MIDANPIRG CONCLUSION 18/5:	*MID RVSM SAFETY MONITORING REPORT (SMR) 2020*
MIDANPIRG CONCLUSION 18/6:	*PREVENTING NON-RVSM APPROVED AIRCRAFT FROM OPERATING WITHIN MID RVSM AIRSPACE*
MIDANPIRG CONCLUSION 18/7:	*MID RVSM SAFETY MONITORING REPORT (SMR) 2021*
MIDANPIRG CONCLUSION 18/8:	*MIDANPIRG CART IMPLEMENTATION "PLAN OF ACTIONS"*
MIDANPIRG CONCLUSION 18/9:	*THE MID REGION AIR NAVIGATION REPORT – 2020*
MIDANPIRG CONCLUSION 18/10:	*THE MID REGION AIR NAVIGATION REPORT - 2021*
MIDANPIRG CONCLUSION 18/11:	*ANS PERFORMANCE MONITORING*
MIDANPIRG CONCLUSION 18/12:	*REVISED MID AIR NAVIGATION STRATEGY*
MIDANPIRG CONCLUSION 18/13:	*PROPOSAL FOR AMENDMENT TO THE MID eANP VOLUME II, TABLE ATM II-MID-I: MID REGION ATS ROUTE NETWORK*
MIDANPIRG CONCLUSION 18/14:	*PROPOSAL FOR AMENDMENT TO THE MID ANP VOLUME II, PART III - CNS*
MIDANPIRG CONCLUSION 18/15:	*AMENDMENT TO THE MID eANP VOLUME III*
MIDANPIRG CONCLUSION 18/16:	*AMENDMENT OF THE eANP VOLUME III PART 0 AND PART I*
MIDANPIRG DECISION 18/17:	*DIGITAL DATASETS IMPLEMENTATION AD-HOC WORKING GROUP (DDI-AD-HOC WG)*
MIDANPIRG CONCLUSION 18/18:	*EAD CHARGING MECHANISM*
MIDANPIRG CONCLUSION 18/19:	*MID REGION AIM IMPLEMENTATION ROADMAP*
MIDANPIRG CONCLUSION 18/20:	*AIR NAVIGATION DEFICIENCY RELATED TO NON-IMPLEMENTATION OF TOD AREA 2A/TOFP AND OLS*

MIDANPIRG CONCLUSION 18/21:	*AIM WEBINARS*
MIDANPIRG CONCLUSION 18/22:	*ACTION PLAN FOR THE IMPLEMENTATION OF RNAV TO RNP CHART NAMING CONVENTION*
MIDANPIRG CONCLUSION 18/23:	*PBN SIDS AND STARS IMPLEMENTATION*
MIDANPIRG CONCLUSION 18/24:	*STATES NEEDS FOR THE BBB-AOP IMPLEMENTATION*
MIDANPIRG CONCLUSION 18/25:	*AIRPORT PLANNING SEMINAR*
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MIDANPIRG DECISION 18/42:	*NAV MON PLAN AD-HOC ACTION GROUP*
MIDANPIRG CONCLUSION 18/43:	*UPDATE OF THE MID REGION SURVEILLANCE PLAN (MID DOC 013)*

MIDANPIRG CONCLUSION 18/44:	*WRC23 PREPARATORY WORKSHOP*
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MIDANPIRG DECISION 18/55:	*TERMS OF REFERENCE OF THE CNS SG*
MIDANPIRG DECISION 18/56:	*TERMS OF REFERENCE OF THE MET SG*
MIDANPIRG DECISION 18/57:	*TERMS OF REFERENCE OF THE PBN SG*
MIDANPIRG DECISION 18/58:	*NEW EDITION OF THE MIDANPIRG PROCEDURAL HANDBOOK*

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: PROVISIONAL AGENDA

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

REPORT ON AGENDA ITEM 2: GLOBAL AND REGIONAL DEVELOPMENT

GLOBAL AVIATION DEVELOPMENTS

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

GASP

2.2 The meeting was informed of the latest developments related to the 2020-2022 edition of the Global Aviation Safety Plan (GASP). The meeting noted that ICAO launched new guidance material, tools and activities in 2020, to support States and Industry to achieve the GASP goals and facilitate the development of National Aviation Safety Plans. It was noted that the Secretariat presented proposals for the content of the 2023-2025 edition of the GASP, developed by the GASP Study Group, to the Air Navigation Commission (ANC). These proposals will be presented to the High-level Conference on COVID-19 (HLCC-2021), tentatively scheduled for October 2021, for discussion and agreement.

Safety Management

2.3 With regard to Safety Management, the meeting noted that the Safety Management Manual (SMM) (Doc 9859), 4th edition is available on the Safety Management Implementation Website www.icao.int/SMI. It was noted that the 5th edition of SMM is expected to be available in 2024. The meeting was informed that currently a collection of practical implementation examples is taking place and the focal points were invited to contribute through the SMI secure portal. The meeting was informed of the various Safety management training courses available at ICAO website and the various SM tools available on iSTARS. The meeting was also apprised of ICAO's efforts tu support States during the COVID-19 pandemic, in particular the publication of the Handbook for CAAs on the Management of Aviation Safety Risks related to COVID-19 (Doc. 10144) and the deployment of the Aviation Safety Risk Management iPack.

Runway Safety

2.4 It was noted that the runway safety programme was revitalized during 2020through, in particular the conduct of regular regional coordination meetings. With respect to the Global Reporting Format (GRF), the meeting was informed that many States in the AFI and APAC Regions, similar to the MID Region, would be facing challenges to meet the effective date of 4 November 2021.

Cargo safety

2.5 The meeting was informed that provisions for operators to conduct safety risk assessments on the carriage of items in cargo compartments were adopted by the Council and became applicable in November 2020. Supporting guidance was published in Doc 10102 "*Guidance for Safe Operations Involving Aeroplane Cargo Compartments*".

Space-based ADS-B

2.6 The meeting noted that the ICAO Council recently approved separation minima, for inclusion in Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM, Doc 4444), which capitalizes on this new surveillance capability. These newly approved separation minima provide a significant step towards achieving the performance ambitions of the Global Air Navigation Plan.

Global Tracking

2.7 The meeting noted that ICAO completed the operator-related provisions supporting the implementation of the Global Aeronautical Distress and Safety System Concept of Operations (GADSS). The operator-related provisions supporting the implementation of the GADSS address requirements for operators to develop procedures to: track their aircraft; monitor the aircraft tracking systems in use for their aircraft; respond to any information received from such tracking systems in an appropriate manner; and require that information received from an autonomous distress tracking system to be automatically forwarded to the location of an aircraft in distress repository (LADR).

Monitoring and Oversight Activities

2.8 The meeting was apprised of the latest developments related to the USOAP-CMA. The meeting was informed that the USOAP CMA certification renewal took place in 2020. With regard to activities, it was noted that on-site activities were suspended as of march 2020. However, off-site activities and transformation activities increased. It was noted that 4 audits; 5 ICAO coordinated validation missions (ICVMs); and 18 off-site validation activities were conducted. In addition, one mandatory information request (MIR) was issued, which resulted in the identification of a Significant Safety Concern (SSC). It was noted that for 2021, 9 validation activities and 2 SSP implementation assessments and 3 regional workshops are scheduled.

Trust Framework

2.9 With regard to the Trust Framework, the meeting noted that concept, policies and procedures, under development within the Trust Framework Study Group (TFSG), progressed towards a digital environment where communication parties should be able to mutually identify themselves and in which the information exchanged should not be able to be modified by unauthorized parties.

Amendments adopted

2.10 The meeting was apprised of the latest amendments to the ICAO Annexes, PANS and Manuals.

Future Events 2021 – 2022

2.11 The meeting noted the future ICAO events scheduled for 2021 and 2022, including the Aeronautical Information Management for Unmanned Traffic Management (AIM for UTM) (11 March 2021, (90 minute webinar), Management of Change Summit (21 to 25 March 2022 (provisional); Virtual Drone Enable Symposium 2021 (13- 15 April and 20 -21 April 2021); Traveler Identification Programme Symposium 2021 (TRIP2021) and First Joint ICAO/INTERPOL Passenger Data Exchange Forum (25 May and 28 May 2021) (virtual); High-level Conference on COVID-19 (HLCC-2021): one-week event from 18 to 22 October 2021 in an in-person setting, or; a two-week event from 12 to 22 October 2021, with half day meetings each day, in a virtual or hybrid setting.

Guidance material related to Crisis Management

2.12 The meeting was informed of the various efforts in place to support States during the COVID-19 pandemic. It was recalled that a comprehensive framework for crisis management has been established in a part of the EUR region. It was noted that there is a need for global guidance material related to crisis management for States in times of need. The meeting invited ICAO to consider and explore ways in the future to develop guidance material at the global level.

2.13 The meeting was apprised of the updates of the FAA's Model Civil Aviation Regulations Version 2.9 and 2.10, as highlighted in IP/4.

2.1 ***Review of action taken by the ANC and the Council on MIDANPIRG/17 and RASG-MID/7 Reports***

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

2.1.2 The meeting was presented with the outcome of the Council's review of the consolidated annual report on Planning and Implementation Regional Groups (PIRGs) and Regional Aviation Safety Groups (RASGs), covering the period from April 2019 to March 2020. Specifically, the review of the Report of the 17th Meeting of the Middle East Air Navigation Planning and Implementation Regional Group MIDANPIRG/17) and the Report of the 7th Meeting of the Regional Aviation Safety Group Middle East (RASG-MID/7) and the related Council actions taken.

2.2 ***NEW TERMS OF REFERENCE OF PIRGS AND RASGS***

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

2.2.2 The meeting was informed that the 40th Session of the ICAO Assembly, (24 September to 4 October 2019), decided to align the meeting schedule of the PIRGs and RASGs with the annual reporting requirement to the Council. It was noted that the Council, during the review of the Assembly Resolutions and Decisions endorsed the Assembly Decision for the PIRGs and RASGs to meet and Report to Council on an annual basis and that the Terms of Reference (ToRs) of PIRGs and RASGs were amended to include annual meetings. The meeting agreed that the MIDANPIRG and RASG-MID ToRs should be aligned, accordingly and their Procedural Handbooks be updated to accommodate the changes.

2.3 ***COVID-19 Impact on Aviation***

2.3.1 The subject was addressed in PPT/4 presented by the Secretariat. The meeting was apprised of the latest global and regional developments related to COVID-19.

Global Developments include the followings:

- Outcomes of Phase II of ICAO Council's Aviation Recovery Task Force (CART), including High-Level Cover Document (HLCD), Take-Off Guidance Document 2nd Edition and Testing and Cross-border Risk Management Measures Manual (Doc 10152);
- Implementation Packages (iPacks) to support the restart, recovery and resilience phases; and
- COVID-19 Response and Recovery Implementation Centre (CRRIC) to enable States to share information on their level of implementation with both ICAO and all other Member States.

Regional Developments include the followings:

- The MID CART Implementation Plan, which was endorsed by the Third DGCA-MID Virtual Meeting (7 December 2020), was developed in line with and in support of the Global Implementation Roadmap (GIR) with the objective to support the restart and recovery of the civil aviation system in the MID Region in line with the MID Region NCLB Strategy;
- The key activities in the MID Region to support States during the restart and recovery phase were in line with the following main 3 pillars of the MID CART Implementation Plan:1) Communication, Coordination and Collaboration; 2) Implementation Support and 3) Monitoring and Reporting; and
- The Regional Implementation Status of CART Phase I & II and challenges faced by the MID Region.

2.3.2 With respect to the MID CART Implementation Plan, the meeting noted that a MIDANPIRG CART Implementation Plans of Actions (endorsed by the MSG/7 Meeting) and a RASG-MID CART Implementation Plans of Actions were developed to support the implementation by States and stakeholders with respect to air navigation and safety issues.

2.3.3 The meeting noted with appreciation that the iPack- Aviation Safety Risk Management related to COVID 19 is being implemented by ICAO for Oman (as a pilot project).

2.3.4 In the same vein, the meeting commended the ICAO MID Regional Office for its efforts and continuous support and close communications with States to ensuring a well-coordinated and harmonized implementation of the measures to support the restart and recovery of the aviation system in the MID Region.

ANSP preparation for global pandemics

2.3.5 The subject was addressed in WP/19 presented by UAE. The meeting noted the actions taken by UAE in response to COVID-19 Pandemic. In particular, similarly to international activities, on the national level the UAE established the "Aviation Resumption Accelerators Task Force". The purpose of the Task Force is to identify the challenges, plan cohesive return to normal operations, monitor the latest development and share the knowledge between all UAE aviation stakeholders. The meeting noted that guidelines were developed and implemented by the Air Navigation Sector of the GCAA at the Sheikh Zayed Air Navigation Area Control Centre. The main purpose of the guidelines was to provide information and processes to help the ANSPs to identify and decide the contingency strategies and concept of operation best suited to meet their needs in certain circumstances.

2.3.6 Based on the above, the meeting agreed that the MID Region ATM Contingency Plan should be amended to include provisions related to the management of public health pandemics; and encouraged States to adopt a unified contingency response and joint policy to strengthen future collaboration.

Bahrain's experience (IP/9):

2.3.7 The meeting was apprised of the measures taken by Bahrain to ensure air traffic services continuity during the development of the COVID-19 pandemic, as highlighted in IP/9.

FAA's experience (IP/5 and IP/6)

2.3.8 The meeting noted that, with travel restrictions for inspectors during the COVID-19 pandemic, the FAA anticipated that certification/surveillance/oversight done by remote means would become a growing and permanent capability for more activities. The FAA's experience related to Remote Performance of Regulatory Certification and Oversight Activities is highlighted in IP/5.

2.3.9 The meeting noted that, as a result of the COVID-19 pandemic, ICAO received increasing requests from Member States to convert their training courses from classroom to virtual. ICAO concurred with the request and asked the FAA to begin the conversion for its ICAO Government Safety Inspector (GSI) training courses into virtual delivery. More details on the subject are highlighted in IP/6.

REPORT ON AGENDA ITEM 3: COORDINATION BETWEEN MIDANPIRG AND RASG-MID

3.1 *Follow-up on the Joint Conclusions of MIDANPIRG/17 and RASG-MID/7*

3.1.1 The subject was addressed in PPT/5 presented by the Secretariat. The meeting was apprised of the progress achieved in the implementation of the MIDANPIRG/17 and RASG-MID/7 joint Conclusions and Decisions. The actions taken by States and the Secretariat on the above-mentioned Conclusions and Decisions are reflected in **Appendix 3.1A.**

3.1.2 With regard to the PIRG/RASG MID CONCLUSION 2: STATE LETTERS ONLINE MONITORING TOOL (SLOMT), the meeting was informed that the budget to develop the SLOMT was ensured by ICAO, however, some delay was observed for the development of the tool due to COVID-19. Nevertheless, the SLOMT is expected to be available by the end of 2021.

3.2 *Subjects of interests between MIDANPIRG and RASG-MID (NMAC, RPAS, GRF, etc)*

3.2.1 The subject was addressed in PPT/5 presented by the Secretariat. The meeting reviewed the Table listing the subjects in which both MIDANPIRG and RASG-MID have interest with an assignment of the leading Group as at **Appendix 3.2A**.

Accidents and Incidents Analysis

3.2.2 The meeting noted that, based on the analysis of the safety data (incidents and serious incidents safety data), the RASG-MID Annual Safety Report Group, through the 9th Edition of the Annual Safety Report, reconfirmed that the MID Air Collision (MAC) is one of the 5 main Regional Operational Safety Risks. The meeting recalled that the MIDANPIRG/17 & RASG-MID/7, through PIRG/RASG-MID Decision 3, established the Near MID Air Collision (NMAC) Action Group to carry out further analyses of the reported MAC incidents and provide feedback to the ATM SG and ASRG. However, it was noted with concern that this Action Group could not achieve the mandate assigned to it due to the difficulties/challenges faced (lack of data, COVID-19, etc). The meeting noted also that MAC has been identified at the global level as a High Risk category (HRC), and in the MID Regional Aviation Safety Plan (MID-RASP), MAC, it was identified that there is a need for the MID region to build up its capability to collect and analyze safety data pertaining to MAC.

3.2.3 Based on the above, the meeting urged the members of the NMAC Action Group (Bahrain, Iran, Oman, Saudi Arabia, UAE, IATA) to provide the ICAO MID Office, as soon as possible, with the contact details of their designated members, in order to be able to provide the required deliverables (recommendations, mitigation measures, etc). It was also agreed that the Action Group should elect a Rapporteur during its first meeting.

Remotely Piloted Aircraft System (RPAS) and Unmanned Aircraft Systems (UAS)

3.2.4 The subject was addressed in PPT/5 presented by the Secretariat and WP/43 presented by UAE. The meeting recognized that the emergence of Remotely-Piloted Aircraft System (RPAS) with new applications and new aircraft operations is changing the way airspace is configured and managed; and States are facing an increasing challenge to ensure safe integration of the RPAS into the non-segregated airspace.

3.2.5 The meeting recalled that the MIDANPIRG/17 & RASG-MID/7 encouraged States to consider the developments related to RPAS, and take necessary measures for the establishment of the required legislative and regulatory framework to ensure safe integration of the RPA into the non-segregated airspace. The meeting urged States to report any safety occurrence related to RPA operations to the ICAO MID Regional Office on regular basis; and encouraged States to use the guidance material

related to RPAS provided in the ICAO Doc 10019 and the information available on the RPAS webpage: https://www4.icao.int/rpas.

3.2.6 The meeting noted that due to the use of advanced technologies, these vehicles make use of new types of flight profiles and capabilities and generally operate at much lower altitudes, which current airspace and air traffic management systems were not designed to accommodate. It is therefore required to address these shortfalls in design and system performance as well as to enhance structures and systems to support and manage the new demands for airspace monitoring and management by means of an Unmanned Traffic Management (UTM) System.

3.2.7 The meeting agreed that overall, the available guidance material for UTM implementation offers a basic starting point, while the rapid growth of RPAS creates an urgency for the States to plan and start the implementation of their UTM systems.

3.2.8 Based on the above, the meeting agreed to the establishment of an Action Group composed of the Chairpersons of the ATM SG, ASRG and SEIG, Bahrain, Egypt, Iran, Saudi Arabia, UAE, FAA, Boeing, IATA, CANSO and ICAO MID to strengthen the collaboration between States and stakeholders for an orderly growth of unmanned air traffic; and to provide necessary guidance to States related to Unmanned Traffic Management (UTM). Draft Terms of Reference (TOR) for the Action Group is at **Appendix 3.2B**, for further review and consideration by the Action Group. Accordingly, the meeting agreed to the following Decision:

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

That, the RPAS/UTM Action Group be:

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

b) composed of the Chairpersons of the ATM SG, ASRG and SEIG; and
- *Mr. Mohamed Zainal from Bahrain*
- *Mr. Ahmed Saeid and Ehab Raslan from Egypt*
- *Mr. Ali Aezami from Iran*
- *Mr. Nedal Raboey, and Mr. Alwaleed Alenezi from Saudi Arabia*
- *Mr. Mohammed Khamis Al Baloushi from UAE*
- *Ms. Elisabeth Walker and Mr. Chris Swider from FAA*
- *Mr. Benjamin Ivers from Boeing*
- *Ms. Sharron Caunt, Mr. Jihad Faqir and Ms. Zainab Khudhair from IATA*
- *Mr. Shayne Campbell from CANSO*
- *ICAO MID*

3.2.9 The meeting agreed that the above Decision would be revisited by MIDANPIRG/19 to assess the need for the establishment of an RPAS/UTM Task Force based on the progress made and the latest developments.

Global Reporting Format for Runway Surface Conditions(GRF)

3.2.10 The subject was addressed in PPT/5 presented by the Secretariat. The meeting noted that in order to support States to implement the Global Reporting Format Methodology a Webinar was successfully conducted on 27 October 2020, as part of the SEIs' actions included in the MID RASP to continually reduce fatalities and the risk of fatalities related to Runway Excursions.

3.2.11 The meeting reviewed and agreed on the milestones defined in the MID Region GRF Implementation Plan Template/Milestones at **Appendix 3.2C**; and agreed to the following Conclusion to replace and supersede the RSC Conclusion 7/8:

PIRG/RASG MID CONCLUSION 2: ***MID REGION GRF IMPLEMENTATION ACTION PLAN***

That, States be urged to:

a) nominate a National GRF implementation Focal Point to coordinate the implementation activities at the National level;

b) provide the ICAO MID Office with the contact details of their nominated GRF Focal Points by end of February 2021; and

*c) provide regular progress reports/updates on the subject to the ICAO MID Office using the MID Region GRF Implementation Plan Template/Milestones at **Appendix 3.2C**.*

3.3 ***RVSM Operations and Monitoring in the MID Region***

3.3.1 The subject was addressed in PPT/6 presented by the Secretariat and the MIDRMA. The meeting reviewed the outcomes of the MIDRMA Board/16 meeting (Amman, 14 – 16 January 2020).

3.3.2 The meeting recalled that a Safety Protocol had been opened for the case of high reported LHDs between Muscat and Mumbai. The meeting noted that the issue had not been resolved and that the MIDRMA and ICAO MID Office are in close coordination with the concerned States, MAAR and ICAO APAC Office to explore mitigation measures. The meeting reviewed the procedure for the processing of RVSM Safety Protocol at **Appendix 3.3A**; and agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/1: ***MID RVSM SAFETY PROTOCOL PROCEDURE***

*That, the MID RVSM Safety Protocol Procedure at **Appendix 3.3A**, is endorsed.*

3.3.3 The meeting noted that the ICAO provisions do not address the initial process of granting RVSM approval for new aircraft type not previously part of the operator fleet and there is no procedure to guide the responsible Authority. Accordingly, and due to the increased enquiries received recently from several airworthiness inspectors, the meeting reviewed the procedure, developed by the MIDRMA, on granting Temporary RVSM Approvals, and agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/2: ***PROCEDURE FOR TEMPORARY RVSM APPROVAL***

*That, the procedure for granting Temporary RVSM Approvals at **Appendix 3.3B**, is endorsed.*

3.3.4 The meeting recalled that the airspace users shall comply with RCP and RSP specifications prescribed for the communications and surveillance capabilities within specific airspace to meet the requirements for air traffic service provision. The RMAs were requested to monitor compliance with the set-out specifications and share information among each other's. The meeting was

informed that there is no RCP/RSP specifications prescribed by MID States for the provision of ATS. However, a process should be put in place to ensure that information related to the aircraft registered in MID States and operating in airspace where RCP/RSP specifications are prescribed, are provided and shared with the MIDRMA. The meeting agreed that the subject should be addressed also by the RASG-MID, ATM SG and CNS SG. Accordingly, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/3: PERFORMANCE BASED COMMUNICATION AND SURVEILLANCE (PBCS)

That,

a) States provide the MIDRMA on monthly basis with the information related to the list of registered aircraft (fleet) granted approvals to operate in PBCS airspaces where compliance with specific RCP/RSP are required;

b) the MIDRMA is authorized to coordinate and share information with other RMAs with respect to PBCS compliant aircraft and follow-up with MID States, as required;

c) the MIDRMA functions and responsibilities be amended accordingly; and

d) the implementation of PBCS be addressed by the RASG-MID, ATM SG and CNS SG for appropriate actions.

3.3.5 The meeting recalled the outcomes of MSG/7 meeting, in particular Conclusions 7/4 and 7/5 related to the lack of provision of LHD reports, and noted with appreciation that a Training/Awareness Webinar on RVSM LHD Reporting was successfully held on 4 Nov 2020. This contributed to significantly increase the level of LHD reports provided by MID States in different categories, and enabled the MIDRMA to reflect more representative data in the development of the RVSM SMR-2019 and 2020.

3.3.6 The meeting reviewed and endorsed the MID RVSM Safety Monitoring Reports (SMR) 2019 and 2020 at Appendices **3.3C** and **3.3D**, respectively, and agreed to the following Conclusions:

MIDANPIRG CONCLUSION 18/4: MID RVSM SAFETY MONITORING REPORT (SMR) 2019

*That, the MID RVSM Safety Monitoring Report (SMR) 2019 at **Appendix 3.3C**, is endorsed.*

MIDANPIRG CONCLUSION 18/5: MID RVSM SAFETY MONITORING REPORT (SMR) 2020

*That, the MID RVSM Safety Monitoring Report (SMR) 2020 at **Appendix 3.3D**, is endorsed.*

3.3.7 The meeting noted with concern that an important number of non-RVSM approved aircraft are still operating within the RVSM airspace (filing "W" in the FPL), and agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/6: ***PREVENTING NON-RVSM APPROVED AIRCRAFT FROM OPERATING WITHIN MID RVSM AIRSPACE***

That, in order to prevent the Non-RVSM approved aircraft from operating within the MID RVSM airspace:

a) the MIDRMA:

i. develop a search engine of updated "Global RVSM Approval Database" under the MIDRMA website, which can help MID ATCUs to check the RVSM approval status of any aircraft entering their area of responsibility; and

ii. in order to increase the awareness on the subject, the MIDRMA issue a Bulletin which includes the list of the non-RVSM approved aircraft observed operating within the RVSM airspace and circulate it to all MIDRMA Member States on monthly basis; and

b) the MID States/ATCUs:

i. ensure that the non-RVSM approved aircraft listed in the MIDRMA Bulletin are not allowed to operate within the RVSM airspace; and

ii. report to MIDRMA any case of violation, including the cases of aircraft transferred from adjacent Regions/FIRs.

3.3.8 The meeting noted that for the sixth consecutive RVSM Safety Monitoring Report (since Libya joined the MIDRMA), Tripoli FIR has not been included in the RVSM safety analysis due to the lack of provision of traffic data (TDS) and LHD reports. The meeting noted that one of the reasons is that there has not been overflight traffic over Tripoli FIR. In addition, the MIDRMA confirmed that the Airworthiness Focal Point from Libya has been very active in providing the MIDRMA with required information related to RVSM approvals for Libyan registered aircraft, on regular basis. Therefore, the meeting agreed to the Recommendation to include in the SMR 2020, for the MIDRMA, in coordination with the ICAO MID Office, to organize a training/awareness campaign/webinar(s) for the concerned Staff in Libya (in particular the Tripoli ACC ATCOs).

3.3.9 With regard to the collection of data for development of the MID RVSM SMR 2021, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/7: ***MID RVSM SAFETY MONITORING REPORT (SMR) 2021***

That,

*a) the FPL/traffic data for the period **1 – 31 July 2021** and LHD Reports for the period **1 January 2021 to 31 December 2021** be used for the development of the MID RVSM Safety Monitoring Report (SMR 2021);*

b) only the appropriate Traffic Data as per MIDRMA requirements shall be submitted; any corrupted traffic data will be rejected;

*c) the traffic data must be submitted to the MIDRMA before **31 August 2021**; and*

d) the final version of the MID RVSM SMR 2021 be ready for presentation to and endorsement by MIDANPIRG/19.

3.4 *MIDANPIRG and RASG-MID Working Arrangements (face to face and virtual meeting; frequency of meeting, etc)*

3.4.1 The subject was addressed in PPT/7 presented by the Secretariat. The meeting was apprised of the global and regional developments related to PIRGs and RASGs working arrangements; and agreed that the following subjects should be addressed by each Group under the Agenda Item related to Working Arrangements and Future Work Programme:

- frequency of the MIDANPIRG & RASG-MID meetings;
- conduct of virtual meetings;
- Organization Structure;
- delegation of authority to subsidiary bodies; and
- Fast Track/Approval by passing procedure.

REPORT ON AGENDA ITEM 4: RASG-MID WORK PROGRAMME

4.1 Global Aviation Safety Developments

4.1.1 The subject was addressed in Agenda Item 2 through PPT/8 presented by the Secretariat.

4.2 Regional Performance Framework for Safety

Follow-up on the RASG-MID/7 and RSC/7 Conclusions and Decisions

4.2.1 The subject was addressed in WP/9 presented by the Secretariat. The meeting reviewed the progress made for the implementation of the RASG-MID/7 and RSC/7 Conclusions and Decisions as at **Appendices 4.2A** and **4.2B**, respectively**.**

Outcomes of the ASRG/2 Meeting

4.2.2 The subject was addressed in WP/10 and PPT/10 presented by the ASRG Chairman and Secretariat, respectively. The meeting was apprised of data analysis and safety priorities for the MID Region, as well as the progress achieved in attaining the Safety Targets related to the identified Goals included in the MID Region Safety Strategy as at **Appendix 4.2C**.

4.2.3 Based on the analysis of the reactive and proactive/predictive safety information for the period 2015-2019, the safety priorities identified for the MID Region are:

1. Runway Excursion (RE) and Abnormal Runway Contact (ARC) during landing;
2. Loss of Control Inflight - (LOC-I);
3. Controlled Flight Into Terrain- (CFIT);
4. Mid Air Collision- (MAC); and
5. Runway Incursion- (RI).

4.2.4 The Emerging Safety Risks include GNSS outage and COVID-19 Pandemic outbreak.

4.2.5 The meeting reviewed and endorsed the 9th Edition of the MID-ASR and agreed to the following RASG-MID Conclusion:

RASG-MID CONCLUSION 8/1: 9TH ASR

That, the Ninth MID Annual Safety Report is endorsed and be posted on the ICAO MID Website.

4.2.6 The MID Annual Safety Reports ASRs are available at: https://www.icao.int/MID/MIDANPIRG/Pages/RASGMID-ASR.aspx

4.2.7 The meeting noted the main challenges facing the ASRG for the development of the ASRs, in particular:

- low level of serious incidents and incidents reporting by the States;
- lack of shared safety data analysis and safety recommendations by the States; and
- low participation in the meeting from the States and the organization.

4.2.8 In connection with the above, the meeting reiterated the importance of sharing of safety data analysis for improved ASRs development and urged States to provide the ICAO MID Office by end of April 2021 with the number of accidents, serious incidents and incidents, safety data analysis, and their associated safety recommendations for the period (2016 – 2020). Accordingly, the meeting agreed to the following RASG-MID Conclusion:

RASG-MID CONCLUSION 8/2: SHARING OF SAFETY DATA ANALYSIS

*That, in order to present an improved version of the 10th MID-ASR to the MID-ASRG/3 meeting, States, be urged to provide the ICAO MID Office by **30 April 2021** with the number of accidents, serious incidents and incidents, safety data analysis/information, and their associated safety recommendations for the occurrence categories listed in **Appendix 4.2D** for the past 5 years (2016 – 2020), using the Template in **Appendix 4.2E**.*

Outcomes of the SEIG/1 Meeting

4.2.9 The subject was addressed in WP/11 and PPT/11 presented by the SEIG Chairman and Secretariat, respectively. The meeting was apprised of the proposed SEIs and their respective actions outlined in the MID Regional Aviation Safety Plan (MID-RASP) 2020-2022 Edition. The meeting commended the SEIG and Secretariat for the development of the 1st MID-RASP 2020-2022 Edition, which considers and supports the objectives and priorities of the GASP 2020-2022 Edition and emphasizes the importance of identifying and mitigating risks at MID Region level.

4.2.10 The meeting noted that the MID Region Safety Strategy is included in the MID-RASP as an Appendix, and that the MID-RASP identifies for each Goal, SEI(s), which are mapped to the Strategy including their respective actions. Therefore, to address regional operational risks, organizational issues, and emerging risks, 16 SEIs and 43 actions have been included in the MID-RASP.

4.2.11 Based on the above, the meeting reviewed and endorsed the MID-RASP 2020-2022 Edition, and agreed to the following RASG-MID Conclusion:

RASG-MID CONCLUSION 8/3: MID-RASP 2020-2022 EDITION

That, the MID-RASP 2020-2022 Edition is endorsed and be posted on the ICAO MID Website.

4.2.12 The MID-RASP 2020-2022 Edition is available at https://www.icao.int/MID/MIDANPIRG/Documents/Plans/MID-RASP1.pdf

4.2.13 With regard to Goal 4 "Expand the use of Industry Programmes" and related action "A1-Encourage IATA's IOSA and ISAGO registrations through safety promotion", the meeting noted with appreciation that IATA MENA will organize webinars in coordination with the ICAO MID Office for States that have not yet signed the safety MOU to enhance their oversight capabilities with the aim to meet the performance targets in the MID Region Safety Strategy.

4.2.14 With respect to the National Aviation Safety Plans (NASP), it was highlighted that the MID-RASP establishes the first layer of priorities, which is further complemented at national level by NASP, and would ensure the timely implementation of the SEIs to address safety deficiencies and mitigate risks to attain the MID Region Safety Targets.

4.2.15 The meeting was apprised of the guidance and activities related to NASP development, which are available at https://www.icao.int/safety/GASP/Pages/NATIONAL-AVIATION-SAFETY-PLAN-(NASP).aspx#Guidance%20on%20NASP%20Development, including:

- Doc 10131, Manual on the Development of Regional and National Aviation Safety (Arabic and English) including NASP fillable template; and

- NASP Checklist included in the Cir 358.

4.2.16 In the same vein, it was highlighted that ICAO will be conducting a series of webinars on the GASP and NASP implementation, covering the current GASP, the NASP content and the use of the roadmap to build safety enhancement initiatives in a NASP. Registration for the following webinars could be done through: https://www.icao.int/Meetings/webinar-series/Pages/GASP-Webinar-Series-.aspx

- Session 1 (16 March 2021 at 0900 EST): ICAO's Global Safety Strategy: GASP;
- Session 2 (30 March 2021 at 0900 EST): Introduction to the NASP; and
- Session 3 (13 April 2021 at 0900 EST): Using the Roadmap to Develop a NASP.

4.2.17 In connection with the above, the meeting recalled that a GASP Workshop was conducted by the ICAO MID Office during the RASG-MID/6 (Bahrain, 26-28 September 2017); and an ACAO/ICAO GASP 2020-2022 & NASP Workshop was conducted back-to-back with the RSC/7 meeting (1-2 March 2020). It was agreed that a similar webinar/workshop would be organized, preferably during 2021 or beginning of 2022, with the objective to provide a forum for States in the MID Region to share their experiences related to the development and implementation of their NASPs.

4.2.18 Based on the foregoing, the meeting agreed to the following RASG-MID Conclusion:

RASG-MID CONCLUSION 8/4: NATIONAL AVIATION SAFETY PLAN (NASP)

That, States

a) be requested to establish a NASP in line with the GASP, MID-RASP, ICAO Doc 10131 and Circular 358; and considering the operational safety needs identified at National level;

b) nominate NASP' Focal Points to provide progress/update on the development and implementation of their NASPs;

c) consider the recommended MID-RASP SEIs for inclusion in their NASPs, as appropriate;

d) be encouraged to participate in the series of webinars on the GASP and NASP implementation organized by ICAO;

e) be encouraged to share their experiences related to the development and implementation of their NASPs during the MID NASP Webinar/Workshop to be organized end of 2021 or beginning of 2022; and

f) provide a progress report on the development and implementation of their NASPs for presentation to the RASG-MID/9 meeting.

4.2.19 The meeting reviewed and endorsed the SEIG Terms of Reference (TORs); and agreed to the following RASG-MID Decision:

RASG-MID DECISION 8/5: TERMS OF REFERENCE OF THE SEIG

That, the Terms of Reference of the SEIG at ***Appendix 4.2F*** *are endorsed.*

Outcomes of the ASPIG/2 Meeting

4.2.20 This subject was addressed in PPT/12 presented by the Secretariat. The meeting was apprised of the latest status of implementation of both Aerodrome Certification (67% of Aerodromes were Certified) and Runway Safety Teams (58% of RST established at international aerodromes).

4.2.21 The meeting noted that the monitoring of the progress of the Aerodrome Certification and establishment of RSTs should rely on regular and accurate information on Aerodrome Certification and RST implementation processes and urged States, that have not yet done so, to submit their Plans/Progress to the ICAO MID Office for processing.

Strategy for the Enhancement of Cooperation in the Provision of AIG Services in the MENA Region

4.2.22 The subject was addressed in WP/13 presented by the Secretariat. The meeting recalled that:

- the DGCA-MID/4 meeting (Muscat, Oman, 17-19 October 2017) endorsed the Strategy for the Enhancement of Cooperation in the Provision of AIG Services in the MENA Region;
- the DGCA-MID/5 meeting (Kuwait, 4- 6 November 2019) endorsed the AIG Regional Cooperation Mechanism (ARCM); and
- the RSC/7 meeting (Cairo, Egypt, 3-5 March 2020) endorsed the ARCM Action Plan and agreed that an ARCM Technical Coordination meeting be organized by the ICAO MID Office in Cairo, 1-4 June 2020.

4.2.23 Due to the COVID-19 pandemic outbreak, the ARCM Technical Coordination meeting was cancelled and the ICAO MID Office followed up with the ARCM Focal Points and organized a virtual meeting on 10 December 2020 to develop/finalize the Draft ARCM MoU. Accordingly, the meeting agreed that the AIIG addresses the ARCM matters within its framework and provide updated progress to the RASG-MID/9 meeting.

Other Regional aviation safety projects, initiatives and activities

MENA RSOO

4.2.24 The subject was addressed in WP/14 presented by Saudi Arabia. The meeting was apprised of the progress related to the establishment of the MENA RSOO. The meeting recalled with appreciation that in addition to the hosting of the MENA RSOO, Saudi Arabia will provide financial and in-kind support for the first 2 years of operations of the MENA RSOO.

4.2.25 With respect to the Second MENA RSOO Steering Committee meeting (DGs Level), which was postponed due to the unforeseen COVID-19 circumstances, the meeting agreed that in order to facilitate participation of the DGs, the Second MENA RSOO Steering Committee meeting would be organized back-to-back with the DGCA-MID/6 planned to be hosted by UAE in Abu Dhabi, beginning of November 2021.

RASG-MID CART Implementation Plan of Actions

4.2.26 The subject was addressed in WP/15 presented by the Secretariat. The meeting noted that the support for the implementation of the CART Recommendations 1, 2, 3 and 12, is provided to States, in close collaboration with all concerned stakeholders, within two main frameworks: the RASG-MID and RPTF Work Stream 2- Operational Safety Measures.

4.2.27 It was highlighted that the MID-RASP, through its strategic approach focuses on organizational challenges/issues, regional operational safety risks, and emerging risks including COVID-19 pandemic outbreak. Taking into consideration the actions which have been taken to ease the impact of COVID-19, additional safety actions would be developed and covered under the first focus area (organizational challenges) in the MID-RASP by the SEIG, in terms of SEIs and associated actions.

4.2.28 In order to support the implementation of the CART Recommendations related to safety, in line with the MID CART Implementation Plan, which was endorsed by the Third DGCA-MID Virtual Meeting (7 December 2020), the RASG-MID CART Implementation Plan of Actions was developed as at **Appendix 4.2G**.

4.2.29 The meeting reviewed the RASG-MID CART Implementation Plan of Actions, and agreed to the following RASG-MID Conclusion:

RASG-MID CONCLUSION 8/6: RASG-MID CART IMPLEMENTATION PLAN OF ACTIONS

*That, the RASG-MID CART Implementation Plan of Actions at **Appendix 4.2G** is endorsed.*

4.3 RASG-MID Working Arrangements and Future Work Programme

4.3.1 The subject was addressed in WP/16 and WP/17 presented by the Secretariat.

RASG-MID Organizational Structure and Working Arrangements

4.3.2 With regard to the RASG-MID working arrangements, the meeting considered the following:

- New generic Terms of Reference (TOR) of PIRGs & RASGs approved by the President of the Council on 7 August 2020 mandating the need for PIRGs & RASGs to meet on annual basis;
- Need to review the RASG-MID Organizational Structure considering the new TOR of the RASG-MID;
- DGCA-MID/5 Conclusion 5/2 related to the frequency of the MIDANPIRG and RASG-MID meetings;
- Enhancement and synergy between the regional groups to the maximum extent possible;
- Successful experience of organizing the MIDANPIRG and RASG-MID meetings concurrently; and
- Initial discussion during the Plenary Session related to MIDANPIRG and RASG-MID Working Arrangements.

4.3.3 In connection with the above, the meeting agreed that the RASG-MID and MIDANPIRG meetings will be organized on an annual basis concurrently in an in-person setting. However, the Groups have the flexibility to decide to organize the meetings in a virtual or hybrid setting, considering the circumstances, availability of host, resources, global and regional developments, feedback from States, progress and outcomes of the Groups, etc. Accordingly, the meeting agreed to the following RASG-MID Decision:

RASG-MID DECISION 8/7: FREQUENCY OF THE RASG-MID MEETINGS

That, the RASG-MID meetings be organized on an annual basis concurrently with the MIDANPIRG in an in-person setting, unless decided otherwise (the meetings could be organized in a virtual or hybrid setting, if decided so by the Groups, considering the circumstances, availability of host, resources, global and regional developments, feedback from States and progress and outcomes of the Groups).

4.3.4 The meeting agreed also that, since RASG-MID will meet on an annual basis and considering that the membership/composition of the RSC is identical to that of RASG-MID, the RSC should be dissolved. Accordingly, the meeting agreed to the following RASG-MID Decision:

RASG-MID DECISION 8/8: DISSOLUTION OF THE RSC

That,

a) the RSC is dissolved; and

b) the RASG-MID Organizational Structure be updated as at **Appendix 4.3A**.

4.3.5 In line with the above, the meeting commended Mr. Mohammad Al Dossari, Chairperson of the RSC, Assistant Director General-Air Accident Investigation, GCAA, UAE, for his remarkable support to the RASG-MID since its establishment in different capacities and positions. The meeting thanked Mr. Al Dossari, for his continuous support.

4.3.6 Taking into consideration the establishment of the new Groups, Dissolution of the RSC revised Organizational Structure and the new RASGs TOR, the meeting agreed that there is no need to change the current working arrangements of the RASG-MID, including the fast track/approval by passing

procedure. The meeting was of the view that sufficient lead-time should be provided for the evaluation of the efficiency of the new Organizational Structure and working arrangements, before considering any change.

Chairmanship

4.3.7 The meeting noted the status of the Chairpersons and Vice Chairpersons of the RASG-MID and its Groups as at **Appendix 4.3B**. Taking into consideration the current situation and dynamic circumstances in particular related to COVID-19 and its impact on the RASG-MID Work Programme, the meeting agreed that the Chairperson and Second Vice-Chairperson be renewed for one (1) additional term/meeting; and the election of Chairpersons should be included in the Agenda of the RASG-MID/9 meeting, which will be organized in an in-person setting in 2022. The meeting noted that Saudi Arabia supported the above-decision and re-conformed its willingness to support the RASG-MID activities; and that it may nominate a qualified person to chair the RASG-MID during the RASG-MID/9 Meeting.

4.3.8 With respect to the vacant position of the First Vice-Chairperson further to the retirement of Mr. Abdullah Al Ojaili, Ex Assistant Director General for Safety, PACA, Oman, the meeting expressed its gratitude to Mr. Al Ojaili for his kind support in the capacity of First Vice-Chairperson since the establishment of the RASG-MID.

4.3.9 In connection with the above, the meeting elected unanimously Mr. Mubarak Saleh Al Gheilani, Acting Director General Civil Aviation Regulation, Oman CAA, as the First Vice-Chairperson of the RASG-MID.

RASG-MID Terms of Reference

4.3.10 The meeting reviewed the revised RASG-MID TOR, as at **Appendix 4.3C**. Accordingly, the meeting agreed to the following RASG-MID Decision:

RASG-MID DECISION 8/9: RASG-MID TERMS OF REFERENCE (TOR)

*That, the RASG-MID Terms of Reference (ToR) be amended as at **Appendix 4.3C**, in line with the Generic TOR of RASGs approved by the President of the Council on 7 August 2020.*

Procedural Handbook

4.3.11 The meeting recognized that the RASG-MID Procedural Handbook requires a lot of amendments; and agreed that the Secretariat, in coordination with the RASG-MID Chairpersons develop a new Edition of the Handbook to reflect all necessary changes, including those approved by the RASG-MID/8 meeting. Accordingly, the meeting agreed to the following RASG-MID Decision:

RASG-MID DECISION 8/10: FOURTH EDITION OF RASG-MID PROCEDURAL HANDBOOK

That, the ICAO MID Office, in coordination with the RASG-MID Chairpersons, develop a new Edition of the RASG-MID Procedural Handbook, for presentation to and endorsement by the RASG-MID/9 meeting.

5th MID Region Safety Summit

4.3.12 The subject was addressed in WP/18 presented by the Secretariat. Taking into consideration the latest developments, including the challenges caused by the COVID-19, the meeting noted that the Summit could not be conducted, as initially planned (in 2021).

4.3.13 The meeting agreed that the Summit should be scheduled for the second half of 2022 and its programme should include: COVID-19 impact on aviation safety, GASP 2023-2025 and NASPs.

4.3.14 The meeting noted with appreciation that Saudi Arabia has generously re-confirmed the hosting of the Fifth MID Region Safety Summit. The exact dates of the 5th Safety Summit will be coordinated between the ICAO MID Office, the RASG-MID Chairperson and Saudi Arabia.

REPORT ON AGENDA ITEM 5.1: GLOBAL AND REGIONAL AIR NAVIGATION DEVELOPMENTS

5.1 The subject was addressed in Agenda Item 2 presented in PPT/8 by the Secretariat.

Bahrain New ACC

5.2 The subject was addressed in PPT50 and IP/8 presented by Bahrain. The meeting was apprised of the progress achieved in the implementation of the project related to Bahrain new ACC, which is expected to be completed by April 2022.

Bahrain Air Navigation Human Resource Development

5.3 The subject was addressed in IP/10 presented by Bahrain. The meeting was apprised of the progress achieved by Bahrain in the implementation of their Air Navigation Human Resource Development Program, which includes the recruitment and training of Air Traffic Controllers (ATCO) and Air Traffic Electronics Safety Personnel (ATSEP).

MIDANPIRG CART Implementation "Plan of Actions"

5.4 In light of the MSG dissolution, the meeting endorsed the following Conclusion:

MIDANPIRG CONCLUSION 18/8: MIDANPIRG CART IMPLEMENTATION "PLAN OF ACTIONS"

That, in order to ensure States' ANS and related services provisions continuity, and the preparedness for the recovery phases:

*a) the MIDANPIRG CART Implementation "Plan of Actions" at **Appendix 5.1A** is endorsed; and*

*b) States, ANSPs, Airspace users, airport operators and all concerned stakeholders are urged to support the implementation of the Plan of Actions at **Appendix 5.1A**, and exchange relevant operational data.*

REPORT ON AGENDA ITEM 5.2: AIR NAVIGATION PLANNING AND IMPLEMENTATION

Follow-up MIDANPIRG/17 and MSG/7 Conclusion

5.2.1 The subject was addressed in WP/20 presented by the Secretariat. The meeting reviewed the progress made in the implementation of MIDANPIRG/17 and MSG/7 Conclusions and Decisions. The actions taken by States and the Secretariat on the above-mentioned Conclusions and Decisions were reviewed and the updated list is provided at **Appendix 5.2A.**

5.2.2 The meeting was apprised of the progress made for the implementation of the MSG/7 Conclusions and Decisions as at **Appendix 5.2B**.

5.2.3 Further to the meeting agreement to dissolve the MIDANPIRG Steering Group (AI 5.4, MIDANPIRG Decision 18/49, refers), the meeting agreed to endorse all MSG/7 Conclusions/ Decisions that are still Ongoing as MIDANPIRG/18 Conclusions/Decisions. This is reflected under the relevant sections.

MID Region Air Navigation priorities and targets (MID AN Reports)

5.2.4 The subject was addressed in WP/21 presented by the Secretariat. The meeting recalled that the MSG/7 meeting, through Conclusion 7/8, agreed that the ICAO MID Office should start the development of the MID Region Air Navigation Report - 2020.

5.2.5 The meeting was apprised of the status of implementation of the priority 1 ASBU Block 0 Modules. The meeting noted that the overall implementation of priority 1 ASBU Block 0 Modules in the MID Region in 2020 reached 58% compared to 56% in 2019.

5.2.6 The meeting noted that Lebanon, Qatar, Saudi Arabia and UAE made a good progress in the implementation of the priority 1 ASBU Block 0 Modules. From a regional perspective, the progress for the implementation of B0-ACAS, B0-SNET and B0-AMET is very good. However, the progress for the implementation of B0-ACDM is far below expectation.

5.2.7 The meeting reviewed and endorsed the MID Region Air Navigation Report – 2020. Accordingly, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/9: THE MID REGION AIR NAVIGATION REPORT – 2020

That, the MID Region Air Navigation Report – 2020 is endorsed and be posted on the ICAO MID website.

5.2.8 The MID Region Air Navigation Reports are available at:
https://www.icao.int/MID/Documents/AN%20Reports/MIDANReport2020.pdf

5.2.9 The meeting urged States to provide the ICAO MID Office, with necessary data by 30 December 2021 for the development of the MID Region Air Navigation Report - 2021. Accordingly, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/10: THE MID REGION AIR NAVIGATION REPORT - 2021

*That, States be urged to provide the ICAO MID Office, with relevant data necessary for the development of the MID Region Air Navigation Report – 2021, by **30 December 2021**.*

Revised MID Air Navigation Strategy

5.2.10 The subject was addressed in WP/22 presented by the Secretariat. The meeting recalled that the MSG/7 agreed, through Conclusion 7/6, that States, Stakeholders and MIDANPIRG Sub-Groups should review the MID Region Air Navigation Strategy considering the GANP 6th edition.

5.2.11 The meeting noted with appreciation the collaborative efforts and actions taken by the ICAO MID Office, in coordination with States and stakeholders for the revision of the MID Region Air Navigation Strategy and its alignment with the 6th edition of the GANP. This included the conduct of joint ASBU Webinars with ACAO in October 2020 and January 2021; and the conduct of virtual meetings of all MIIDANPIRG Sub-Groups during the last quarter of 2020. The meeting recalled also that the ICAO MID Office developed and circulated a Questionnaire on 17 December 2020 to acquire States' inputs regarding the status of implementation and/or plans for each ASBU Thread/Element. All inputs received (from States, Sub-Groups, etc) have been consolidated by the Secretariat and presented to the second MID ASBU Webinar (19-20 January 2021). The main outcome of the Webinar was the revised version of the MID Air Navigation Strategy (Doc 002), which was reviewed and endorsed by MIDANPIRG/18.

5.2.12 The meeting noted with appreciation that the revised version of the Strategy included for the first time, an initial list of Key Performance Indicators (KPIs) to be used for the monitoring of the air navigation system performance. The meeting agreed that for the MID Air Navigation Report – 2021, the month of June and July 2021 will be used for the collection of required data for measuring the selected KPIs, as shown in **Appendix 5.2C**.

5.2.13 Based on the above, the meeting agreed to the following MIDANPIRG Conclusions:

MIDANPIRG CONCLUSION 18/11: ANS PERFORMANCE MONITORING

That, in order to optimize allocation and use of resources in the modernization of the air navigation system, States:

a) be urged to:

i. embrace a performance based approach in line with the 6th Edition of the Global Air Navigation Plan and the six-step performance management process, as described in the Manual on Global Performance of the Air Navigation System (Doc 9883);

*ii. follow-up a phased approach in the performance monitoring of their air navigation system using as an initial phase the list of KPIs at **Appendix 5.2C**; and*

iii. provide ICAO with the results of the KPIs monitoring for the agreed period, as part of the data necessary for the development of the Annual Air Navigation Report, starting with the Report for 2021.

b) be encouraged to start as soon as possible, on an experimental basis, to establish the necessary processes, procedures and systems for the collection of necessary data to measure the selected KPIs.

MIDANPIRG CONCLUSION 18/12: REVISED MID AIR NAVIGATION STRATEGY

That, the Revised MID Region Air Navigation Strategy (ICAO MID Doc 002) is endorsed and be published on the ICAO MID Office website.

5.2.14 The MID Region Air Navigation Strategy (MID Doc 002) is available at: *https://www.icao.int/MID/MIDANPIRG/Documents/eDocuments/MID%20Doc%20002%20-%20MID%20Air%20Navigation%20Strategy%20-%20Feb%202021.pdf*

Realization of FF-ICE Concept – 4D Trajectory Model

5.2.15 The subject was addressed in WP/44 presented by UAE. The meeting was apprised of the ongoing implementation initiatives by UAE in the realization of FF-ICE concept, as entailed in the ASBU blocks. This initiative targets B3–FICE - Improved Operational Performance through the introduction of Full FF-ICE Data for all the relevant flights systematically shared between the air and ground systems using SWIM infrastructure in support of collaborative ATM and Trajectory Based Operations.

5.2.16 The meeting agreed that ICAO and States should work collaboratively to develop an effective FF-ICE Model suitable for the MID Region; and invited UAE to present a Working Paper to the ATM SG, which includes a Plan for the implementation of the FICE Thread/Elements (Blocks 2 and 3) in support of the 4D Trajectory.

Amendments to the MID eANP

5.2.17 The subject was addressed in WP/23 presented by the Secretariat. The meeting was apprised of the proposals for amendment under process/development.

5.2.18 The MID eANP Volume I, II and III are available on the ICAO MID website: (http://www.icao.int/MID/Pages/MIDeANP.aspx), and the ICAO eANPs web-based platform is accessible through the ANP application under SPACE/iSTARS: (https://portal.icao.int/space/anp/Pages/newanp.aspx#).

Volume I: FIR Boundary Descriptions

5.2.19 With respect to FIR Boundary Descriptions, the meeting recalled that the MID eANP was published without the FIRs/UIRs boundary coordinates (Tables ATM I-1 MID Region Flight Information Regions (FIRs)/ Upper Information Regions (UIRs) and SAR I-1 MID Region Search and Rescue Regions (SRRs)). The publication of the FIR Boundary coordinates/descriptions necessitates bi-lateral/multi-lateral agreements between concerned States.

5.2.20 The meeting recalled that MIDANPIRG/17 recommended the use of the Guidelines at **Appendix 5.2D** for the publication of the FIR boundary points, in the States' AIPs.

5.2.21 The meeting encouraged States to discuss/agree bi-laterally/multi-laterally with neighboring State(s) on the coordinates of the FIR boundary points and provide the ICAO MID Office with their updates and comments, as soon as possible.

5.2.22 The meeting agreed to proceed with a step-by-step approach in populating the Tables ATM I-1 and SAR I-1, through appropriate Proposals for Amendment to the MID ANP Vol I, starting with the FIRs/UIRs and SRRs whose description do not raise any concern or differences/inconsistencies between neighbouring States.

Volume II

Table ATM II-MID-1: MID Region ATS Route Network:

5.2.23 The meeting noted that a comprehensive review of the Table ATM II-MID-1: MID Region ATS Route Network is ongoing for the consolidation of a revised version, considering the

numerous changes to the ATS route network in the Region, including, inter-alia, the impact of COVID-19 crisis, the projects of airspace re-organization in some States and the agreement reached during the GCC 2021 Summit on 5 January 2021. In this respect, the meeting noted with satisfaction the lifting of the restrictions imposed on the Qatari registered aircraft since June 2017. The meeting noted also that the ICAO MID Office received requests from Bahrain, Egypt, Qatar and UAE for the inclusion of some ATS routes in the MID ANP Vol II, including some of the contingency routes.

5.2.24 The meeting recalled also that MIDANPIRG/17, through Conclusion 17/18, agreed that the MID Route Development Working Group (MID RDWG) be used as the main platform to facilitate bilateral and multilateral coordination related to the improvement of the ATS Route Network and airspace management in the MID Region.

5.2.25 Based on the above the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/13: PROPOSAL FOR AMENDMENT TO THE MID eANP VOLUME II, TABLE ATM II-MID-I: MID REGION ATS ROUTE NETWORK

That,

*a) States and airspace users provide the ICAO MID Office with their inputs to the Table ATM II-MID-1 before **30 April 2021**; and*

*b) The ICAO MID Office, carry out necessary coordination to consolidate and process a proposal for amendment to the MID ANP Volume II, by **1 June 2021**.*

TABLE CNS II-1 - AERONAUTICAL FIXED TELECOMMUNICATIONS NETWORK (AFTN) PLAN

5.2.26 The meeting noted that, as a follow-up action to the MIDANPIRG Conclusion 17/28, the CNS Table II-1 was updated to mandate the AMHS implementation in the MID Region as at **Appendix 5.2E.**

5.2.27 The meeting recalled that MIDANPIRG/17, through Conclusion 17/27, agreed to change Khartoum COM Centre to be Main COM Centre in the MID Region (new entry/exit point with AFI Region). Therefore, the CNS Table II-2 was updated as at **Appendix 5.2F.**

5.2.28 The MIDANPIRG/17 meeting through Conclusion 17/34 agreed to amend the CNS Specific Regional Requirements in Vol II as at **Appendix 5.2G**, to mandate that all Mode S radars in the MID Region accommodate the SI/II code operation.

5.2.29 Considering the above, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/14: PROPOSAL FOR AMENDMENT TO THE MID ANP VOLUME II, PART III - CNS

*That, the ICAO MID Office, process a proposal for amendment to the MID ANP Volume II, Part III – CNS to amend the CNS Table II-1, Table II-2 and CNS Specific Regional Requirements, as at **Appendices 5.2E, 5.2F and 5.2G**, respectively.*

Volume III

5.2.30 The meeting noted that taking into consideration the changes brought by the ICAO Global Air Navigation Plan (GANP) 2019 (sixth edition) and the revised version of the MID Air Navigation Strategy (MID Doc 002), the MID eANP Volume III has to be aligned and amended accordingly.

5.2.31 The meeting reviewed and updated the MID eANP Volume III as at: https://www.icao.int/MID/Documents/eANP/MID%20eANP%20VOL%20III.pdf and agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/15: AMENDMENT TO THE MID eANP VOLUME III

That, the MID eANP Volume III be amended as at https://www.icao.int/MID/Documents/eANP/MID%20eANP%20VOL%20III.pdf .

5.2.32 The meeting noted also that PART 0 – Introduction and PART I - General Planning Aspects (GEN) of the Vol III, have not been updated since the approval of the new eANP Template by the Council in 2014. The meeting recalled that in accordance with the Procedure for the Amendment of Regional Air Navigation Plans (Approved by Council on 18 June 2014), contained in Appendix A to the Part 0 of Vol I (para. 2.4), the amendment process of Volume III is under the responsibility of the relevant Planning and Implementation Regional Group (PIRG). The Parts 0 (Introduction) and I (General Planning Aspects) of Volume III are harmonized for all regions and their amendment should be made following interregional coordination. Accordingly, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/16: AMENDMENT OF THE eANP VOLUME III PART 0 AND PART I

That, the ICAO MID Office, carry out necessary coordination with ICAO HQ and other Regional Offices to amend the Regional Air Navigation Plans, Vol III, Part 0 and Part I to keep pace with the latest developments, including the alignment with the GANP 6th Edition.

Proposal for Amendment (PfA) of the ICAO MID ANP – Volume I (Serial No: MIDA ANP-I 20/01 – ATM/SAR), originated by Qatar to the MID eANP

5.2.33 The subject was addressed in WP/27, WP/48 and WP/49 presented by the Secretariat, Bahrain and Qatar, respectively.

5.2.34 The meeting recalled that in accordance with the "Procedure for the Amendment of Regional Air Navigation Plans", approved by ICAO Council on 18 June 2014, if any objection to a proposal is raised, and if the objection remains after further consultation, the matter will be documented for discussion by the respective planning and implementation regional group (PIRG) and, ultimately for formal consideration by the Air Navigation Commission, if it remains unresolved. If the Commission concludes that the amendment is acceptable in its original or other form, it will present appropriate recommendations to the Council.

5.2.35 The meeting noted that on 12 January 2020, a proposal for the amendment of the Air Navigation Plan — Middle East Region (Doc 9708, Volume I), concerning the establishment of a Doha flight information region (FIR) and Doha search and rescue region (SRR) (Serial No. MID ANP-I 20/01 – ATM/SAR), was circulated to States and international organizations for comments, in accordance with established procedures. Objections were received from Bahrain, Egypt, Saudi Arabia, United Arab Emirates (UAE) and Yemen. After further consultations, the objections by the mentioned States remained.

5.2.36 The meeting was apprised of the responses received from States and international organizations.

5.2.37 Bahrain reconfirmed its objection to the proposal originated by Qatar as per the technical argument submitted to ICAO on 10 February 2020 and as highlighted in WP/48 and its

attachments and stated the following: "*the proposal for amendment of the Air Navigation Plan Volume I, originated by Qatar, lacks factual details that would necessitate the amendment of the plan. The proposal does not indicate facts that would prove any shortcomings and difficulties with the current FIR arrangement that would support the argument of the need to amend the Air Navigation Plan. The current FIR structure along with the existing technical and operational arrangements that are agreed on by States in the Region and endorsed by ICAO, proved to be functional, safe, efficient and cost effective. Bahrain was able to consistently provide highly commendable air traffic services in close cooperation with adjacent States, including Qatar in a highly dense airspace over the Gulf for more than half a century. Qatar proposal also calls for a significant change to an agreed operational arrangement, which would, if implemented, lead to serious safety consequences, increase coordination and substantially defeats the need to provide optimum economic operations to the airspace users*". Bahrain requested to submit the contents of their working paper and its attachments to the Air Navigation Commission (ANC) for formal consideration.

5.2.38 Qatar reiterated that the aim of the proposal was to enhance safety and to improve efficiency and economy of traffic. The proposal had specifically been prepared to address current endemic issues in an open and constructive manner, seeking solutions which are of optimum benefit to the MID Region. Qatar was of the view that the current airspace structure no longer serves the best interests of the region and does not cater for medium and long-term requirements of the State of Qatar and needs to be reviewed and updated. To evade further delays, Qatar requested that the proposal be submitted for consideration by the Air Navigation Commission (ANC) and eventually to the ICAO Council.

5.2.39 Mr. Chris Dalton, the Chief, Air Airspace Management and Optimization (AMO) Section, ICAO Headquarters, underlined that no specific action would be necessary from MIDANPIRG to progress the matter to the Air Navigation Commission. Such action would be a consequence of no resolution and in accordance with the Council-approved Procedures for the Amendment of Regional Air Navigation Plans. He also clarified that the rationale provided by the originating and objecting States would be part of the resultant Secretariat working paper to the ANC.

5.2.40 Based on the foregoing and taking into consideration that the objections raised by Bahrain, Egypt, Saudi Arabia, UAE and Yemen remained unresolved, the meeting recognized that the matter would be considered by the ANC and eventually the ICAO Council. The exact dates would be communicated to the States concerned in due course.

Specific Air Navigation Issues

AIM

5.2.41 The subject was addressed in PPT/24 presented by the Secretariat.

Digital Datasets planning and implementation

5.2.42 The meeting noted that the AIM SG/6 reviewed the outcomes/deliverables of the Digital Datasets Implementation Ad-hoc Working Group (DDI Ad-hoc WG) and encouraged States to use the Document "Challenges, best practices and proposals for Digital Datasets".

5.2.43 In addition, the MSG/7 meeting, through Decision 7/9, revised the composition of the DDI Ad-hoc WG to ensure active participation and contribution by all WG members and tasked the DDI Ad-hoc WG to develop a detailed Regional Implementation Plan for Digital Datasets and update MID Doc 008 detailed implementation plan for digital datasets outlining technical steps of the implementation, in line with the Global developments.

5.2.44 The meeting noted that the Rapporteur of the Group, Mr. Sorin Dan. Onitiu has left GCAA UAE and new members of the DDI AD-HOC WG have been designated by UAE.

5.2.45 The meeting agreed on the new composition of the Digital Datasets Ad-hoc Working Group and agreed also that the secretariat serves as Rapporteur of the Working Group until the election of new Rapporteur during next AIM SG meeting.

5.2.46 Based on the above the meeting agreed to the following MIDANPIRG Decision to replace and supersede the MSG Decision 7/9:

MIDANPIRG DECISION 18/17: DIGITAL DATASETS IMPLEMENTATION AD-HOC WORKING GROUP (DDI-AD-HOC WG)

That, the Digital Datasets Ad-hoc Working Group (DDI Ad-hoc WG):

a) is tasked to develop a detailed Regional Implementation Plan for Digital Datasets and update the MID Doc 008, for review by the AIM SG; and

b) be composed of: Abdulla Hasan AlQadhi (Bahrain), Moataz Abdel Aziz Ahmed (Egypt), Rouhalah Salehi (Iran), Mohammad Hussien Al Anezi (Kuwait), Bassem Ali Nasser (Lebanon), Faisal Al Busaidi (Oman), Pamela Erice (Qatar), Hind A. Almohaimeed (Saudi Arabia), Maram Khaled and Syed Samiullah (UAE) ; and ICAO MID Office.

MIDAD Project

5.2.47 The meeting recalled that the MIDANPIRG/17 meeting agreed that the development of a detailed action plan for the implementation of the MIDAD Project Phase B (set-up of MIDAD Manager) should be initiated when at least 7 States complete their migration to EAD. The meeting reviewed the status of migration to EAD whereby only Jordan migrated and Iraq, Kuwait, Lebanon, Oman, Qatar and UAE have plans to migrate to EAD.

5.2.48 The meeting noted that the AIM SG/6 meeting noted the concerns related to the costs of migration to the EAD and in particular the charging mechanism. Accordingly, it was agreed that the ICAO MID Office with the support of concerned States should initiate discussion with EUROCONTROL/EAD to review and reconsider the charging mechanism in order to add a lower/upper limit for charging States that are willing to migrate to EAD.

5.2.49 Based on the above, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/18: EAD CHARGING MECHANISM

That, the ICAO MID Office, with the support of concerned Sates, initiate discussions with EUROCONTROL/EAD, in order to reconsider the charging mechanism to add a lower/upper limit for charging States that are willing to migrate to EAD.

MID Region AIM Implementation Roadmap

5.2.50 The meeting reviewed and endorsed the MID Region AIM Implementation Roadmap as updated by the AIM SG/6 meeting; and encouraged States to continue their efforts in data exchange trials between their AIS units.

5.2.51 Considering the major changes of the MID Region AIM Implementation Roadmap, the meeting urged States to review and update their National AIM Implementation Roadmap, using the Template specially designed for this purpose.

5.2.52 In the light of the foregoing, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/19: MID REGION AIM IMPLEMENTATION ROADMAP

That,

a) the MID Region AIM Implementation Roadmap be updated, as ***at Appendix 5.2H****; and*

b) States be urged to provide the ICAO MID Office with their updated National AIM Implementation Roadmap, using the Template at ***Appendix 5.2I****.*

Air Navigation Deficiency Related to Non-implementation of TOD Area 2A

5.2.53 The meeting recalled that TOD "area 2a/take-off flight path area/OLS" is required by Annex 15 ("Shall" provision). Accordingly, it was agreed to add a deficiency related to non-provision of TOD area 2a to the list of deficiencies.

5.2.54 In view of the above, the meeting agreed to the following MIDANPIRG Conclusion

MIDANPIRG CONCLUSION 18/20: AIR NAVIGATION DEFICIENCY RELATED TO NON-IMPLEMENTATION OF TOD AREA 2A/TOFP AND OLS

That, States that have not yet provided Terrain and Obstacle Data (TOD) for area 2a, the take-off flight path area and the area bounded by the lateral extent of the aerodrome obstacle limitation surfaces (OLS) at International Aerodromes, be included in the List of Air Navigation Deficiencies.

NOTAM issues/proliferation

5.2.55 The meeting recognized that many NOTAMs issued at global and regional levels are not fully compliant with Annex 15 SARPs; and underscored the serious safety concern that the NOTAM quality poses to the users and aviation safety. The issue of "old" NOTAM was particularly highlighted. In this respect, the meeting noted with concern that, using the ICAO NOTAMeter tool, the current status of NOTAM in MID Region indicates that out of the 1121 valid NOTAMs, 105 are old NOTAMs (older than 3 months but less than 1year old), and 150 are very old NOTAMs (older than one year) representing 22.8% of the total number of valid NOTAMs.

5.2.56 In this respect, the meeting was apprised of the ICAO Global Campaign on NOTAM Improvement to address this issue, starting by a Global kick-off Webinar on 8 April 2021 followed by bi-monthly progress meetings until Dec 2021 and a series of awareness Webinars that will be organized at Regional level. More detailed information on the campaign is provided on the ICAO website: https://www.icao.int/airnavigation/information-management/Pages/GlobalNOTAMcampaign.aspx

5.2.57 The meeting noted that the NOTAMeter is a web-based analysis tool developed by ICAO to help identify "old" NOTAMs, i.e. those that are older than three months; it is available for public use at: https://www.icao.int/airnavigation/information-management/Pages/NOTAMeter.aspx. In this respect, some States raised concern regarding some functionalities of the MOTAMeter used to assess the NOTAMs quality and requested ICAO to improve the tool in order to allow for a proper and wide use of the tool by States. Dr. Alexander Pufahl, AIM Technical Officer from ICAO HQ clarified that the initial prototype of the NOTAMeter served as a research tool to analyse NOTAM quality

problems. The tool was subsequently improved to address the issue of "old" NOTAM only. He reiterated that the focus in the first phase of the global campaign will be on the "old" NOTAM. Later phases, however, may address additional quality issues (compliance with other Annex 15 SARPs related to NOTAMs). Therefore, the meeting urged States to reduce the large number of old NOTAM and coordinate with the ICAO MID Office for any required assistance. States were also strongly encouraged to actively participate in the ICAO global campaign's "kick-off and progress" webinars aimed at raising awareness to improve the quality of NOTAM.

5.2.58 On the same vein, the meeting noted with concern that the level of implementation of Quality Management System (QMS) for the Aeronautical Information Services (AIS) in the MID Region is still far below expectation.

5.2.59 Based on all the above, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/21: AIM WEBINARS

That, Webinars on the NOTAM proliferation and needs for improvement, as well as on the AIM/QMS Functions Systems and Processes be organized in 2021.

Performance Based Navigation (PBN) Implementation

5.2.60 The subject was addressed in PPT/25 presented by the Secretariat.

RNAV to RNP Chart Naming

5.2.61 The meeting recalled that the Amendment 6 to the Procedures for Air Navigation Services — Aircraft Operations (PANS-OPS, DOC 8168) introduced a change to the approach charts by introducing the "PBN Requirements Box" and a change in chart identifications for Performance-Based Navigation (PBN) approaches (transition from RNAV to RNP approach chart identification.

5.2.62 The meeting was apprised of the progress achieved in the implementation of PBN approach chart identification transition, as follows:

- 4 States have already completed the implementation of the RNAV to RNP Chart naming convention;
- 4 States have started to implement the new chart identification; and
- 7 States have not yet begun the transition from RNAV to RNP approach chart identification.

5.2.63 In view of the above, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/22: ACTION PLAN FOR THE IMPLEMENTATION OF RNAV TO RNP CHART NAMING CONVENTION

That, States, that have not yet done so, be urged to provide the ICAO MID Office with their Action Plan for the implementation of RNAV to RNP Chart naming convention, including the status/plans of implementation by ***September 2021****.*

Status of PBN Implementation in the MID Region

5.2.64 The meeting was apprised of the status of PBN implementation in the MID Region regarding in particular the provisions of ICAO Assembly Resolution A37-11, related to the implementation of approach procedures with vertical guidance (APV) for all instrument runway ends

by 2016. It was noted with concern that the level of implementation of APV procedures was still far below target. However, with regard to the implementation of PBN SIDs and STARs, the meeting noted that, although the average level of implementation in the MID Region was above the global implementation status as shown in the **Table** below, PBN SIDs and STARs should be implemented at all runway ends of international aerodromes listed in the MID Air Navigation Plan:

Dec 2020	PBN Approach	VNAV	LNAV	PBN SID	PBN STAR
Global (%)	76	59.4	71.4	49.4	44.8
MID (%)	72.1%	46.1	71.5	55.2	55.2

5.2.65 In connection with the above, the meeting agreed to the following MIDANPIRG Conclusion

MIDANPIRG CONCLUSION 18/23: PBN SIDS AND STARS IMPLEMENTATION

That, PBN SIDs and STARs be implemented at all runway ends of international aerodromes listed in the MID Air Navigation Plan as per the agreed targets in the MID Region Air Navigation Strategy (APTA Thread).

5.2.66 The meeting noted with satisfaction the improvement in the level of implementation of CDO and CCO in the Region. In this respect, it was highlighted that 71% of the international airports where CDO has been identified as a priority for implementation in the MID Region Air Navigation Strategy have implemented CDO and similarly for CCO, the level of implementation increased to 67%.

5.2.67 The meeting urged States to provide the ICAO MID Office with their updated PBN Implementation Plans on an annual basis.

AGA/AOP

5.2.68 The subject was addressed in the PPT/12 presented by the Secretariat. The meeting reviewed the outcome of the Second Meeting of the Aerodrome and Safety Planning and Implementation Group (ASPIG/2) related to the following topics:

Basic Building Blocks - Airport Operations Area (BBB-AOP)

5.2.69 The meeting recalled that, to set a baseline for the system envisioned in the GANP and to ensure a robust foundation for the global air navigation system, an effective process should be established to verify, pursuant to Article 37 of the Chicago Convention, that the essential air navigation services identified in the BBB framework are provided.

5.2.70 The meeting noted that intra-collaboration within the MID Region is essential for the foundation of a robust air navigation system for each State. Therefore, the meeting encouraged States excelling in a particular Airport Design and Operations sub-areas to provide required assistance for other State(s), seeking support to implement the essential air navigation services that shall be provided for international civil aviation. Accordingly, the meeting endorsed the following Conclusion:

MIDANPIRG CONCLUSION 18/24: STATES NEEDS FOR THE BBB-AOP IMPLEMENTATION

That, in order to support the implementation of the BBB for Airport Operations and prioritize the necessary technical assistance in line with the MID Region NCLB Strategy:

*a) States requiring assistance are urged to provide the ICAO MID Office, by **March 2021**, with their Needs for the BBB-AOP Implementation using the Table at **Appendix 5.2J**; and*

b) States and stakeholders having the required experience and expertise are encouraged to volunteer to joint efforts with ICAO for the provision of necessary technical assistance.

Airport Master Plan

5.2.71 The meeting noted that the lack of strategic planning can lead to the development of objectives that fail to consider how airport projects contribute to the longer-term sustainable development strategy. The meeting highlighted that without a coherent strategy, Airports may not address basic functional requirements and intrinsic needs for the future.

5.2.72 The meeting recalled that States should ensure that architectural and infrastructure-related requirements for the optimum implementation of international civil aviation security measures shall be integrated into the design and construction of new facilities and alterations to existing facilities at an aerodrome.

5.2.73 Based on the above, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/25: AIRPORT PLANNING SEMINAR

That, ICAO organize an Airport Planning Seminar in 2022 and States are encouraged to participate actively in this event.

ASBU Operational Threads: SURF and ACDM

Surface Operations (SURF)

5.2.74 The meeting noted that, in order to improve safety and efficiency during ground operations by providing proper indications to pilots and vehicle drivers, the guiding and routing services should be delivered using visual aids and signals on a platform; and all necessary information should be managed by the controller to provide them to the pilots and vehicle drivers in order to taxi and avoid potential incursion on the runway.

5.2.75 The meeting reiterated that the surveillance service of A-SMGCS provides airport traffic situational awareness through the position, identification and tracking of aircraft and vehicle suitably equipped on the aerodrome surface. The meeting highlighted that the information should be presented on the controller and airport operator display independent of visibility conditions and controller line of sight.

5.2.76 It was highlighted that the detection by the ATCO of potentially unsafe situations with regard to runway operations can be provided with a short term conflicting alerting tool (A-SMGCS initial alerting service) that monitors movements on or near the runway and detects conflicts between an aircraft and another vehicle as well as runway incursion by intruders.

5.2.77 The meeting noted that States should ensure the proper implementation of the A-SMGCS on Aerodromes as part of the ASBU Thread/Elements (Block 0 and 1) according to the MID Region Air Navigation Strategy, including the applicability areas. Consequently, the meeting agreed that there is a need to raise awareness on Surface operations concept through capacity building initiatives.

5.2.78 Based on the above, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/26: A-SMGCS IMPLEMENTATION SEMINAR

That,

a) ICAO organize an A-SMGCS Implementation Seminar/Workshop in 2021-2022; and

b) States are encouraged to participate actively in this event.

Airport Collaborative Decision Making (ACDM)

5.2.79 The meeting raised concern about the slow progress in the implementation of the ASBU Block 0 ACDM Module; and noted that no completed response was received from the MID States as a reply to the State Letter Ref.: AN 5/23-19/072, referring to the MSG Conclusion 6/6 - Survey on ACDM Implementation.

5.2.80 The meeting noted that there is a need to nominate States' ACDM implementation focal points and establish a MID Region ACDM Implementation Plan as at **Appendix 5.2K** to effectively monitor the proper ACDM Implementation in the MID Region. Accordingly, the meeting agreed to the following Conclusion in order to replace and supersede the above-mentioned MSG Conclusion 6/6:

MIDANPIRG CONCLUSION 18/27: MID REGION ACDM IMPLEMENTATION PLAN

*That, by **March 2021**, concerned States (according to the applicability area included in the MID Region Air Navigation Strategy) be urged to:*

a) provide the ICAO MID Office with the contact details of their designated National ACDM Implementation Focal Points; and

*b) populate the Questionnaire on ACDM Implementation Plan, using the template at **Appendix 5.2K.***

ATM

Air Traffic Flow Management (ATFM)

5.2.81 The subject was addressed in PPT/28 presented by the Secretariat and the ATFM TF Chairman.

5.2.82 The meeting reviewed and endorsed the MID Region ATFM CONOPS version 1.0. The meeting commended the efforts made by the ATFM Task Force Chairperson and members, as well as the ICAO Secretariat and all members of the ATFM Core Team, for the development of the MID Region ATFM CONOPS. Accordingly, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/28: MID REGION ATFM CONOPS

That, the MID Region ATFM CONOPS V1.0 is endorsed and be published as MID Doc 014 on the ICAO MID website.

5.2.83 The meeting reviewed and endorsed the ATM Operational Data Exchange process at **Appendix 5.2L**, which was developed by the ATFM TF and the secretariat based on ICAO ATM/CDM data exchange process. Accordingly, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/29: ATM OPERATIONAL DATA EXCHANGE

That, in order to ensure better coordination between ANSPs and improve ATS planning:

*a) the MID ATM Operational Data Exchange process at **Appendix 5.2L**, is endorsed.*

b) Airspace users are invited to share with the ICAO MID Office the data related to their "Intention To Operate (ITO)" on monthly basis, for posting on the ICAO MID Office Secure Portal (Group "RO-MIDITO");

c) States be urged to nominate Focal Points/Coordinators for ATM data exchange; in order to be granted access to the ITO data available on ICAO MID secure portal;

d) ICAO MID Office to organize periodic coordination meetings for ANSPs to exchange ATM operational data; and

e) States ensure that the ITO and ATM Operational data are used solely for airspace management and ATC planning purposes during the recovery phase, and should not be shared outside the ATM community as it contains operational and financial sensitive data.

5.2.84 In connection with the above, the meeting reviewed and updated the "ATFM Action Plan", as at **Appendix 5.2M**.

5.2.85 The meeting urged States and all stakeholders to actively participate in the coordination meetings and to provide necessary operational data as required in the Conclusion above.

5.2.86 The meeting noted that the ATFM TF/5 meeting will be held virtually from 25 to 27 May 2021 and encouraged all States and stakeholders to participate actively in this meeting, in order to support the development of the ATFM Regional Framework and Common Operating Procedures.

FIFA World Cup 2022 (FWC 2022)

5.2.87 The subject was addressed in PPT/29 presented by the Secretariat and FWC 2022 TF Chairman.

5.2.88 The meeting reviewed and updated the "FWC 2022 Action Plan", as at **Appendix 5.2N**. The meeting noted the ongoing work by Qatar related to the development of the FWC 2022 Roadmap and Operations Plan.

5.2.89 With reference to the MIDANPIRG Conclusion 17/24 related to the MID Region RVSM Airspace safety assessment during the period of the FWC 2022 (November – December 2022), the meeting noted that the subject has been followed up by the MIDRMA Board, the FWC 2022 TF and the ATM SG; and it was found that, the MIDRMA would be able to assess the technical risk, while the operational risk would need LHD reports, which could not be available beforehand. Therefore, it would not be possible to meet the mandate given by MIDANPIRG, through Conclusion 17/24, to identify the peak periods, hotspots, bottlenecks, etc.

5.2.90 The meeting was informed that, as a follow-up action and in order to find a way forward to meet the mandate given by MIDANPIRG, the ICAO MID Office organized coordination meetings with the FWC2022 TF Chairman, the MIDRMA and the MIDRAS Developer. It was agreed that it is possible to use artificial intelligence and the available historical data related to LHD, forecasted traffic and the ATS Route Network Structure to provide probabilistic/predicted LHD reports, which will enable the MIDRMA top use the current version of the MIDRAS software to conduct the required

safety assessment, as per MIDANPIRG Conclusion 17/24. The meeting reviewed the project proposal by the MIDRAS Developer (Cost # 25,600 USD). No consensus was reached to go ahead with the proposal.

5.2.91 Based on a proposal by the MIDRMA, the meeting agreed that the MID Region RVSM Airspace safety assessment related to the FWC 2022, be developed based on a worst case scenario (using all available historical LHD reports) for the assessment of the risk of collision due to operational errors.

5.2.92 Based on all the above, the meeting agreed to the following MIDANPIRG Conclusion to replace and supersede the MIDANPIRG Conclusion 17/24:

MIDANPIRG CONCLUSION 18/30: MID REGION RVSM AIRSPACE SAFETY ASSESSMENT RELATED TO THE FWC 2022

That, the MIDRMA conduct a MID Region RVSM airspace safety assessment, to ensure that the overall risk is meeting the ICAO TLS; and identify the peak periods, hotspots, bottlenecks, etc., based on a worst case scenario, using the forecasted traffic during the FWC 2022 period and all historical LHD reports available within the MIDRMA database.

5.2.93 The meeting noted that the FWC 2022 TF/5 meeting will be held virtually from 23 to 24 March 2021 and encouraged all States and stakeholders to participate actively in this meeting. The meeting underlined that the FWC 2022 Roadmap and Operational Plan should be presented to the upcoming FWC 2022 TF/5 for review and update, as deemed necessary.

Civil military cooperation and FUA

5.2.94 The subject was addressed in PPT/30 presented by the Secretariat. The meeting noted that, as a follow-up to the MIDANPIRG Decision 17/21 and based on the outcome of the ATM SG/5 and SG/6 meetings (Draft Decisions 5/3 and 6/1), the MID CMC/FUA Action Group composed of experts from Bahrain, Egypt, Iraq Jordan, Oman, Qatar, Saudi Arabia, UAE and the ICAO MID Secretariat, was established to draft the guidance material related to Civil Military Cooperation and implementation of FUA Concept, including State aircraft operations under Due Regard in particular over the high seas.

5.2.95 The meeting was apprised of the publication of the first edition of ICAO Doc 10088: "Manual on Civil-Military Cooperation in Air Traffic Management" in January 2021, which covers many topics related to CMC, State aircraft operation, FUA and airspace organization and management.

5.2.96 Based on the above, the meeting agreed to task the Action Group with the review of the newly published ICAO Doc 10088; to ensure that the regional requirements are covered; and agreed to the following MIDANPIRG Decision to replace and supersede the MIDANPIRG Decision 17/21:

MIDANPIRG DECISION 18/31: MID CMC/FUA ACTION GROUP

That, the MID CMC/FUA Action Group:

a) review the newly published ICAO Doc 10088, in order ensure that the regional requirements related to Civil Military Cooperation and implementation of FUA Concept, including State aircraft operations under Due Regard in particular over the high seas, are covered; and

*b) if necessary, draft, by **30 September 2021,** complementary guidance.*

Due Regard Operations, awareness and associated regulations

5.2.97 The subject was addressed in WP/46 presented by UAE. The meeting noted that UAE witnesses a high concentration of aircraft operating under due regard in very busy and complex sequencing sectors for numerous major international airports. More recently, it has been observed that the proportion of these flights being operated by UAS has picked up considerably, adding a layer of complexity of separating civilian traffic due to the increased separation requirements and non-standard nature and operation of due regard traffic. The meeting further noted that there are no clear regulations that apply to the operation of this traffic over international waters.

5.2.98 The meeting encouraged States to further improve the Civil/Military coordination and collaboration to raise awareness related to the challenges associated with the due regard operations, in particular by the UAS.

MID Region High Level Airspace Concept (MID Doc 004)

5.2.99 The subject was addressed in PPT/30 presented by the Secretariat. The meeting recalled the objective of "ICAO Doc 004: High level Airspace Concept", that is to provide the outline and intended framework of operations in the MID Region airspace. The meeting referred to MIDANPIRG Decision 17/25 related to the amendment of Doc 004 by the ATM SG, and agreed to the following MIDANPIRG Decision emanating from the ATM SG/6:

MIDANPIRG DECISION 18/32: HIGH LEVEL AIRSPACE CONCEPT ACTION GROUP (HLAC AG)

*That, the High Level Airspace Concept Action Group (HLAC AG), composed of the ATM Focal Points from Bahrain, Egypt, Jordan, Oman, Saudi Arabia, UAE, IATA and ICAO MID, be established to review and prepare a revised version of the MID Region High Level Airspace Concept (MID Doc 004), by **31 August 2021**, for presentation to the ATM SG/7meeting and endorsement by the MIDANPIRG/19 meeting.*

Flexible Use of Air Traffic Control Simulation During Period of Abnormal Traffic Levels

5.2.100 The subject was addressed in WP/45 presented by UAE, which highlights the advantages of using ATC simulation to provide flexibility regarding the conduct of both training and competency assessments, when required due to inadequate traffic, staffing or other unforeseen events that limit the live training and assessments of ATC proficiency.

5.2.101 The meeting noted that with the traffic levels plummeting due to the COVID-19, Air Traffic Services Providers were forced to adjust their overall staffing requirements, adapt staff rostering to comply with State mandated lockdown restrictions and accommodate difficulties with staff availability for rostered duties. In addition, Air Navigation Service regulators have promulgated amended requirements with regard to Air Traffic Control currency, Fatigue Risk Management provisions and notably, the use of Air Traffic Control Synthetic Training Devices (simulators). Simulation has been used successfully to maintain active controller skills (mitigate skills fade), conduct competency examination for renewal and issue of Certificate of Competency (CoC) and to complete the Minimum Experience requirement for specific ratings.

5.2.102 The meeting was apprised of UAE's experience in the use of simulators for their ATCOs for refresher courses, competency checks and examination/assessment purposes. Furthermore, it was highlighted that ICAO Annex 1 is lacking provisions related to the flexible use of ATC simulators during pandemics, crisis and similar events.

5.2.103 In connection with the above, the meeting was informed that a new Personnel Training and Licensing Panel (PTLP) has been established by the Air Navigation Commission. It was highlighted that the subject/challenge addressed above, might be considered by the PTLP. Therefore, the meeting agreed that the ICAO MID Office collect inputs from States related to their experience on the use of ATC Simulators for refresher courses, competency checks and examination/assessment purposes, to continuously ensure the level of proficiency during extended abnormal traffic periods.

5.2.104 Based on the above, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/33: USE OF ATC SIMULATORS

That,

a) States are invited to provide the ICAO MID Office ***by 30 April 2021*** *with their practices and experience on the use of ATC Simulators for* refresher courses, competency checks *and examination/assessment purposes to continuously ensure the level of proficiency during extended abnormal traffic periods (pandemics, crisis and similar events); and*

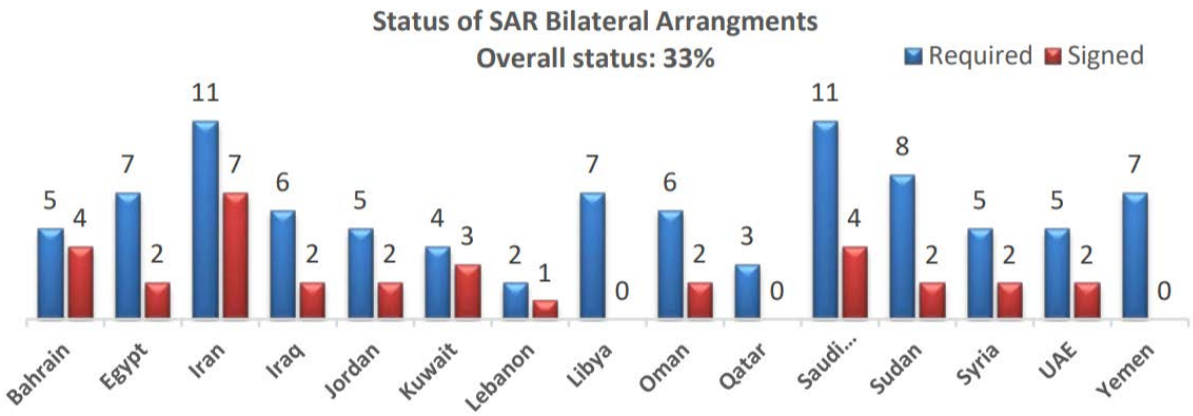
b) ICAO MID Office to consolidate the inputs from States to be shared with States and ICAO HQ, for appropriate action.

Search and Rescue SAR

5.2.105 The subject was addressed in PPT/31 presented by the Secretariat. The meeting noted that the main USOAP-CMA findings related to SAR in the MID Region are related to the lack of:

- effective SAR oversight activities;
- English language proficiency for RCC radio operators;
- appropriate training programmes/plans of SAR experts;
- signature of SAR agreements;
- plans of operations for the conduct of SAR operations and SAR exercises;
- provision of required SAR services; and
- non-compliance with the carriage of Emergency Locator Transmitter (ELT) requirements.

5.2.106 The meeting reviewed and updated the status of SAR bi-lateral **as at Appendix 5.2O,** which is also reflected in the Graph below:



5.2.107 Considering that the ASBU GADS Element B1/2 has been identified as Priority 1 for the MID Region, the meeting urged States to provide the MID Office, as soon as possible, with the contact details of their GADSS Point of Contact (PoC).

CNS

MID AMC Operation

5.2.108 The subject was addressed in PPT/32 presented by the Secretariat. The meeting recalled that the MIDAMC Web Application was established because some of the operational functions (like routing management) were not available to the MID COM Centres. The meeting was informed that the EUR AMC decided to provide External COM users similar access like EUR users. Thus, the routing management function can be used by all AMC users globally.

5.2.109 The meeting agreed with the CNS SG/10 meeting held virtually, 1-3 December 2020, that there is no need to keep using the MIDAMC Web Application and that the EUR AMC should be used by all MID users. However, the MIDAMC team will continue carrying out coordination and operation support roles. Accordingly, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/34: MIDAMC OPERATION EFFICIENCY

That, in order to enhance the MIDAMC operation efficiency, States are encouraged to:

a) update their MIDAMC focal point(s);
*b) register MIDAMC users on the EUR AMC as external AMC operator, in coordination with the MIDAMC Team by **1 March 2021**;*
*c) note that the MIDAMC web application will be withdrawn by **1 April 2021**; and*
d) nominate SMEs to join the MIDAMC Team. A training on MIDAMC operation will be arranged for new MIDAMC members.

5.2.110 The meeting agreed on the need to organize a refresher training on the use of the AMC functions, inter-alia, using the routing management function and developing routing directory. Accordingly, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/35: AMC OPERATION WEBINAR

*That, in order to provide the MIDAMC users with the required knowledge on the use of the AMC functions and tools, a Webinar on AMC operation be organized in **March 2021**, by the ICAO MID Office and the MIDAMC Team.*

5.2.111 The meeting recalled that the implementation of the ATS Extended Services in the MID Region is a pre-requisite to implement XML based messages. Furthermore, the meeting noted the progress made toward the implementation of the MID ROC plan as at **Appendix 5.2P.**

5.2.112 The meeting recalled that MIDANPIRG/17, through Conclusion 17/29, tasked the MIDAMC to update the AFTN/CIDIN/AMHS Routing Directory. The meeting noted that the MIDAMC STG/6 virtual meeting (30 November 2020) reviewed and updated the Regional Routing Directory (V 5.0, 2011). Accordingly, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/36: AFTN/CIDIN/AMHS ROUTING DIRECTORY

*That, the AFTN/CIDIN/AMHS Routing Directory in the MID Region, Edition February-2021 at **Appendix 5.2Q**, is endorsed.*

The MID IP Project

5.2.113 The meeting noted that in spite of several coordination meetings with the CRV service provider (PCCW), the running cost of the CRV Project is very high and does not meet the objective of the project in having cost-effective solution. The meeting agreed that alternative means to establish Regional IP Network should be explored, in particular through discussion with EUROCONTROL to join the European PENS project. Accordingly, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/37: ALTERNATIVE SOLUTION TO ESTABLISH MID IP NETWORK

That, the ICAO MID Office, with the support of concerned Sates, initiate discussions with EUROCONTROL, in order to explore the possibility of joining the PENS project as an alternative solution for establishing a MID IP Network.

The MIDAMC Terms of Reference

5.2.114 The meeting reviewed and updated the MIDAMC STG Terms of Reference (TORs) as at **Appendix 5.2R** to amend the working arrangement of the Study Group (allowing online meeting conduct). Accordingly, the meeting agreed to the following MIDANPIRG Decision:

MIDANPIRG DECISION 18/38: TERMS OF REFERENCE OF THE MIDAMC STG

*That, the Terms of Reference of the MIDAMC STG be updated as at **Appendix 5.2R.***

Navigation Matters

5.2.115 The subject was addressed in PPT/33 presented by the Secretariat. The meeting noted the outcome of the Navigation Aids Flight Inspection Webinar (24-25 Nov 2020) as at **Appendix 5.2S**. The meeting agreed on the need to raise awareness on Navigation Aids and procedure validation to support States in improving their capacity to conduct the flight inspection and procedure validation activities in a more effective, efficient, safe and economical manner. Accordingly, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/39: FLIGHT INSPECTION AND PROCEDURE VALIDATION SYMPOSIUM

That, a Flight Inspection and Procedure Validation Symposium be organized in 2021.

5.2.116 The meeting recalled that the first edition of the Guidance on GNSS Implementation in the MID Region (MID Doc 011) was endorsed by the MSG/6 meeting in December 2018. The CNS SG/10 meeting agreed that the plan should be updated considering the latest global developments and to be in line with the NAV Thread/Elements in the GANP 6th edition.

5.2.117 The meeting agreed to establish an Ad-Hoc Action Group to review and prepare a revised version of the Guidance on GNSS Implementation in the MID Region. Accordingly, the meeting agreed to the following MIDANPIRG Decision and Conclusion:

MIDANPIRG DECISION 18/40: GNSS GUIDANCE AD-HOC ACTION GROUP

That, the GNSS Guidance Ad-hoc Action Group be:

a) *established to review and prepare a revised version of the Guidance on GNSS Implementation in the MID Region (MID Doc 011), to be presented to MIDANPIRG/19 for review and endorsement.*

b) Composed of:

Mr. Saleh Al-Harthy (Oman, CNS SG Chairman)

Mr. Ahmed Saied (Egypt)

Mr. Khaled Eltanany (Oman)

Mr. Emad Jadallah (Saudi Arabia)

Mr. Jehad Al-Faqir (IATA)

ICAOMID Office

MIDANPIRG CONCLUSION 18/41: UPDATE OF THE GNSS IMPLEMENTATION GUIDANCE IN THE MID REGION (MID DOC 011)

That, the ICAO MID Doc 011 – GNSS Implementation Guidance in the MID Region, Edition February 2021 is endorsed and be posted on the ICAO MID Office website.

5.2.118 The meeting noted that the new element "Navigation Minimal Operating Networks" (NAVS B0/4) has been classified as priority 1 in the revised MID Region Air Navigation Strategy (MID Doc 002). This element aims to rationalize the conventional Navigational aids network through the increased deployment of the satellite based navigation system. Furthermore, the meeting agreed on the need to develop a template for Navigation Minimal Operating Networks (Nav. MON) plan in line with ICAO SARPs and Regional requirements. Accordingly, the meeting agreed to the following MIDANPIRG Decision:

MIDANPIRG DECISION 18/42: NAV MON PLAN AD-HOC ACTION GROUP

That, the NAV. MON Plan Ad-hoc Action Group be:

a) *established to develop a template for NAV MON Plan to be presented to the CNS SG/11 for further review and enhancement;*

b) *Composed of:*

Mr. Saleh Al-Harthy (Oman, CNS SG Chairman)

Mr. Ahmed Abdelwahab (Egypt)

Ms. Amena Dodin (Jordan)

Mr. Khaled Eltanany (Oman)

Mr. Khaled Al-Harby (Saudi Arabia)

Mr. Jacob Avis (UAE)

Mr. Jehad Al-Faqir (IATA)

ICAO MID Office

Review of the MID Region Surveillance Plan

5.2.119 The subject was addressed in PPT/34 presented by the Secretariat. The meeting recalled that MIDANPIRG/17, through Conclusion 17/36, endorsed the MID Region Surveillance plan (MID Doc 013).

5.2.120 The meeting reviewed and agreed to the changes proposed by the CNS SG/10 to update the timelines and content of the MID Region Surveillance Plan to be in accordance with the GANP 6th Edition. Accordingly, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/43: UPDATE OF THE MID REGION SURVEILLANCE PLAN (MID DOC 013)

That, the ICAO MID Doc 013 - MID Region Surveillance Plan, Edition February 2021 is endorsed and be posted on the ICAO MID Office website.

5.2.121 The meeting recalled that MIDANPIRG/17 agreed to monitor the surveillance capabilities in the MID Region through adding Surveillance Monitoring Matrix to the MID ANP Vol III. The meeting agreed to add ADS-B Mandate column to the matrix (effective date and reference regulation) as at **Appendix 5.2T.**

5.2.122 The meeting noted that nine (9) States populated their data (Bahrain, Egypt, Iraq, Jordan, Lebanon, Oman, Qatar, Saudi Arabia and UAE). Accordingly, the meeting urged States, that have not yet provided their data to the Surveillance Monitoring Matrix, to do so, as soon as possible

Frequency management

5.2.123 The subject was addressed in PPT/35 presented by the Secretariat. The meeting noted that ICAO circulated the Draft ICAO Position on items of interest to aviation on the agenda of WRC-23 on 26 November 2020 (State Letter Ref. E 3/5-20/103)**.** The meeting urged States to reply to the State Letter by making comments or indicating support to ICAO's position.

5.2.124 The meeting agreed on the need to support Spectrum aviation requirements, and recalled that the 38th session of ICAO General Assembly instructed ICAO to make sufficient resources available to enable increased participation in spectrum management activities. Furthermore, the meeting requested States and international organizations to make use of the ICAO Position, to the maximum extent possible, in their preparatory activities for the WRC-23 at the national and regional levels.

5.2.125 The meeting underlined that the coordination between the CAAs and TRAs is vital and agreed to organize a preparatory workshop for WRC-23 jointly with the Arab Spectrum Management Group (ASMG) and AFI Region in 2022. Accordingly, the meeting agreed to the following MIDANPIRG Conclusion:

MIDANPIRG CONCLUSION 18/44: WRC23 PREPARATORY WORKSHOP

That, a WRC23 preparatory Workshop be organised in 2022 jointly with ACAO, the Arab Spectrum Management Group (ASMG) and AFI Region.

5.2.126 In light of the MSG dissolution, the meeting endorsed the following Decision and Conclusion:

MIDANPIRG CONCLUSION 18/45: FREQUENCY COORDINATION PROCESS IN THE MID REGION

That, in order to enhance the frequency coordination process in the MID Region, States be invited to:

a) use the latest version of the FF tool in frequency coordination process;

b) provide ICAO with updated frequency list for COM VHF and NAV (with accurate information);

c) provide feedback on the FF tool;

d) nominate Frequency Management Focal Points, if not yet done so; and

e) participate actively in the frequency management workshop planned for 2021.

MIDANPIRG CONCLUSION 18/46: LONG-TERM FREQUENCY ASSIGNMENT PLAN IN THE MID REGION

That, in order to secure adequate spectrum for VHF-COM, ILS, VOR, DME and GBAS/VDB facilities and meet the operational requirements up to 2030, the Frequency Management Ad-hoc Working Group (FM WG) is tasked with the development of a rolling frequency assignment plan in coordination with concerned parties.

MET

OPMET Data Exchange – Status on Implementation of ROC and IWXXM

5.2.127 The subject was addressed in WP/36 presented by the Secretariat.

5.2.128 The meeting noted that most States have implemented the necessary OPMET exchange with Regional OPMET Centre (ROC) Jeddah for the efficient exchange of OPMET data while meeting the operators' needs in that State. A few States (Bahrain, Egypt, Iran, Kuwait) have partially completed this implementation and two States (Syria and Yemen) have not started. Those States that have not completed implementation in this regard were urged to contact ROC Jeddah and ICAO Secretariat in order to receive the information needed to achieve full implementation.

5.2.129 The meeting reiterated that AMHS implementation is necessary in Nicosia in order to exchange OPMET data in the ICAO Meteorological Information Exchange Model (IWXXM) format between the ICAO MID and EUR Regions.

5.2.130 The meeting noted that since only 3 States (Qatar, Saudi Arabia and UAE) have implemented IWXXM for the provision of the required OPMET data, the MET SG/9 meeting agreed that another IWXXM implementation Workshop should be conducted in 2021. The meeting noted with appreciation, that further to the MET SG/9, the ICAO Secretariat coordinated with potential stakeholders, which included the World Meteorological Organization; to conduct this workshop virtually from 26 to 27 May 2021. Accordingly, the meeting strongly encouraged States to actively participate in this Workshop.

5.2.131 The meeting also noted that OPMET data still needs to be produced in Traditional Alphanumeric Code (TAC) in addition to IWXXM for several years as MET Services transition to the SWIM environment.

5.2.132 The meeting noted also that, as part of the MET activities for 2021, a Space Weather Dissemination Webinar will be held from 3 to 4 March 2021 and encouraged also States to actively participate in this Webinar.

World Area Forecast System Updates

5.2.133 The subject was addressed in WP/37 presented by the Secretariat.

5.2.134 The meeting recalled that there are two World Area Forecast Centres providing World Area Forecast System (WAFS) forecasts of various weather information mainly used for flight planning. These Centres are located in London and Washington. The MID States fall under the area of

responsibility of WAFC London that hosts the Secure Aviation Data Information Service (SADIS). SADIS developments included upgrading their data delivery platform to cloud-based technology and also SADIS increased their bandwidth such that WAFS gridded data sets can be downloaded in a fraction of a second.

5.2.135 Furthermore, IWXXM data distributed internationally and received at ROC London are published on SADIS since 5 November 2020. The meeting noted that MID OPMET data in IWXXM format will become available on SADIS when Nicosia implements AMHS.

5.2.136 The meeting noted that the horizontal resolution of WAFS hazard data sets for ICING, TURBULENCE and CUMULONIMBUS was increased from 1.25 degrees to 0.25 degrees. The new turbulence field called TURBULENCE SEVERITY forecasts both clear air turbulence and orographic turbulence via Eddy Dissipation Rate (EDR). The new icing field called ICING SEVERITY gives a categorical assessment of icing as NIL, TRACE, SLIGHT, MODERATE and SEVERE. The meeting noted that an implementation delay at one (1) WAFC results in data availability approximately 6 hours after the model time which is one (1) hour later than ICAO requirements; however, this situation will be remedied on 17 March 2021.

5.2.137 Given the aforementioned, the meeting agreed to the following Conclusion:

MIDANPIRG CONCLUSION 18/47: 0.25 DEGREE WAFS HAZARD DATA

*That, the SADIS users be invited to start integrating the new 0.25 degree WAFS hazard data into their systems and software as soon as possible, but not later than **17 March 2021**.*

5.2.138 The meeting also noted that WAFS upgrades expected in November 2023 include a greater resolution of 0.25 degrees for all WAFS fields as well as greater resolution in the vertical with 1000ft levels. The temporal resolution will also increase significantly to meet operators' needs. In addition, SIGWX forecasts will be provided at 3-hourly intervals out to 2 days, which is better suited for short- and long-haul flights. The data delivery system will be adapted to a SWIM compliant web-based platform in order to manage efficiently the delivery of significantly more data as a result of higher vertical, horizontal and temporal resolutions.

5.2.139 The meeting was informed that ICAO in coordination with WMO will organize webinars on WAFS upgrades and SADIS changes during 2021 and 2022 to support MID States in the implementation of these changes.

5.2.140 Based on the above, the meeting agreed to the following Conclusion:

MIDANPIRG CONCLUSION 18/48: NOVEMBER 2023 WAFS UPGRADES

That, the SADIS users familiarize themselves with the proposed WAFS and SADIS changes planned for November 2023, and commence preliminary discussions with their technical departments about how their organization could adapt to these technological changes.

REPORT ON AGENDA ITEM 5.3: AIR NAVIGATION DEFICIENCIES

Review of Air Navigation Deficiencies

5.3.1 The subject was addressed in WP/38 presented by the Secretariat. The meeting urged States to use the MID Air Navigation Deficiency Database (MANDD) for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies, including the submission of a specific Corrective Action Plan (CAP) for each deficiency. The meeting reiterated that a deficiency would be eliminated only when a State submit a formal Letter to the ICAO MID Office containing the evidence(s) that mitigation measures have been implemented for the elimination of this deficiency.

5.3.2 The meeting noted with concern that the majority of deficiencies listed in the MANDD have no specific Corrective Action Plan (CAP). The meeting urged States to implement the provision of MIDANPIRG Conclusion 15/35 related to elimination of Air Navigation Deficiencies, in particular, the submission of a specific Corrective Action Plan (CAP) for each deficiency.

5.3.3 The meeting reviewed and updated the list of deficiencies in the AIM, AOP, ATM, CNS, SAR and MET fields as reflected in the MID Air Navigation Deficiency Database (MANDD) at: https://mandd.icao.int. The meeting noted that the total number of air navigation deficiencies recorded in MANDD is **107** deficiencies compared to **104** deficiencies in MIDANPIRG/17.

5.3.4 A quantitative analysis of the MID States' air navigation deficiencies is shown in the Tables and Graphs presented at **Appendices 5.3A** and **5.3B**.

5.3.5 The meeting highlighted the following:

- In the AOP field: the total number of AOP deficiencies is nine (9) priority "A". Seven (7) deficiencies related to aerodrome certification; one (1) related to runway physical characteristics; and one (1) related to apron lighting. The lack of implementation of aerodromes' certification represents 78% of these deficiencies.

- In the AIM field: the meeting agreed to remove the deficiency reported against Sudan related to *Lack of AIXM-based AIS Database* according to the information provided by Sudan. The total number of AIM deficiencies is fifty-two (52); forty-six (46) priority "A" and six (6) priority "B". Twenty-four (24) deficiencies related to eTOD (based on the agreement to include new deficiencies related to the non-provision of TOD for Area 2a/TOFP and OLS); six (6) related to QMS; five (5) related to AIXM; six (6) related to WAC; three (3) related to pre-flight information services; three (3) related to AIP and aeronautical charts; three (3) related to AIRAC adherence; and two (2) related to WGS-84.

- In the ATM field: based on the information provided by Iraq, the meeting agreed to remove the deficiency related to *lack of implementation of ATS route G669 segment RAF - SOLAT* reported against Iraq. Also based on the information provided by Yemen and with confirmation by the MIDRMA, the meeting agreed to remove the two deficiencies related to *the provision of required RVSM data to the MIDRMA* reported against Yemen.
  Based on the information provided by Iraq, the meeting agreed to remove the deficiency related to lack of implementation of ATS route G669 segment RAF - SOLAT reported against Iraq. Also based on the information provided by Yemen and with confirmation by the MIDRMA, the meeting agreed to remove the two deficiencies related to the provision of required RVSM data to the MIDRMA reported against Yemen.
  The total number of deficiencies is eighteen (18); eleven (11) priority "A" and

seven (7) priority "B". Nine (9) related to the uncompleted signature of contingency agreements; seven (7) related to the non-implementation of planned regional ATS Routes; and four (2) related to unsatisfactory reporting of large Height deviation (LHD) to the MIDRMA.

- In the CNS field: the total number of CNS deficiencies is five (5); two (2) priority "A" and three (3) priority "B". Three (3) deficiencies are related to ATS Direct speech circuits, one (1) related to Inter-Regional Communication link with ICAO EUR/NAT Region and one (1) for HF service.

- In the MET field: the total number of MET deficiencies is thirteen (13) priority "A" deficiencies. Six (6) related to QMS; and seven (7) related to METAR, TAF, SIGMET and WAFS. Three new deficiencies have been added: ORBM METAR and 24-hour TAF not available internationally (Iraq), SADIS FTP not available (Libya) and OYAA METAR and 30-hour TAF; OYHD, OYRN, OYSN, OYTZ METAR and 24-hour TAF not available internationally (Yemen).

- In the SAR field: the total number of deficiencies is ten (10) priority "A". Five (5) related to the lack of implementation of SAR provisions; and five (5) related to non-compliance with the carriage of Emergency Locator Transmitter (ELT) requirements.

REPORT ON AGENDA ITEM 5.4: MIDANPIRG WORKING ARRANGEMENTS AND FUTURE WORK PROGRAMME

MIDANPIRG Organization Structure, Working Arrangements and Chairmanship

5.4.1 The subject was addressed in PPT/39, WP/40 and WP/47 presented by the Secretariat and UAE.

MIDANPIRG Frequency of meetings & Organization Structure

5.4.2 The meeting was apprised of the MSG/7 outcome on the subject and in coordination with the RASG-MID, it was agreed that the MIDANPIRG and RASG-MID meetings will be organized on an annual basis concurrently in an in-person setting. However, the Groups have the flexibility to decide to organize the meetings in a virtual or hybrid setting, considering the circumstances, availability of host, resources, global and regional developments, feedback from States, progress and outcomes of the Groups, etc.

5.4.3 Based on the above, the meeting agreed to the following Decision:

MIDANPIRG DECISION 18/49: FREQUENCY OF MIDANPIRG MEETINGS

That, the MIDANPIRG meetings be organized on an annual basis concurrently with the RASG-MID in an in-person setting, unless decided otherwise (the meetings could be organized in a virtual or hybrid setting, if decided so by the Groups, considering the circumstances, availability of host, resources, global and regional developments, feedback from States and progress and outcomes of the Groups).

5.4.4 The meeting agreed also that, since MIDANPIRG will meet on an annual basis and considering that the membership/composition of MSG is identical to that of MIDANPIRG, MSG should be dissolved.

5.4.5 The meeting recalled that the MID ATM Enhancement Programme (MAEP) has been established to act as a Regional Platform to enhance Airspace and ATM management in the MID Region. The meeting recalled that it has been decided that the candidate Regional Projects be managed as standalone projects and by the relevant MIDANPIRG Sub-Group/Taskforce. Accordingly, the meeting agreed to the following Decision:

MIDANPIRG DECISION 18/50: DISSOLUTION OF THE MSG AND THE MAEP BOARD

That,

a) the MSG and MAEP Board are dissolved; and

b) the MIDANPIRG Organization Structure be updated accordingly.

Chairmanship

5.4.6 The meeting noted the status of the MIDANPIRG Chairmanship. Taking into consideration the current situation and dynamic circumstances in particular related to COVID-19 and its impact on the MIDANPIRG Work Programme, the meeting agreed to extend one additional term/meeting to the Chairperson and the First Vice-Chairperson, and to postpone the election of Chairpersons, and the First Vice-Chairperson to the next face-to-face meeting (MIDANPIRG/19).

5.4.7 With respect to the vacant position of the Second Vice-Chairperson, further to the

retirement of Mr. Nayef Al-Marshoud, Ex ATM Director, CARC, Jordan, the meeting took the opportunity to thank Mr. Al- Marshoud for his kind support in the capacity of the Second Vice-Chairperson; and elected unanimously Mr. Saleh Al-Harthy, Director of CNS, Oman CAA as the Second Vice-Chairperson of the MIDANPIRG.

5.4.8 The meeting noted UAE's proposal to amend the MIDANPIRG Procedural Handbook and include additional guidelines to ensure the election of the most suitable candidate(s) for the MIDANPIRG Chairperson positions as at **Appendix 5.4A**. Accordingly, the meeting agreed to the following Decision:

MIDANPIRG DECISION 18/51: CHAIRPERSONS' ELECTION GUIDELINES

*That, the MIDANPIRG Procedural Handbook be updated to include additional Guidelines related to the Chairperson and Vice-Chairpersons responsibilities; and the professional background and personal qualities required for the election of Chairpersons, as at **Appendix 5.4A**.*

MIDANPIRG Terms of Reference

5.4.9 The meeting recalled that the President of the Council approved new generic Terms of Reference for the PIRGs and RASGs in August 2020, in order to clarify the roles of stakeholders and promote partnership among them, harmonize the methods of work and improve regional reporting through more frequent meetings. Therefore, the meeting agreed to update the MIDANPIRG Terms of Reference as at **Appendix 5.4B** and agreed to the following Decision:

MIDANPIRG DECISION 18/52: MIDANPIRG TERMS OF REFERENCE

*That, the MIDANPIRG Terms of Reference (ToR) be amended as **at Appendix 5.4B**, in line with the PIRGs Generic ToR approved by the President of the Council on 7 Aug.2020.*

5.4.10 The meeting noted that all MIDANPIRG Sub-Groups (AIM SG/7, ATM SG/6, CNS SG/10, MET SG/9 and PBN SG/5) reviewed and updated their Terms of Reference to keep pace with the latest developments, and to amend the working arrangements to allow the conduct of virtual Sub-Group meeting. Accordingly, the meeting agreed to the following five (5) Decisions:

MIDANPIRG DECISION 18/53: TERMS OF REFERENCE OF THE AIM SG

*That, the Terms of Reference of the AIM SG be updated as at **Appendix 5.4C**.*

MIDANPIRG DECISION 18/54: TERMS OF REFERENCE OF THE ATM SG

*That, the Terms of Reference of the ATM SG be updated as at **Appendix 5.4D**.*

MIDANPIRG DECISION 18/55: TERMS OF REFERENCE OF THE CNS SG

*That, the Terms of Reference of the CNS SG be updated as at **Appendix 5.4E**.*

MIDANPIRG DECISION 18/56: TERMS OF REFERENCE OF THE MET SG

*That, the Terms of Reference of the MET SG be updated as at **Appendix 5.4F**.*

MIDANPIRG DECISION 18/57: TERMS OF REFERENCE OF THE PBN SG

*That, the Terms of Reference of the PBN SG be updated as at **Appendix 5.4G**.*

MIDANPIRG Working Arrangements

5.4.11 The meeting discussed the following issues regarding the MIDANPIRG Working arrangements:

- Conduct of Virtual (online) meeting
- Fast track/ Approval by Passing
- Delegation of authority

5.4.12 The meeting noted that the businesses are now turning towards organizing virtual conferences and online events following the norms of social distancing.

5.4.13 The meeting was apprised of the advantages and disadvantages of the virtual meetings and the development of a Guideline on the conduct of Virtual meetings. The meeting agreed that, in order to maintain meetings' efficiency and effectiveness, rules and procedure for the conduct of virtual meetings should be added to the MIDANPIRG Procedural Handbook.

5.4.14 With regard to the Fast Track/Approval by Passing procedure and the possibility to provide more authority to the MIDANPIRG Sub-Groups, the meeting recalled that no consensus could be reached in this regard.

5.4.15 Taking into consideration that numerous changes have happened, including the dissolution of the MSG and MAEP, the new MIDANPIRG TOR, frequency of meetings and working arrangements (conduct of virtual meetings), the meeting was of the view that sufficient lead-time should be provided for the evaluation of the efficiency of the new Organizational Structure and working arrangements, before considering any change. Accordingly, the meeting agreed to defer the discussion on the fast track/approval by passing procedure and delegation of authority to the MIDANPIRG Sub-Groups to a later stage, if deemed necessary.

MIDANPIRG Procedural Handbook

5.4.16 The meeting recalled that the MIDANPIRG Procedural Handbook requires a lot of amendments; and agreed that the Secretariat, in coordination with the Chairpersons of the Group develop a new Edition of the Handbook to reflect all necessary changes, including those approved by the MIDANPIRG/18 meeting. Accordingly, the meeting agreed to the following MIDANPIRG Decision:

MIDANPIRG DECISION 18/58: NEW EDITION OF THE MIDANPIRG PROCEDURAL HANDBOOK

That, the Secretariat, in coordination with the Chairpersons of the Group, develop a new Edition of the MIDANPIRG Procedural Handbook, to be presented to MIDANPIRG/19 for endorsement.

REPORT ON AGENDA ITEM 6: DATES AND VENUE OF MIDANPIRG/19 AND RASG-MID/9

Dates and Venue of MIDANPIRG/19 & RASG-MID/9

6.1 The subject was addressed in WP/41 presented by the Secretariat. The meeting received with appreciation the offer by Saudi Arabia to host the MIDANPIRG/19 and RASG-MID/9 meetings. Accordingly, the meeting agreed that the MIDANPIRG/19 and RASG-MID/9 meetings will be held face-to-face (concurrently) in Saudi Arabia during Q1-2022, providing that approval from the President of the Council is received for hosting the meetings outside of the ICAO MID Office premises (new PIRGs and RASGs TORs, refer).

6.2 The exact dates of the meetings will be coordinated between the ICAO MID Office, the Chairpersons of both Groups and Saudi Arabia.

REPORT ON AGENDA ITEM 7: ANY OTHER BUSINESS

Update List of MIDANPIRG and RASG-MID Members/Alternates/Advisors

7.1 The subject was addressed in WP/42 presented by the Secretariat. The meeting reviewed and updated the list of MIDANPIRG and RASG-MID Members/Alternates/Advisors as at **Appendices 7A** and 7**B**, respectively; and urged States, that have not yet done so, to provide the ICAO MID Office with their updates.

7.2 The meeting reviewed the ICAO MID Office 2021 Tentative Schedule of Meetings/Seminars/Workshops at: https://www.icao.int/MID/Documents/2021/MIDSched_2021.pdf

7.3 Due to the continuous COVID-19 crisis, and in order to avoid re-scheduling of events, the meeting agreed that no ICAO face-to-face meetings/events should be conducted until at least **15 August 2021**.

APPENDICES

APPENDIX 3.1A

FOLLOW-UP ACTION PLAN ON PIRG/RASG MID CONCLUSIONS AND DECISIONS

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 1	**AVIATION DATA & ANALYSES AND AIRPORTS & AIR NAVIGATION CHARGES SEMINARS/ WORKSHOPS** That, in order to foster dialogue on the development of an economically viable civil aviation system (airlines, airports, air navigation services providers, etc.) and enhance its economic efficiency and transparency: a) ICAO organize jointly with ACAO on regular basis the Aviation Data and Analyses and the Airports and Air Navigation Charges Seminars/Workshops; and b) States are encouraged to participate actively in these events..	Need to raise awareness for the implementation of ICAO guidelines and tools related to aviation data analyses and airports and air navigation charges	Aviation Data and Analyses and the Airports and Air Navigation Charges Seminars/ Workshops	ICAO and ACAO	TBD	**Ongoing**
C. 2	**STATE LETTERS ONLINE MONITORING TOOL (SLOMT)** That, in order to support States in the process of follow-up and effective provision of replies to the ICAO MID Office State Letters: a) ICAO to develop a State Letter Online Monitoring Tool (SLOMT); and b) States to designate Focal Points to support the design, development, testing and implementation of the SLOMT.	Low level of reply to ICAO State Letters	Development of SLOMT	ICAO	TBD	**Actioned** Budget to develop the SLOMT was ensured and some delay was observed for the development of the tool due to COVID-19
D. 3	**NEAR MID AIR COLLISION (NMAC) ACTION GROUP** That, the NMAC Action Group be: a) established to carry out further analyses of the reported MAC incidents and provide feedback to the ATM SG and ASRT; and b) composed of members designated by Bahrain, Iran, Oman, Saudi Arabia, UAE, IATA and ICAO.	MAC identified as an emerging risk in the MID Region	Establishment of the NMAC Action Group	MIDANPIR(17 & RASG- MID/7	Apr. 2019	**Actioned** Delay in the completion of the required action observed. (para. 3.2.2 – 3.2.3, refer)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 4	**WORKSHOP ON TEAM RESOURCE MANAGEMENT (TRM) FOR ATM** That: a) a Team Resource Management (TRM) Workshop for ATM be organized jointly by ACAO and ICAO, with support from Qatar; and b) States be encouraged to participate actively in this Workshop.	Importance of Human Factors and Team Resource Management in ATM	TRM Workshop	Qatar, ICAO & ACAO	TBD	**Pending**

APPENDIX 3.2A

Coordination between MIDANPIRG and RASG-MID

Subjects of interest for MIDANPIRG and RASG-MID	Responsible/Leading Group	
	RASG-MID	MIDANPIRG
Aerodrome Operational Planning (AOP)		X
Runway and Ground Safety	X	
AIM, CNS and MET safety issues		X
CFIT	X	
SSP Implementation	X	
SMS implementation for ANS and Aerodromes	X	
Accidents and Incidents Analysis and Investigation	X	
English Language Proficiency	X	
RVSM safety monitoring		X
SAR and Flight Tracking		X
PBN		X
Civil/Military Coordination		X
Airspace management		X
Call Sign Similarity and Confusion		X
Contingency Planning		X
USOAP-CMA	X	
COSCAP, RSOO and RAIO	X	
Air Navigation Deficiencies		X
Training for ANS personnel		X
Training other civil aviation personnel	X	
Laser attack	X	

Subjects of interest for MIDANPIRG and RASG-MID	Responsible/Leading Group	
	RASG-MID	**MIDANPIRG**
Fatigue Risk Management	X	
UAS/RPAS		X
GNSS vulnerability		X
Airborne Collision Avoidance System (ACAS)		X
NMAC		X
GRF	X	

APPENDIX 3.2B

RPAS/UTM Action Group
Draft Terms of Reference (ToR)

Objective: The objective of MID RPAS/UTM Action Group (AG) is to follow-up the global and regional developments related to Unmanned Aircraft Systems, including the ICAO activities; and develop guidance material that supports the safety management of unmanned aircraft traffic and its progressive integration in ATM Operations. The main activities of MID RPAS/UTM AG include the following:

- Identify the operational best practices for managing RPAS traffic within MID region;
- Monitor global and regional research and development activities on Unmanned aircraft (UA) and identify best practices that are applicable to MID region;
- Develop regional guidance material on regulatory framework and procedures related to (UA);
- Coordinate and organize regional events on (UA) based on latest developments;
- Encourage the sharing of best practices at regional level on (UA) operations;
- Coordinate with MIDANPIRG and RASG-MID subsidiary bodies any activity associated with (UA);
- Encourage the deployment of common regional technical and operational solutions related to (UA) operations; and
- Define the regional priorities for the development of guidance material on RPAS and UTM based on States' needs and short and medium terms planned deployments.

Meetings: The MID RPAS/UTM AG should meet at least twice a year. The meetings will be conducted virtually, except otherwise decided or hosted by a MID State.

DRAFT

APPENDIX 3.2C

NEW ICAO METHODOLOGY FOR ASSESSING AND REPORTING RUNWAY SURFACE CONDITIONS (GRF)

MID REGION GRF IMPLEMENTATION ACTION PLAN TEMPLATE

(to be tailored and detailed by each State)

STATE NAME _ _ _ _ _ _ _ _ _ _

Milestone ID	ACTION	ENTITY RESPONSIBLE	TARGET DATE[1]	EFFECTIVE DATE	REMARKS
GRF 1	Review ICAO provisions and guidance and other Organisations guidance (see below)	CAA	**31/01/2021**		
GRF 2	Designate a focal point to coordinate implementation activities at the national level	CAA	**31/01/2021**		
GRF 3	Identify concerned focal points in each entity (CAA, Airport, ANSP, Aircraft operators – include BA, GA and military as applicable)	CAA, Airports, ANSP, Aircraft operators	**31/01/2021**		
GRF 4	Establish an Implementation Coordination Team including staff from the identified stakeholder entities (as appropriate)	CAA	**15/01/2021**		
GRF 5	Coordinate and support the conduct the initial training for the CAA, Airports, ANSP and Aircraft Operators' personnel (e.g. ICAO/ACI/IATA online courses, national awareness workshop, etc.)	CAA	**15/02/2021**		
GRF 6	Identify regulations, standards, procedures and guidance material to be developed/amended	National Focal Point and the Implementation Coordination Team	**15/02/2021**		
GRF 7	Develop a detailed national implementation plan and safety risk assessment. Each entity should also establish its specific implementation plan and safety risk assessment.	CAA, Airports, ANSP, Aircraft operators	**28/02/2021**		

[1] Target dates are indicative only and should be replaced by realistic dates determined by individual State

Milestone ID	ACTION	ENTITY RESPONSIBLE	TARGET DATE[1]	EFFECTIVE DATE	REMARKS
GRF 8	Identify the necessary means and resources for the implementation (human, financial and material resources)	National Focal Point and the Implementation Coordination Team	**28/02/2021**		
GRF 9	Coordinate with Airport Runway Safety Teams	Airports	**28/02/2021**		
GRF 10	Develop and promulgate regulations and standards	CAA	**30/03/2021**		
GRF 11	Develop procedures and guidance material (translate if required)	National Focal Point and the Implementation Coordination Team	**15/04/2021**		
GRF 12	Provide the necessary means and resources for the implementation (human, financial and material resources)	CAA, Airports, ANSP, Aircraft operators	**31/05/2021**		
GRF 13	Conduct On-the-Job Training (OJT) on the implementation	CAA, Airports, ANSP, Aircraft operators	**30/06/2021**		
GRF 14	Perform tests/trials prior to the effective implementation	All	**31/07/2021**		
GRF 15	Applicability date for the new methodology for assessing and reporting runway surface conditions	All	**4/11/2021**		

Notes: ICAO Runway Safety Go-Team Assistance Missions are available to support States and Airports. ACI APEX Safety Reviews are also available to support Airports.

References:

- ICAO GRF web site https://www.icao.int/safety/Pages/GRF.aspx
- ICAO MID GRF Regional Webinar: https://www.icao.int/Meetings/webinar-series/Pages/Global-Reporting-Format-Methodology-Webinar.aspx

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APPENDIX 3.3A

MID RVSM Safety Protocol Procedure

1- MIDRMA presents evidence concerning the safety case which required immediate attention consisting of the following:

   a) Valid LHD reports including all archived reports for the same case, and or

   b) Overall Operational Risk results.

2- Name the responsible ATCUs to overcome the risk effecting RVSM implementation.

3- Effects of the occurrence to RVSM implementation.

4- Review and evaluate all the above and agree in opening the MID RVSM Safety Protocol.

5- Decide a time frame and a working schedule to present a plan for closing the MID RVSM Safety Protocol.

6- MIDRMA oversees all concerned parties responsible for closing the MID RVSM Safety Protocol and shall keep them informed of their success/failure in meeting the time frame or complying with the working schedule.

7- MIDRMA shall inform ICAO MID Office and MIDRMA Board Chairman with the progress of closing of the MID RVSM Safety Protocol whenever it is deemed necessary.

8- Closing the MID RVSM Safety Protocol must be approved by MIDRMA after consulting the MIDRMA Board Chairman and the ICAO MID Office and shall reflect the closing process and the enhancement achieved in the MID RVSM Safety Monitoring Report.

APPENDIX 3.3B

TEMPORARY RVSM APPROVAL PROCEDURE

The Procedure below is for the issuance of Temporary RVSM approval by MIDRMA Member States Civil Aviation Airworthiness Authorities:

1. The responsible Airworthiness Authority must issue Airworthiness Approval first before granting the Temporary RVSM approval for the concerned operator aircraft type.

2. The responsible Airworthiness Authority must make sure the Temporary RVSM approval is granted for new aircraft type not previously operated by the airline operator, or for the remaining number of the same aircraft type if already approved one aircraft from the same type, and in case the operator is fully compliant for height monitoring and add aircraft type already in service then the authority might grant full RVSM approval valid for two years.

   Note 1: Aircraft Category 1, operator required to height monitor two aircraft every two years.

   Note 2: Aircraft Category 2, operator required to height monitor 60% of their fleet.

   Note 3: Aircraft Category 3, Operators of aircraft types contained in this category shall have 100% of airframes monitored every2 years.

3. The validity of the Temporary RVSM approval must not exceed **90 days**; during this period the responsible airworthiness authority shall instruct the operator to contact the MIDRMA to conduct height monitoring.

   Note 1: this period is not subject to extension unless the operator provide evidence to the responsible authority to justify their failure to comply.

   Note 2: in case there is a need to extend the validity of the Temporary RVSM Approval, the extended validity must not exceed another 30 days, further failure will result in cancelling the RVSM Approval and withdrawal of the aircraft from the State official RVSM approval list.

4. The MIDRMA shall keep the responsible authority aware of the progress of height monitoring of aircraft granted Temporary RVSM approval and update the height monitoring compliance status once the monitoring is successfully completed with valid result.

MID RVSM SAFETY MONITORING REPORT 2019 (SMR2019)

Prepared by the Middle East Regional Monitoring Agency (MIDRMA)

SUMMARY

The aim of the MID RVSM Safety Monitoring Report 2019 is to provide airspace safety review of the MID RVSM airspace and to highlight by means of arguments and supporting evidence that the implementation of RVSM in the Middle East is acceptably safe.

1. Introduction:

1.1 Executive Summary

The MID RVSM Safety Monitoring Report is issued by the Middle East Regional Monitoring Agency (MIDRMA) for endorsement by the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG).

The report presents evidence that according to the data and methods used, all safety objectives set out in the MID RVSM Safety Policy in accordance with ICAO Doc 9574 (2nd Edition) continue to be met in operational services within the Middle East RVSM airspace, however there are some remarks concerning Safety Objective No. 2 which are addressed in the recommendations section of this objective.

To conclude on the current safety of RVSM operations, the three key safety objectives endorsed by MIDANPIRG have to be met:

Objective 1 The risk of collision in MID RVSM airspace due solely to technical height-keeping performance meets the ICAO target level of safety (TLS) of **2.5×10^{-9}** fatal accidents per flight hour.

The value computed for technical height risk is estimated **2.012×10^{-13}** this meets RVSM Safety Objective 1.

Objective 2 The overall risk of collision due to all causes which includes the technical risk and all risk due to operational errors and in-flight contingencies in the MID RVSM airspace meets the ICAO overall TLS of **5×10^{-9}** fatal accidents per flight hour.

The value computed for the overall risk is estimated **8.345×10^{-10}** this meets RVSM Safety Objective 2.

Objective 3 Address any safety-related issues raised in the SMR by recommending improved procedures and practices; and propose safety level improvements to ensure that any identified serious or risk-bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will not adversely affect the risk of en-route mid-air collision over the years.

Middle East RVSM Airspace Estimated Annual Flying Hours = (2,389,128) Average Aircraft Speed = 450.07 kts			
Risk Type	**Risk Estimation**	**ICAO TLS**	**Remarks**
Technical Risk	**2.012×10^{-13}**	**2.5×10^{-9}**	**Below ICAO TLS**
Overall Risk	**8.345×10^{-10}**	**5×10^{-9}**	**Below ICAO TLS**

1.2 Conclusions:

(i) The estimated risk of collision associated with aircraft height- keeping performance is **2.012×10^{-13}** and meets the ICAO TLS of **2.5×10^{-9}** fatal accidents per flight hour (RVSM Safety Objective 1),

(ii) The estimated overall risk of collision due to all causes which includes the technical risk and all risk due to operational errors and in-flight contingencies is **8.345×10^{-10}** meets the ICAO overall TLS of **5×10^{-9}** fatal accidents per flight hour (RVSM Safety Objective 2),

(iii) Based on currently-available information (Except for Tripoli FIR), there is no evidence available to MIDRMA that the continued operations of RVSM adversely affects the overall vertical risk of collision.

1.3 Considerations on the RVSM Safety Objectives for MID RVSM SMRs

When considering the three safety objectives for RVSM, the following considerations should be borne in mind:

1. The assessment of risk against the TLS, both for technical and overall risk estimates, relies on height keeping performance data to assess the risk in the vertical plane and studies of traffic density to calculate the risk in the horizontal plane. There are numbers of assumptions that must be verified to satisfy the reliability of the risk assessment, the verification of these assumptions deals primarily with monitoring of aircraft performance issues.
2. The Aircraft performance is assessed by individual airframe and by monitoring group. A monitoring group consists of aircraft that are nominally of the same type with identical performance characteristics that are made technically RVSM compliant using a common compliance method. Monitoring group analysis is necessary to verify that the Minimum Aviation System Performance Standards (MASPS) for that group is valid. Aircraft that are made RVSM compliant on an individual basis are termed non-group.

3. The RVSM Safety Objective 2, dealing with overall risk, takes into account the technical risk together with the risk from all other causes. In practice, this relates to the human influence and assessment of this parameter relies on adequate reporting of Large Height Deviation (LHD) Reports, and the correct interpretation of events for input to the CRM.

4. RVSM Safety Objective 3 requires the RMA to monitor long-term trends and to identify potential future safety issues, this compare the level of risk bearing incidents for the current reporting period. It also highlights if there are issues that should be carried forward as recommendations to be adopted for future reports.

2.1 Discussion

Scope:

The geographic scope of the MID RVSM Safety Monitoring Report covers the MID RVSM airspace, which comprises the following FIRs/UIRs:

Amman	Bahrain	Beirut	Baghdad	Cairo	Damascus	Emirates
Jeddah	Kuwait	Khartoum	Muscat	Sana’a	Tehran	Tripoli*

T-1: FIRs/UIRs of the Middle East RVSM Airspace

***Note: Tripoli FIR excluded from the RVSM safety analysis due to lack of data.**

The Data Sampling periods covered by SMR 2019 are as displayed in the below table

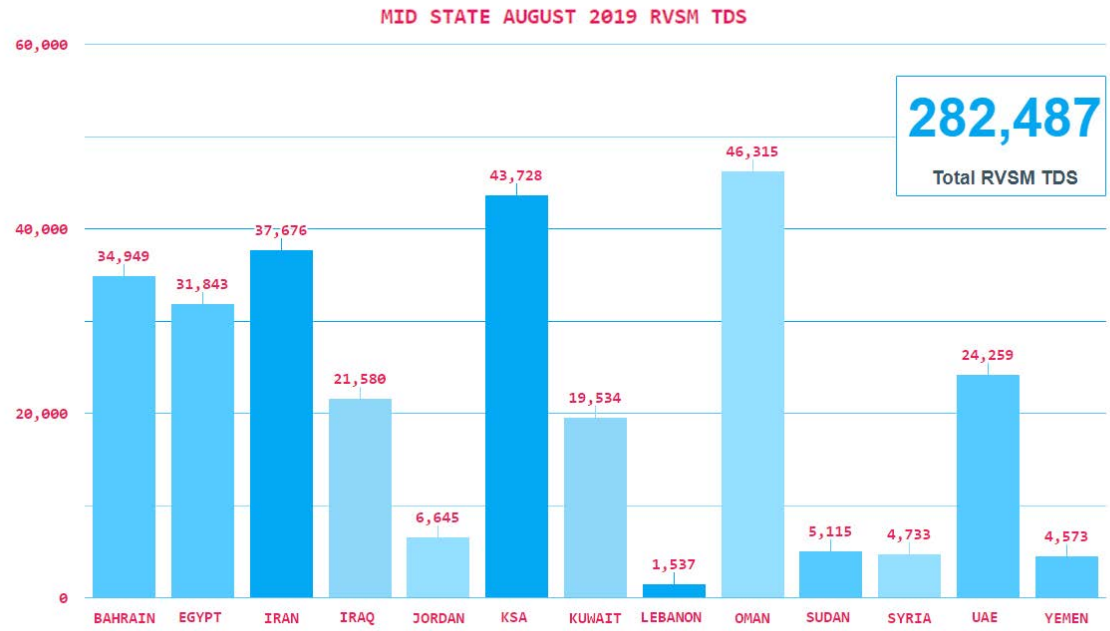
Report Elements	Time Period
Traffic Data Sample	01/08/2019 - 31/08/2019
Operational & Technical Errors	01/08/2019 - 31/07/2020

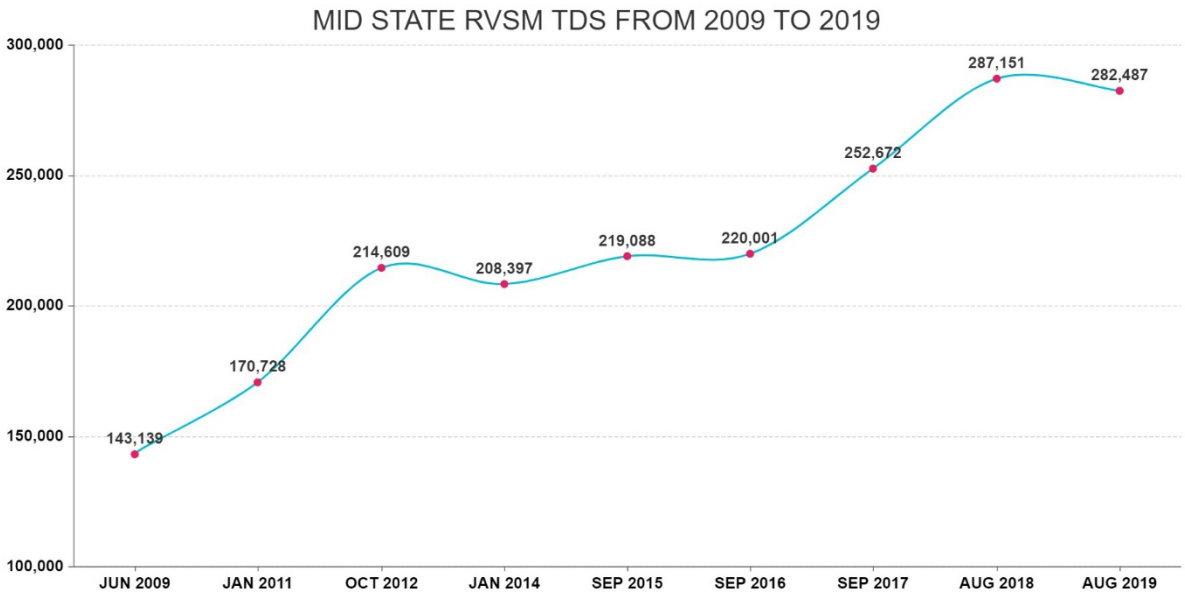
T-2: Time Period for the Reported Elements

MID States	Status	Remarks
Bahrain FIR	Accepted	-
Cairo FIR	Accepted	-
Amman FIR	Accepted	-
Muscat FIR	Accepted	-
Tehran FIR	Accepted	-
Khartoum FIR	Accepted	-
Emirates FIR	Accepted	-
Damascus FIR	Accepted	-
Sana'a FIR	Accepted	-
Jeddah FIR	Accepted	-
Beirut FIR	Accepted	-
Baghdad FIR	Accepted	-
Kuwait FIR	Accepted	-
Tripoli FIR	**No TDS**	**Excluded**
Total	13 FIRs	

Table 1; Status of the MID States RVSM Traffic Data Sample (TDS) for August 2019

2.1.1 The description of the traffic data processed for each MIDRMA member State by the MID Risk Analysis Software (MIDRAS) is depicted in the graph below, a total of **282'487** flights were processed for the 13 FIRs, these flights were evaluated and processed very carefully to ensure accurate results according to the data submitted.





SN	MID FIRs	No of TDS Aug 2018	No of TDS Aug 2019	Sep 2018 vs Aug 2019
1	Bahrain FIR	30703	**34949**	**+ 13.83**
2	Cairo FIR	31094	**31843**	**+ 2.41**
3	Amman FIR	6845	**6645**	**- 2.92**
4	Muscat FIR	40403	**46315**	**+ 14.63**
5	Tehran FIR	55628	**37676**	**-32.27**
6	Khartoum FIR	7303	**5115**	**-29.96**
7	Emirates FIR	23457	**24259**	**+ 3.42**
8	Damascus FIR	No TDS	**4733**	**-**
9	Sana'a FIR	4498	**4573**	**+ 1.67**
10	Jeddah FIR	48926	**43728**	**-10.62**
11	Beirut FIR	No TDS	**1537**	**-**
12	Baghdad FIR	21621	**21580**	**-0.19**
13	Kuwait FIR	16673	**19534**	**+ 17.16**
14	Tripoli FIR	No TDS	**No TDS**	**-**
Total		**287,151**	**282,487**	**-1.62**

MID States RVSM TDS 2018 VS 2019

SN	Reporting Point	FIRs	No of Flights
1	**SIDAD**	BAGHDAD/KUWAIT	**9447**
2	**TASMI**	BAGHDAD/KUWAIT	**9298**
3	**DAVUS**	KUWAIT/BAHRAIN	**8941**
4	**NINVA**	ANKARA/BAGHDAD	**8326**
5	**RATVO**	ANKARA/BAGHDAD	**7748**
6	**TUMAK**	BAHRAIN/EMIRATES	**7234**
7	**LONOS**	KUWAIT/BAHRAIN	**5918**
8	**PASAM**	JEDDAH/CAIRO	**5166**
9	**ULADA**	BAHRAIN/JEDDAH	**5137**
10	**OBNET**	BAHRAIN/EMIRATES	**5106**
11	**RABAP**	KUWAIT/BAHRAIN	**5106**
12	**TAPDO**	MUSCAT/KARACHI	**5042**
13	**ALPOB**	BAHRAIN/EMIRATES	**4774**
14	**PASOV**	MUSCAT/EMIRATES	**4502**
15	**ULINA**	AMMAN/CAIRO	**4496**
16	**SALUN**	ATHINAI/CAIRO	**4470**
17	**ALPOR**	MUSCAT/KARACHI	**4402**
18	**TARDI**	EMIRATES/MUSCAT	**4345**
19	**DASUT**	BAHRAIN/TEHRAN	**4019**
20	**RASKI**	MUSCAT/MUMBAI	**3848**

TDS 2019 Top 20 Busiest FIR Entry / Exit Points

2.1.3 For the fifth consecutive Safety Monitoring Report (since Libya joint the MIDRMA), Tripoli FIR has not been included in the RVSM safety analysis due to lack of TDS and LHD reports. This issue requires MIDANPIRG attention and decision on the way forward.

2.2 The Collision Risk Model (CRM)

2.2.1 The risk of collision to be modelled is that due to the loss of vertical separation between aircraft flying between FL290 and FL410 in a given portion of an airspace. One collision between two aircraft is counted as the occurrence of two accidents. The risk of collision depends both on the total number and types of aircraft flying in the system and the system characteristics.

2.2.2 The CRM provides an estimate of the number of accidents within an airspace system that might occur per aircraft flight hour due to aircraft collisions resulting from the loss of vertical separation in an RVSM environment analysis, is expressed in terms of quantifiable parameters. In the vertical dimension the CRM can be broken down in order to separately model a single route on which aircraft are flying in the same or opposite directions at adjacent flight levels, pairs of crossing routes and combinations of individual and intersecting routes, this model is applied equivalently to vertical, lateral and longitudinal separation.

2.2.3 Three parameters used within the CRM:

a. The Vertical Overlap Probability, denoted as $P_z(1\ 000)$.

b. The Lateral Overlap Probability, denoted as $P_y(0)$.

c. The aircraft Passing Frequency are the most important quantities in determining the vertical collision risk. Of these, the vertical overlap probability is also an important parameter to calculate.

2.3 TECHNICAL HEIGHT KEEPING PERFORMANCE RISK ASSESSMENT

RVSM Safety Objective 1

The risk of collision in MID RVSM airspace due solely to technical height-keeping performance meets the ICAO target level of safety (TLS) of **2.5×10^{-9}** fatal accidents per flight hour.

2.3.1. Direct evidence of compliance with TLS for Technical Height-Keeping Error

The result shows the risk of collision due to technical height-keeping performance is estimated to be **2.012×10^{-13}** fatal accidents per flight hour, which is less than the ICAO TLS **2.5×10^{-9}**.

2.3.2 Supporting evidence of compliance with TLS for technical height-keeping performance

To demonstrate that the result is reliable, it is necessary to demonstrate that the following assumptions are true:

a. The estimated value of the frequency of horizontal overlap, used in the computations of vertical-collision risk, is valid,

b. Pz(1000) – the probability of vertical overlap due to technical height-keeping performance, between aircraft flying 1000 ft. separation in MID RVSM airspace is estimated 3.257×10^{-11} valid and is less than the ICAO requirement of 1.7×10^{-8},

c. All aircraft flying with 1000ft vertical separation in MID RVSM airspace meet the ICAO Global Height Keeping Performance specifications for RVSM (All MID RVSM approved aircraft are part of the MID RVSM Height keeping Performance Program),

d. All aircraft flying 1000ft vertical separation in MID RVSM airspace meet the individual ICAO performance specification for the components of total vertical error (TVE),

e. The monitoring target for the MID RVSM height-monitoring programme is an on-going process,

f. The input data used by the CRM is valid,

g. An adequate process is in place to investigate and correct problems in aircraft technical height-keeping performance.

2.3.3 Calculating the Probability of Lateral Overlap (P_y (0))

The probability of lateral overlap $P_y(0)$ is the probability of two aircraft being in lateral overlap which are nominally flying on (adjacent flight levels of) the same route. The calculation of the $P_y(0)$ for the SMR 2018 has the following to consider:

a. The MIDRMA continued to calculate the probability of lateral overlap $\boldsymbol{P_y(0)}$ for all the MID RVSM airspace as per the ICAO methodology developed for this purpose and derived by the MID Risk Analysis Software (MIDRAS).

b. The MIDRMA calculated the average of the probability of lateral overlap $\boldsymbol{P_y(0)}$ for the whole MID RVSM airspace is estimated to be **1.145×10^{-10}.**

c. Overall, the results are considered to be valid.

2.3.4 Pz(1000) Compliance

The Pz(1000) is the probability that two aircraft at adjacent RVSM flight levels will lose vertical separation due to technical height keeping errors. The value of the probability of vertical overlap Pz(1000), based on the actual observed ASE and typical AAD data is

estimated to be of **$3.257x10^{-11}$** . This value meets the Global System Performance Specification that the probability that two aircraft will lose procedural vertical separation of 1000ft should be no greater than **$1.7x10^{-8}$**.

The MIDRMA continue to issue the minimum monitoring requirements (MMRs) through the automated MMR software which is programmed to address the MIDRMA member states with their updated requirements according to the latest RVSM approvals received, the MMR table valid for October 2020 is available in **Appendix B**.

Note: All member States are required to check and comply with their MMR through the MIDRMA website (www.midrma.com).

MID RVSM SMRs Technical Risk Values					
Year 2006	**Year 2008**	**Year 2010**	**Year 2011**	**Year 2012/13**	**Year 2014**
$2.17x10^{-14}$	$1.93x10^{-13}$	$3.96x10^{-15}$	$5.08x10^{-14}$	$6.37x10^{-12}$	$3.18x10^{-12}$
Year 2015	**Year 2016**	**Year 2017**	**Year 2018**	**Year 2019**	
$3.056x10^{-10}$	$6.347x10^{-11}$	$4.966x10^{-11}$	$1.562x10^{-11}$	$2.012x10^{-13}$	

According to the technical risk values as shown in the above table the TLS values still, meet the ICAO TLS.

2.3.5 Conclusions on Technical Vertical Collision Risk:

a. The current computed vertical-collision risk due to technical height-keeping performance meets the ICAO TLS.

b. The probability of vertical-overlap estimate, Pz(1000), satisfies the global system performance specification.

c. Most monitoring groups are complying with ICAO TVE component requirements (also known as technical height-keeping group requirements).

2.3.6 Recommendations for Safety Objective 1:

a. The MIDRMA shall continue to review the content and structure of its aircraft monitoring groups.

b. The MIDRMA will continue to keep the methods of calculating the technical CRM parameters and the risk due to technical height keeping errors under review and explore more options to enhance the MID Risk Analysis Software (MIDRAS).

c. The MIDRMA shall carry out continuous survey and investigation concerning aircraft flying within the MID RVSM airspace by collecting the TDS from member States offering to submit their RVSM TDS on a monthly basis.

2.4 ASSESSMENT OF OVERALL RISK DUE TO ALL CAUSES AGAINST THE TLS OF $5x10^{-9}$ FATAL ACCIDENTS PER FLIGHT HOUR

RVSM Safety Objective 2

The overall risk of collision due to all causes which includes the technical risk and all risk due to operational errors and in-flight contingencies in the MID RVSM airspace meets the ICAO overall TLS of **$5x10^{-9}$** fatal accidents per flight hour.

The computed value for the overall risk is **$8.345x10^{-10}$** this meets RVSM Safety Objective 2.

Overall Risk Values					
Year 2006	**Year 2008**	**Year 2010**	**Year 2011**	**Year 2012/13**	**Year 2014**
Not calculated	$4.19x10^{-13}$	$6.92x10^{-12}$	$1.04x10^{-11}$	$3.63x10^{-11}$	$4.91x10^{-11}$
Year 2015	**Year 2016**	**Year 2017**	**Year 2018**	**Year 2019**	
$7.351x10^{-10}$	$5.691x10^{-10}$	$4.518x10^{-11}$	$9.845x10^{-11}$	$8.345x10^{-10}$	

2.4.1 The vertical risk estimation due to atypical errors has been demonstrated to be the major contributor in the overall vertical-risk estimation for the MID RVSM airspace, In the previous SMRs the processed data were severely influenced by either NIL reporting of Large Height Deviations (LHDs) or no reports of categories A, B, C, D, J and K, as without these reports especially from FIRs with high volume of traffic and complexity, the provided data was found to be not representative to assess accurately the compliance with the ICAO overall TLS of **$5x10^{-9}$** fatal accidents per flight hour with the lack of the said LHD categories reports.

2.4.2 The MIDRMA presented the progress made in the development of the SMR 2019 to MSG/7 Virtual meeting (01 - 03 September 2020), and highlighted serious concerns due to the lack of LHD Reports Categories A, B C, D, H, J and K, especially from the States/FIRs with high volume of Traffic. Therefore, the MIDRMA was unable to calculate the overall risk related to RVSM Safety Objective 2 before MSG/7. Accordingly, the meeting urged States to provide the MIDRMA with the required LHD Reports before 15 October 2020, in order for the MIDRMA to finalize the SMR-2019 and present it to the ATM SG (Virtual Meeting) before presentation to MIDANPIRG/18 for endorsement and agreed to the following MSG Conclusion:

MSG CONCLUSION 7/4: RVSM DATA PROVISION TO THE MIDRMA

That,

in order to allow the MIDRMA to finalize the development of the SMR-2019 & 2020:

a) States are urged to comply with the provisions of the MIDANPIRG Conclusion 14/35; and

b) States with high volume of traffic be included in the list of air navigation deficiencies, if LHD reports are not provided before 15 October 2020.

2.4.3 The majority of the MIDRMA Member States complied with the above Conclusion and coordinated with the MIDRMA to file all LHD reports from various categories for the reporting cycle of SMR 2019. Therefore, the MIDRMA was able to calculate the overall risk for the MID RVSM airspace with LHD reports covering nearly most of its area of responsibility.

2.4.4 The MIDRMA continued to monitor the LHD reports at the eastern FIR boundary of Muscat FIR filed by Mumbai. The MIDRMA indicated in SMR 2017 the level of LHD reports filed by Muscat, Mumbai and Karachi ATCUs related to each other at their transfer of control points reached to a dangerous level and started to effect the ICAO TLS of RVSM implementation in the MID and APAC Regions. Therefore, the MIDRMA requested from the MIDRMA Board/15 meeting (Muscat, Oman; 29 – 31 January 2018) to open a Safety Protocol for the purpose of resolving this issue as soon as possible.

2.4.5 However, the MIDRMA can't see much improvement for SMR 2019 as the level of reporting LHDs between Mumbai and Muscat remains high and the safety concern still exist at the common FIR boundary points while the level of reporting LHDs between Karachi and Muscat remains in its normal reporting level.

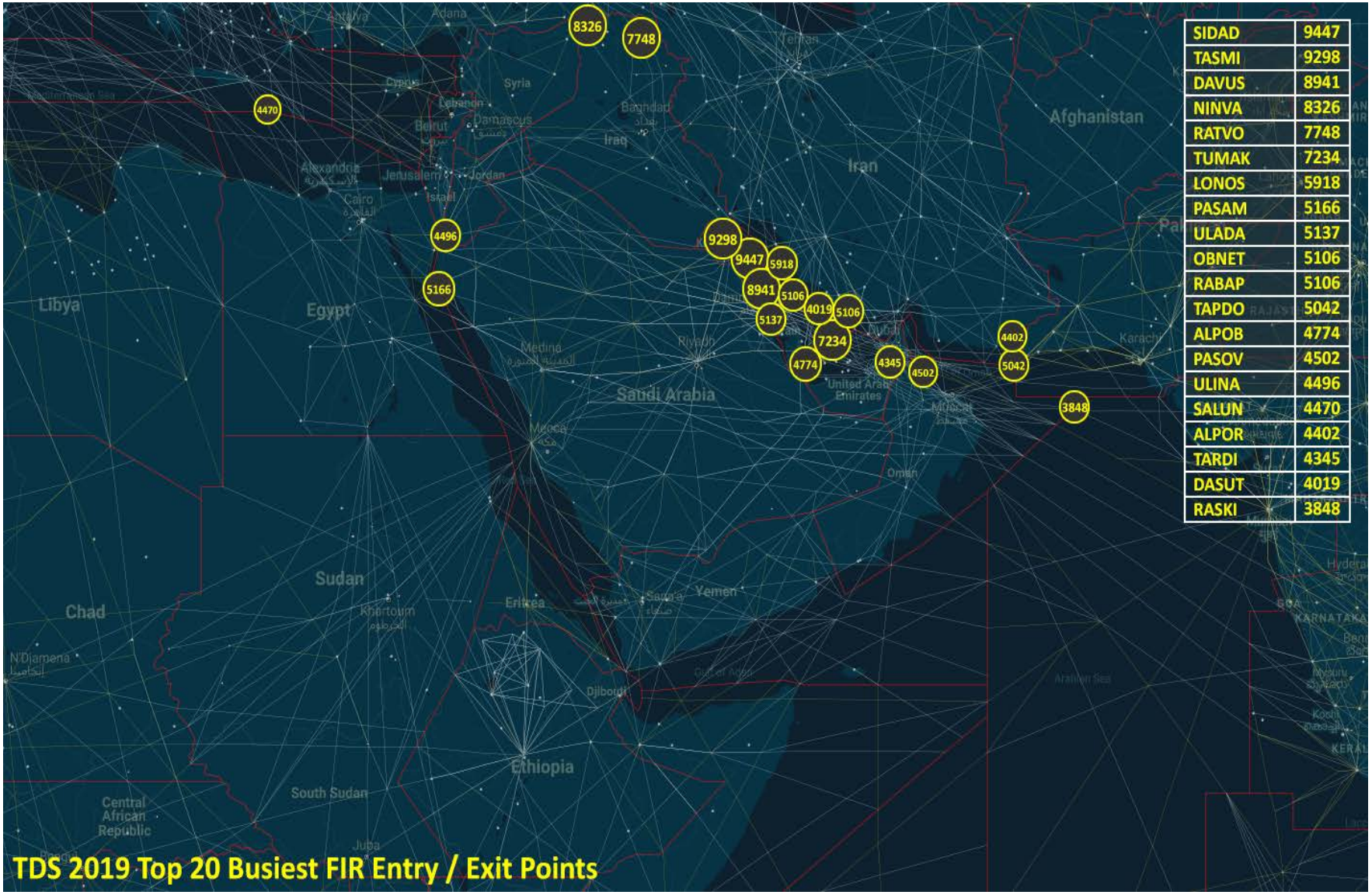
Note: A Safety Protocol is a critical safety issue effecting the implementation of RVSM operations, which require the concerned authority an immediate action to rectify/resolve the problem in a certain period of time under the supervision of MIDRMA and ICAO MID Office.

2.4.6 The Safety Protocol is under continuous review by MIDRMA and MAAR and the LHD reports filed by all concerned ATC Units are investigated and evaluated through the MIDRMA online LHD system and further update will be addressed to the next MIDRMA Board and ATM SG meetings.

2.4.7 The Table below presents a summary of operational risk associated with Large Height Deviation (LHD) reports by LHD categories, these reports used to calculate the overall vertical collision risk for the MID RVSM airspace.

LHD Cat. Code	Large Height Deviation (LHD) Category	No. of LHDs	LHD Duration (Sec.)
A	Flight crew fails to climb or descend the aircraft as cleared	**5**	**174**
B	Flight crew climbing or descending without ATC clearance	**3**	**81**
C	Incorrect operation or interpretation of airborne equipment		
D	ATC system loop error	**1**	**120**
E	ATC transfer of control coordination errors due to human factors	**8**	**295**
F	ATC transfer of control coordination errors due to technical issues		
G	Aircraft contingency leading to sudden inability to maintain level		
H	Airborne equip. failure and unintentional or undetected FL change	**2**	**50**
I	Turbulence or other weather related cause	**1**	**20**
J	TCAS resolution advisory and flight crew correctly responds	**2**	**50**
K	TCAS resolution advisory and flight crew incorrectly responds		
L	An aircraft being provided with RVSM separation is not RVSM approved		
M	Other	**2**	**50**
Total		**24**	**840**

Summary of Operational Risk associated with Large Height Deviation



SIDAD	9447
TASMI	9298
DAVUS	8941
NINVA	8326
RATVO	7748
TUMAK	7234
LONOS	5918
PASAM	5166
ULADA	5137
OBNET	5106
RABAP	5106
TAPDO	5042
ALPOB	4774
PASOV	4502
ULINA	4496
SALUN	4470
ALPOR	4402
TARDI	4345
DASUT	4019
RASKI	3848

2.4.8 Effects of Future Traffic Growth

The effect of future traffic growth on the vertical collision risk can be evaluated on the assumption of a linear relationship between traffic growth and frequency of horizontal overlap, which will directly affect the two components of the risk: the risk due to technical height-keeping performance and due to atypical operational errors.

It is clear that even for the most optimistic forecast range of 13%, the overall risk of collision will continue to meet the TLS at least until 2022. With the current uncertainty over traffic growth this issue will be revisited when the Middle East economic conditions return to more normal growth.

2.4.9 Conclusions on the overall vertical risk:

a. The overall risk of collision due to all causes which includes the technical risk and all risk due to operational errors and in-flight contingencies in the MID RVSM airspace, estimated from the operational and technical vertical risks calculated with LHD reports from most of the member States, the computed result for this SMR is considered to be representative for the MID RVSM airspace.

b. The effect of future traffic growth on the vertical collision risk can be evaluated on the assumption of a linear relationship between traffic growth and frequency of horizontal overlap, which will directly affect the two components of the risk: the risk due to technical height-keeping performance and due to atypical operational errors. It is clear that even for the most optimistic forecast range of 13%, the overall risk of collision will continue to meet the TLS at least until 2022.

2.4.10 Recommendations Applicable to Safety Objective 2:

a. MIDRMA to present the successful progress made concerning the receipt of the LHD reports other than category E to the next MIDANPIRG and MIDRMA board meetings

b. The MIDRMA shall continue to encourage States to provide Large Height Deviation Reports (LHD) of all categories and not only related to handover issues.

c. The MIDRMA, in coordination with concerned States, assure that incidents and violations which have direct impact on the implementation of RVSM within the MID Region are reported in a continuous basis through the MIDRMA LHD online reporting system in due time for operational safety assessment analysis.

2.5 ASSESSMENT OF SAFETY-RELATED ISSUES RAISED IN THIS REPORT

RVSM Safety Objective 3

Address any safety-related issues raised in the SMR by recommending improved procedures and practices; and propose safety level improvements to ensure that any identified serious or risk-bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will not adversely affect the risk of en-route mid-air collision over the years.

2.5.1 The identified safety-related issues are:

a. Confirmation of the approval status of aircraft filling RVSM flight plan (W in field 10), this is done through Bahrain and Emirates TDS received on a monthly basis.

b. Identification of operators requiring monitoring and address the minimum monitoring requirements to all MIDRMA member States.

2.5.2 Conclusions for Safety Objective 3

a. The MIDRMA started to conduct studies and researches for implementing height monitoring using ADSB data.

b. The MIDRMA address the Hot Spots of each MID FIR generated by the (MIDRAS) Software (for information only).

c. Current risk-bearing situations have been identified by using the MIDRAS and the MID Visualization and Simulation of Air Traffic and actions will be taken to ensure resolving all violations to RVSM airspace by non-approved aircraft.

2.5.3 Recommendations for Safety Objective 3

a. The MIDRMA will continue to coordinate with Member States, which have ADS-B to provide the ADS-B archived data for RVSM height monitoring.

b. MIDRMA will continue to enhance the (MIDRAS) Software and shall include new features to overcome the issue of corrupted TDS (Traffic Data Sample).

c. The MIDRMA will coordinate with ICAO MID Office to include in its work program to deliver awareness courses concerning RVSM risk analysis to brief Air Traffic Controllers and Airworthiness Inspectors of MIDRMA Member States to ensure their follow up with ICAO requirements for RVSM implementation and give briefing of updated ICAO requirements, these courses will be delivered as necessary or when requested by any Member State.

d. The MIDRMA shall continue to carry out continuous survey and investigation on the number and causes of non-approved aircraft operating in the MID RVSM airspace.

e. The MIDRMA will continue to encourage States to submit their Large Height Deviation Reports using the MIDRMA online reporting tool which has been upgraded to improve the level of reporting.

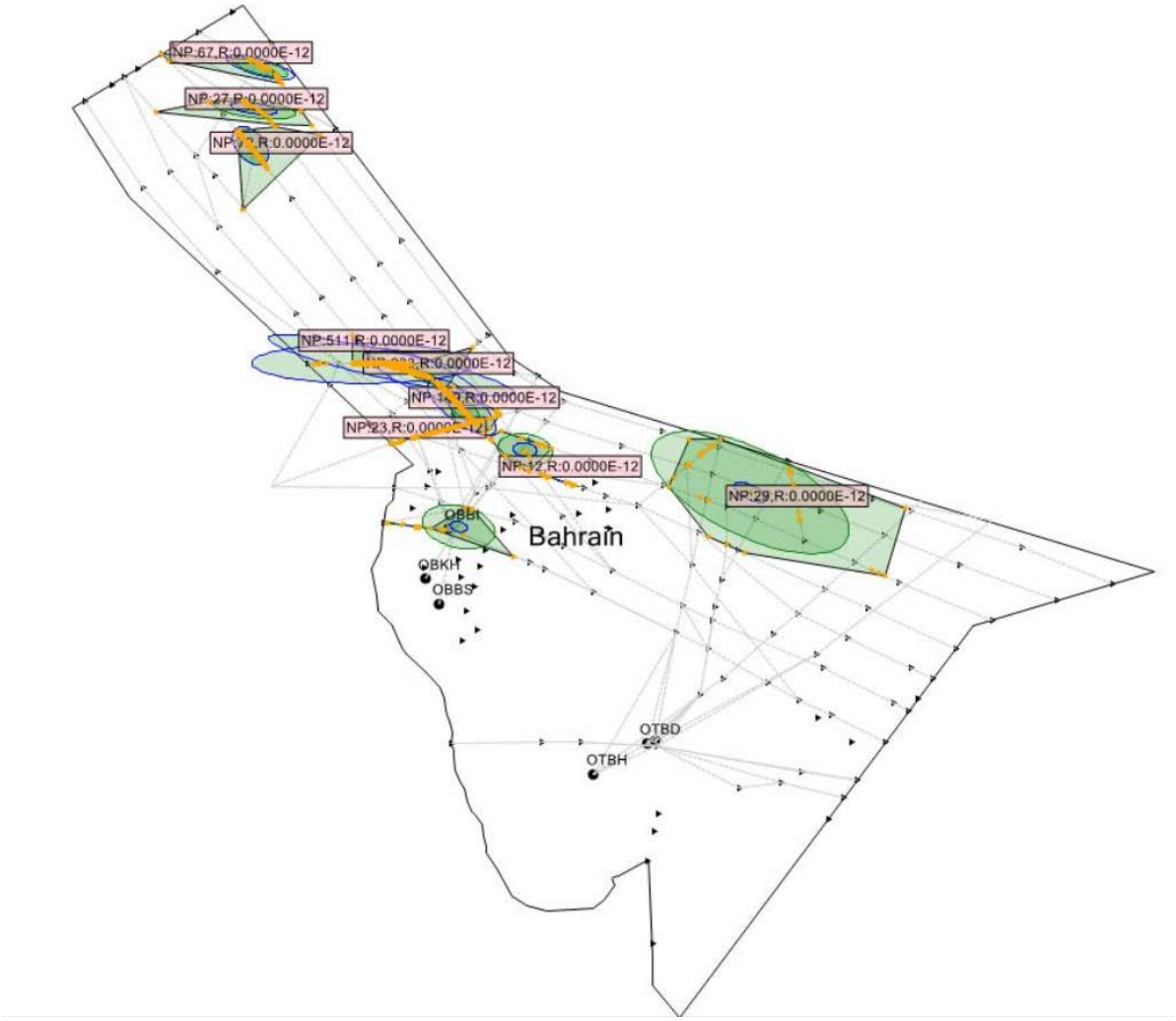
Therefore, it is concluded that this Safety Objective is currently met.

APPENDIX B

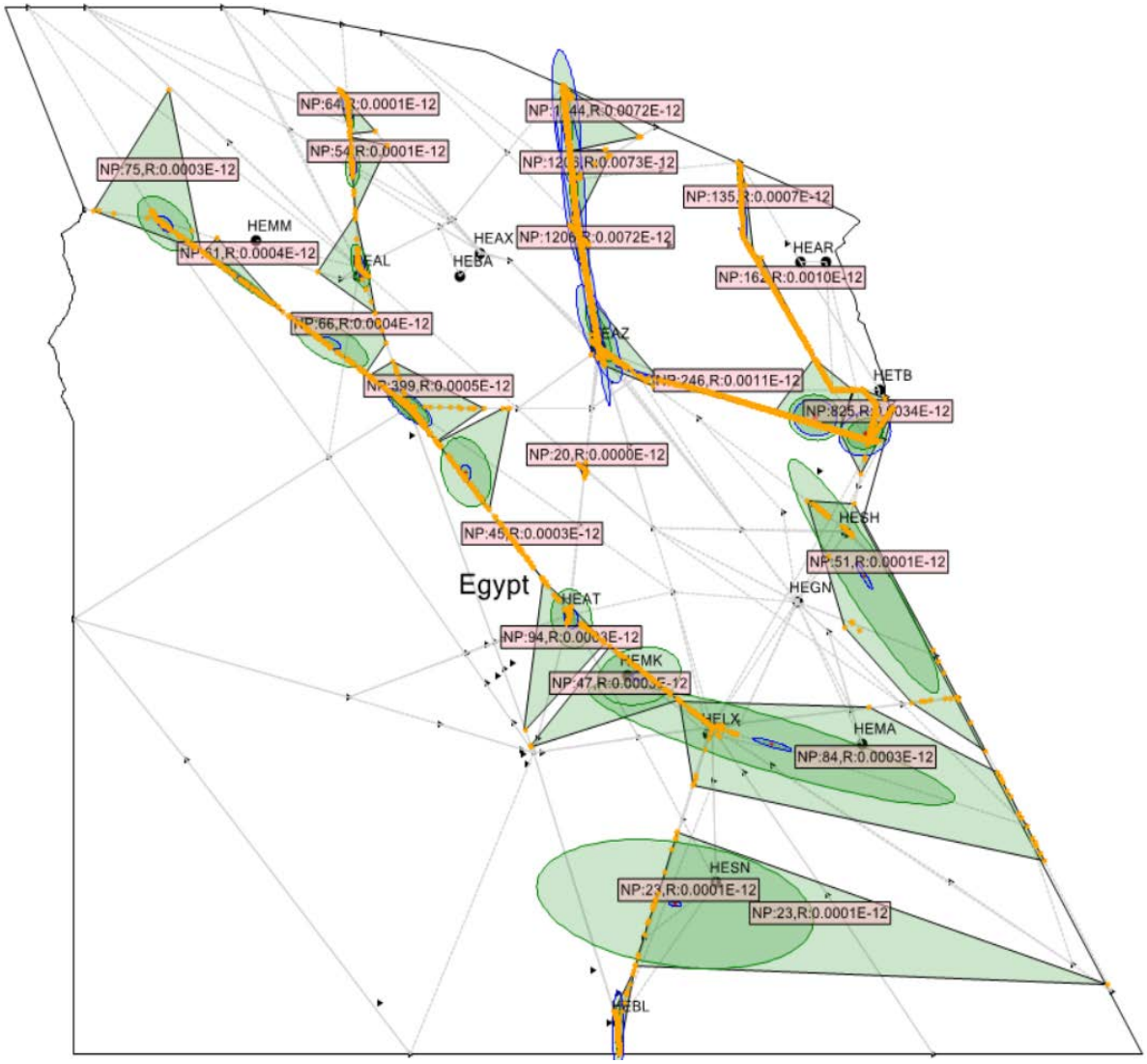
THE MID MMR as of October 2020

STATE	RVSM APPROVED A/C	NOT COVERED
BAHRAIN	54	1
EGYPT	167	15
IRAN	233	50
IRAQ	39	8
JORDAN	44	5
KSA	269	7
KUWAIT	65	6
LEBANON	31	0
LIBYA	30	13
OMAN	72	8
QATAR	280	0
SUDAN	29	15
SYRIA	15	8
UAE	589	16
YEMEN	6	3

<u>APPENDIX C</u> –MIDRMA Member States Hot Spots Generated from September 2019 TDS (for information ONLY)



Bahrain FIR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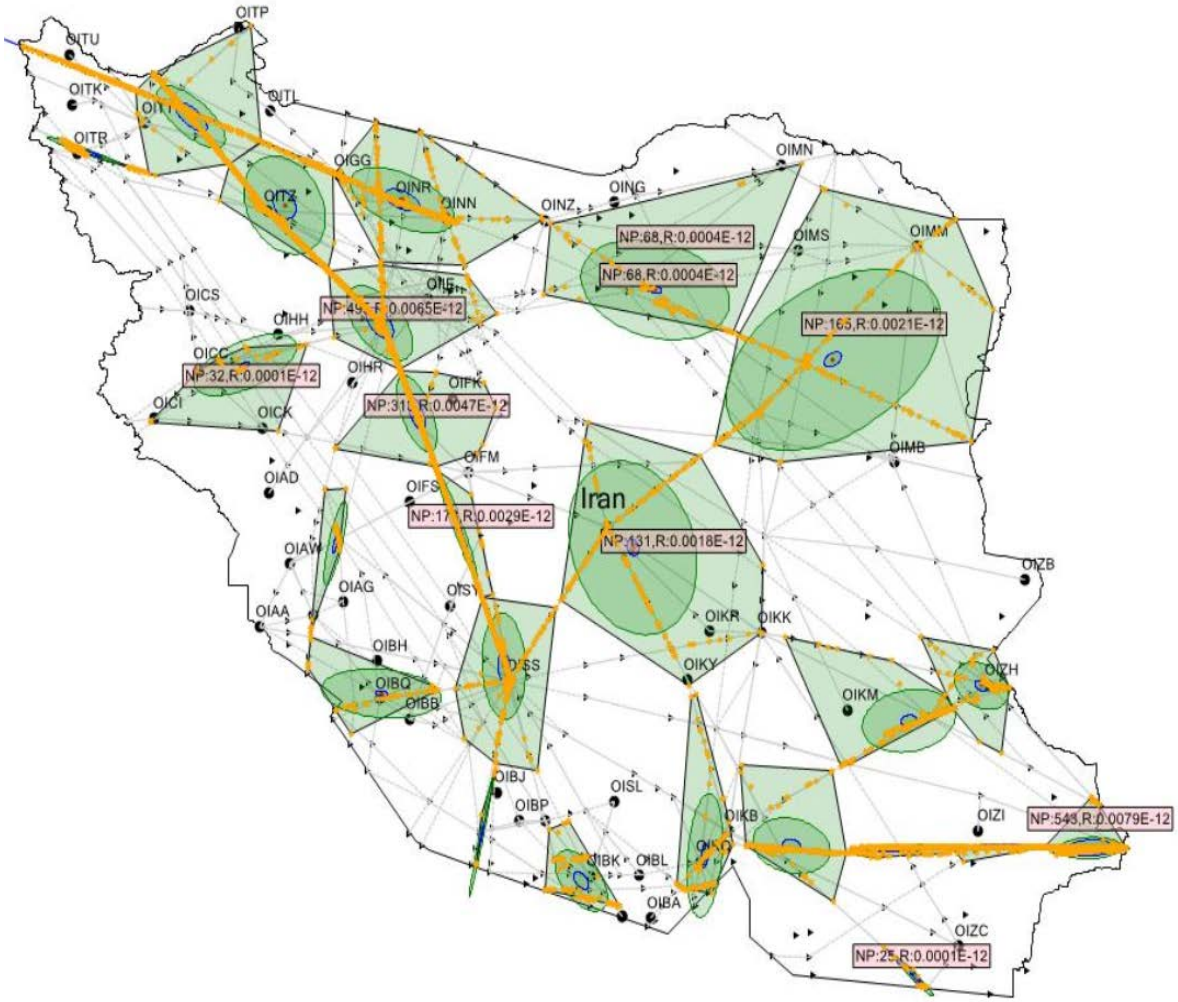
Cairo FIR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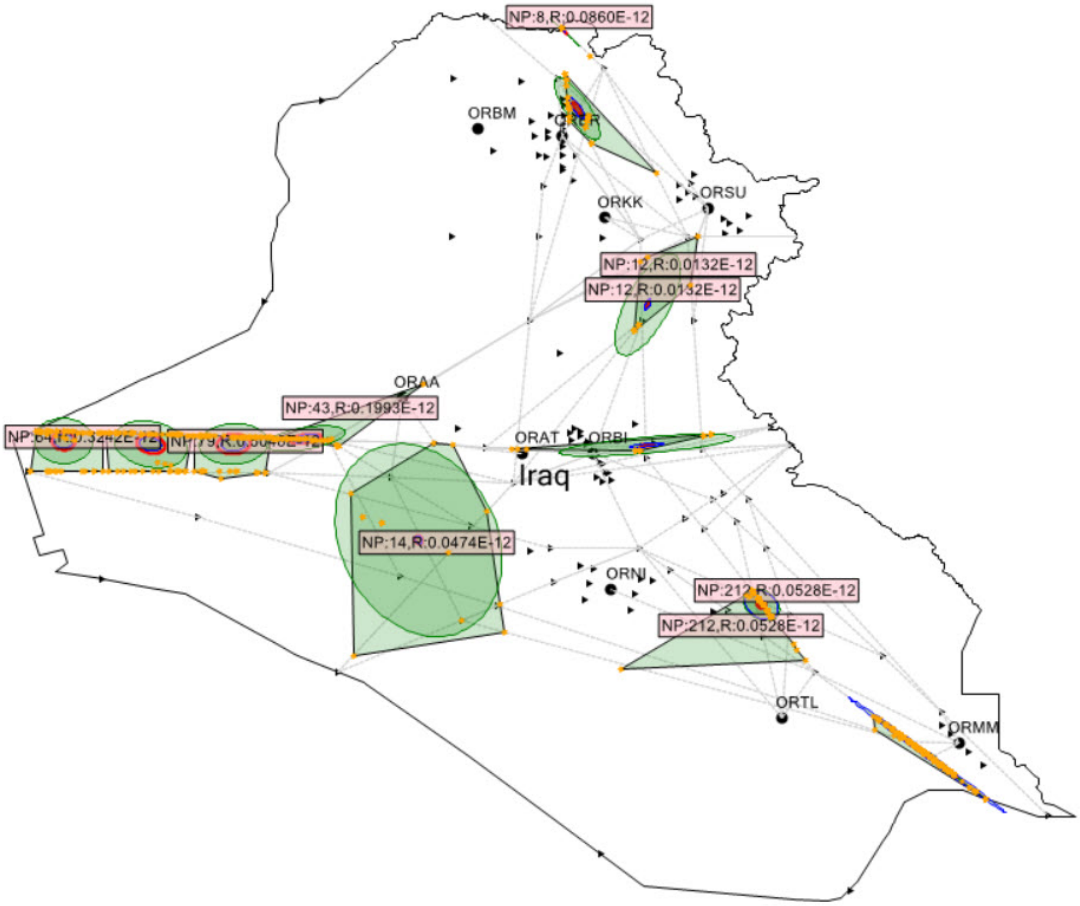
Tehran FIR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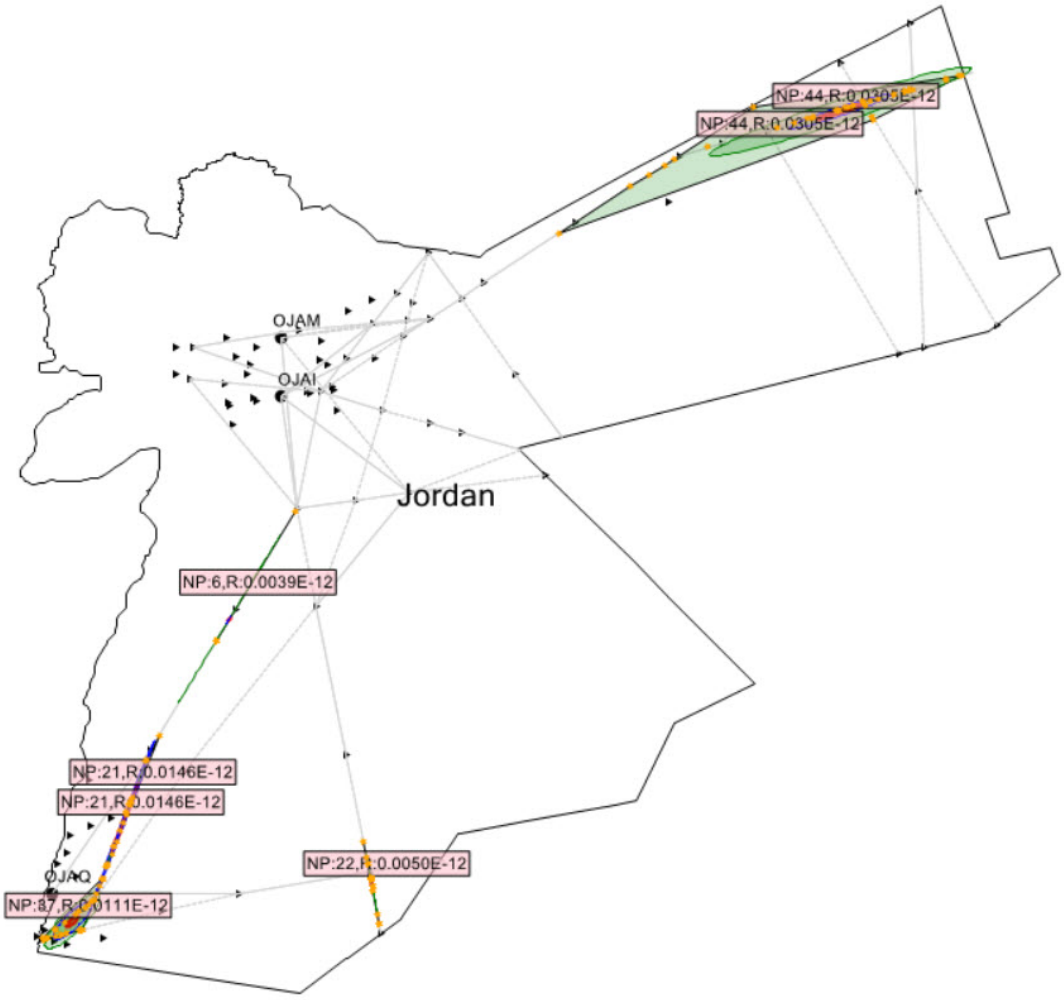
Baghdad FIR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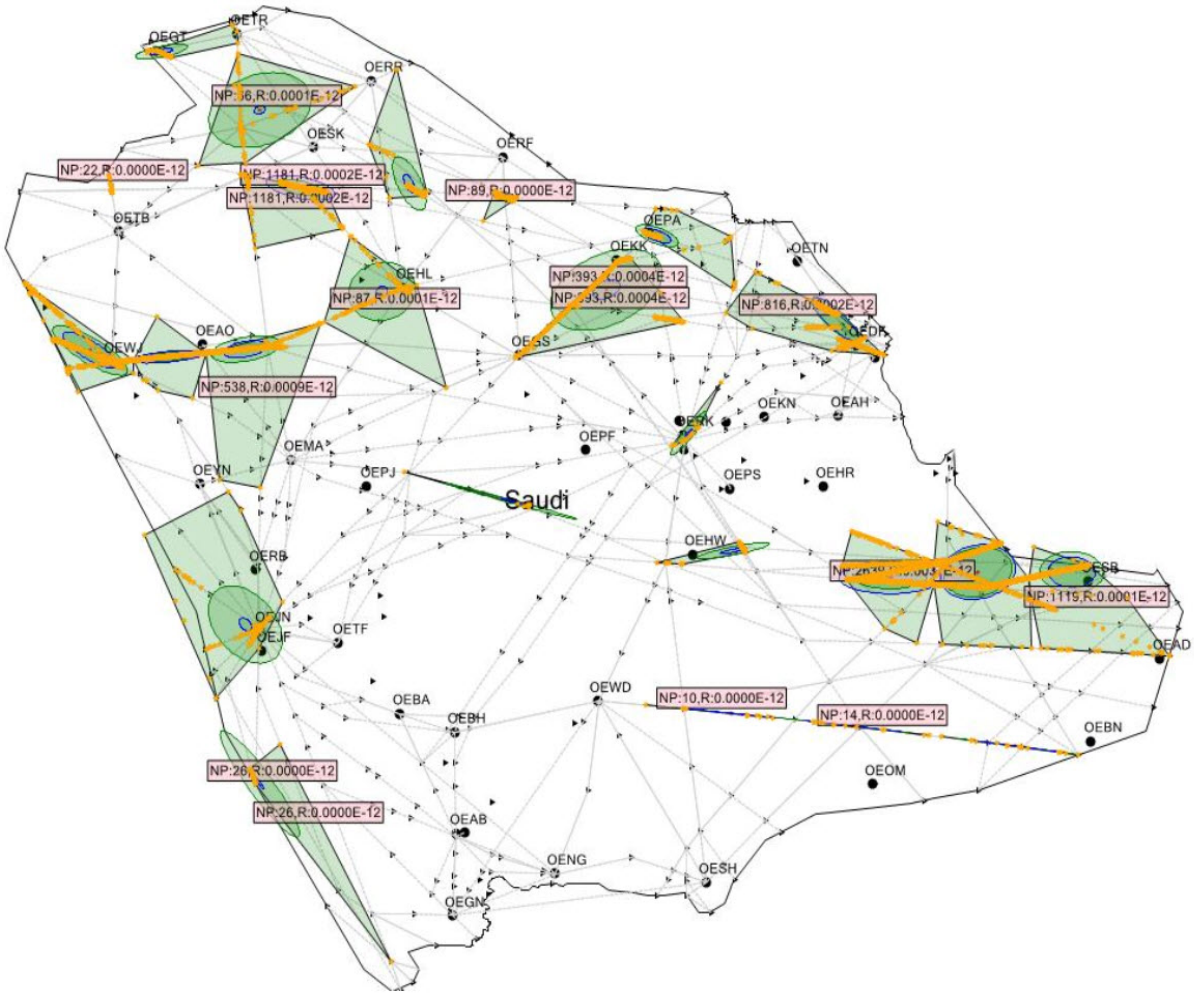
Amman FIR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OEAB
OENG
OESH
OEGN

Jeddah FIR


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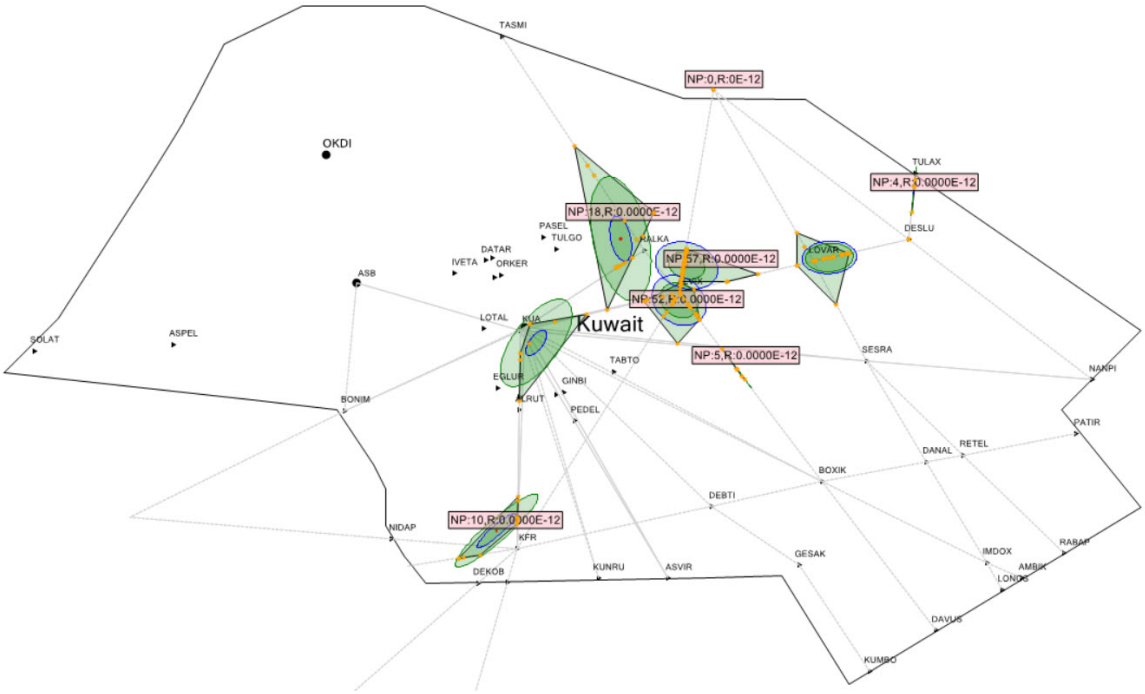
Muscat FIR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ASPEL
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NANPI
EGLUR
GINBI
BONIM
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PATIR
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NIDAP
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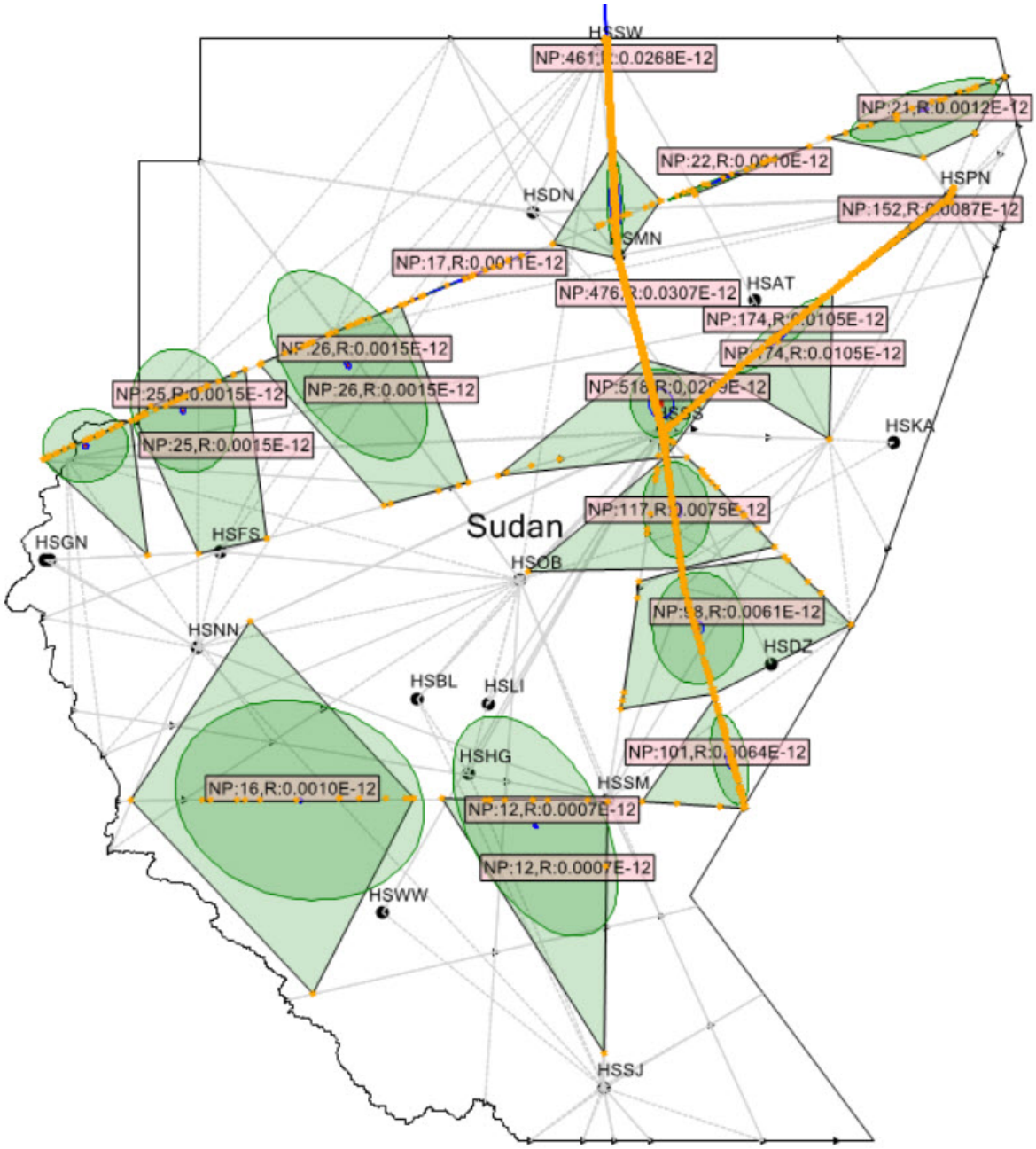
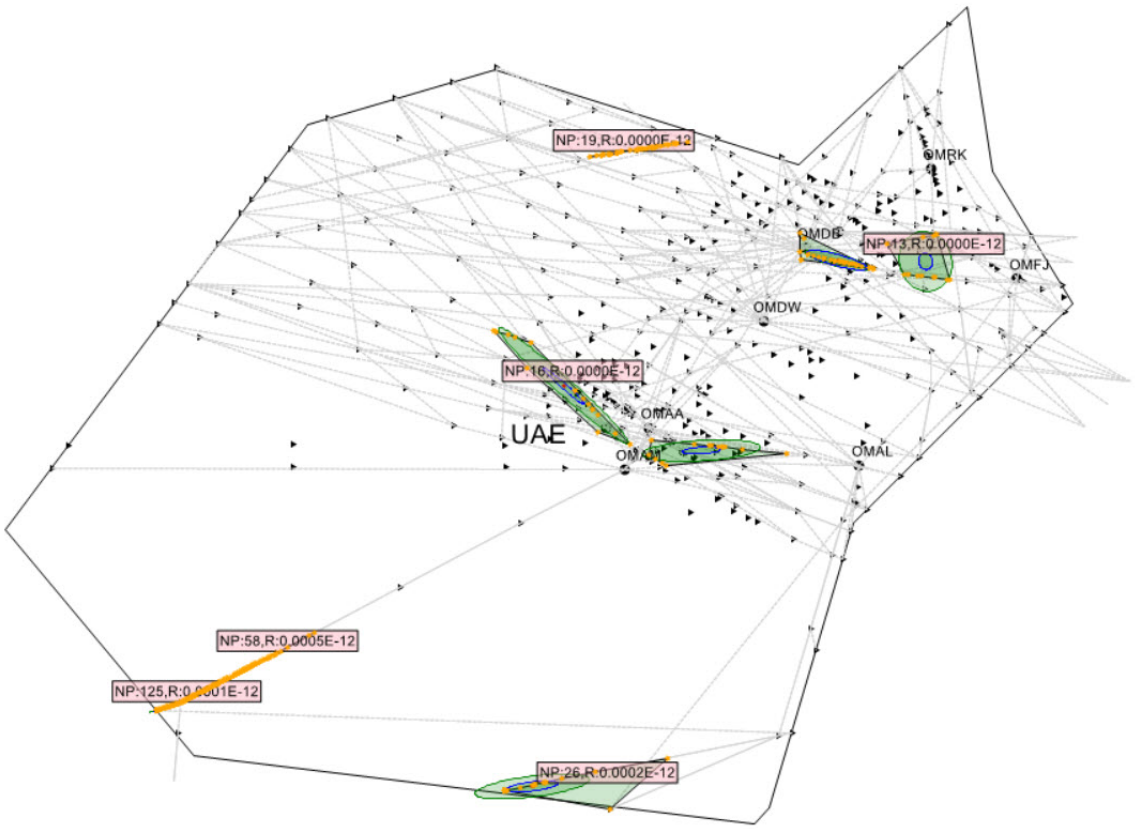
RABAH
AMBIK
DEKOB
KUNRU
ASVIR
LONOS
DAVUS
KUMBO

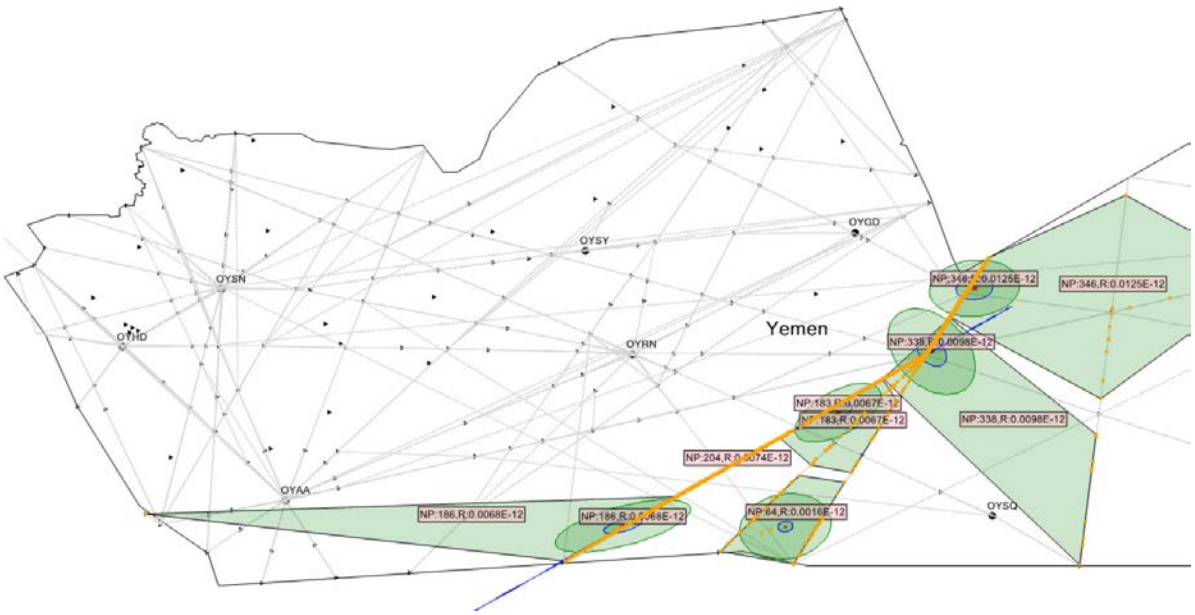
Kuwait FIR



Khartoum FIR



Emirates FIR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OYSN
OYHD
OYRN
Yemen
OYAA
OYSQ
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NP:338,R:0.0098E-12
NP:183,R:0.0067E-12
NP:183,R:0.0067E-12
NP:338,R:0.0098E-12
NP:204,R:0.0074E-12
NP:186,R:0.0068E-12
NP:186,R:0.0068E-12
NP:64,R:0.0016E-12

Sana’a FIR

MID RVSM SAFETY MONITORING REPORT 2020 (SMR 2020)

Prepared by the Middle East Regional Monitoring Agency (MIDRMA)

SUMMARY

The aim of the MID RVSM Safety Monitoring Report 2020 is to provide airspace safety review of the MID RVSM airspace and to highlight by means of arguments and supporting evidence that the implementation of RVSM in the ICAO Middle East Region is acceptably safe.

1. Introduction:

1.1 Executive Summary

The MID RVSM Safety Monitoring Report is issued by the Middle East Regional Monitoring Agency (MIDRMA) for endorsement by the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG).

The report presents evidence that according to the data and methods used, all safety objectives set out in the MID RVSM Safety Policy in accordance with ICAO Doc 9574 (2nd Edition) continue to be met in operational services within the Middle East RVSM airspace with some reservation for Safety Objective 3 which is under continuous monitoring by MIDRMA.

To conclude on the current safety of RVSM operations, the three key safety objectives endorsed by MIDANPIRG have to be met:

Objective 1
The risk of collision in MID RVSM airspace due solely to technical height-keeping performance meets the ICAO target level of safety (TLS) of **2.5×10^{-9}** fatal accidents per flight hour.

The value computed for technical height risk is estimated **9.185×10^{-13}** this meets RVSM Safety Objective 1.

Objective 2
The overall risk of collision due to all causes which includes the technical risk and all risk due to operational errors and in-flight contingencies in the MID RVSM airspace meets the ICAO overall TLS of **5×10^{-9}** fatal accidents per flight hour.

The value computed for the overall risk is estimated **5.206×10^{-10}** this meets RVSM Safety Objective 2.

Middle East RVSM Airspace Estimated Annual Flying Hours = (718,296) Average Aircraft Speed = 458.15 kts			
Risk Type	**Risk Estimation**	**ICAO TLS**	**Remarks**
Technical Risk	**9.185×10^{-13}**	**2.5×10^{-9}**	**Below ICAO TLS**
Overall Risk	**5.206×10^{-10}**	**5×10^{-9}**	**Below ICAO TLS**

Objective 3

Address any safety-related issues raised in the SMR by recommending improved procedures and practices; and propose safety level improvements to ensure that any identified serious or risk-bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will not adversely affect the risk of en-route mid-air collision over the years.

1.2 Conclusions:

(i) The estimated risk of collision associated with aircraft height-keeping performance is **9.185×10^{-13}** which meets the ICAO TLS of **2.5×10^{-9}** fatal accidents per flight hour (RVSM Safety Objective1).

(ii) The estimated overall risk of collision due to all causes which includes the technical risk and all risk due to operational errors and in-flight contingencies is **5.206×10^{-10}** which meets the ICAO overall TLS of **5×10^{-9}** fatal accidents per flight hour (RVSM Safety Objective 2)

(iii) Based on currently-available information (Except for Tripoli FIR), there is no evidence available to MIDRMA that the continued operations of RVSM adversely affects the overall vertical risk of collision other than the violation of Non-RVSM approved aircraft to the MID RVSM airspace which is under continuous monitoring and review by MIDRMA. (More details in para 2.5)

1.3 Considerations on the RVSM Safety Objectives for MID RVSM SMRs

When considering the three safety objectives for RVSM, the following considerations should be borne in mind:

1. The assessment of risk against the TLS, both for technical and overall risk estimates, relies on height keeping performance data to assess the risk in the vertical plane and studies of traffic density to calculate the risk in the horizontal plane. There are numbers of assumptions that must be verified to satisfy the reliability of the risk assessment, the verification of these assumptions deals primarily with monitoring of aircraft performance issues.

2. The Aircraft performance is assessed by individual airframe and by monitoring group. A monitoring group consists of aircraft that are nominally of the same type with identical performance characteristics that are made technically RVSM compliant using a common compliance method. Monitoring group analysis is necessary to verify that the Minimum Aviation System Performance Standards (MASPS) for that group is valid. Aircraft that are made RVSM compliant on an individual basis are termed non-group.

3. The RVSM Safety Objective 2, dealing with overall risk, takes into account the technical risk together with the risk from all other causes. In practice, this relates to the human influence and assessment of this parameter relies on adequate reporting of Large Height Deviation (LHD) Reports, and the correct interpretation of events for input to the CRM.

4. RVSM Safety Objective 3 requires the RMA to monitor long-term trends and to identify potential future safety issues, this compare the level of risk bearing incidents for the current reporting period. It also highlights if there are issues that should be carried forward as recommendations to be adopted for future reports.

2.1 Discussion

Scope:

The geographic scope of the MID RVSM Safety Monitoring Report covers the MID RVSM airspace, which comprises the following FIRs/UIRs:

Amman	Bahrain	Beirut	Baghdad	Cairo	Damascus	Emirates
Jeddah	Kuwait	Khartoum	Muscat	Sana'a	Tehran	Tripoli*

T-1: FIRs/UIRs of the Middle East RVSM Airspace

***Note: Tripoli FIR excluded from the RVSM safety analysis due to lack of data.**

The Data Sampling periods covered by SMR 2020 are as displayed in the below table

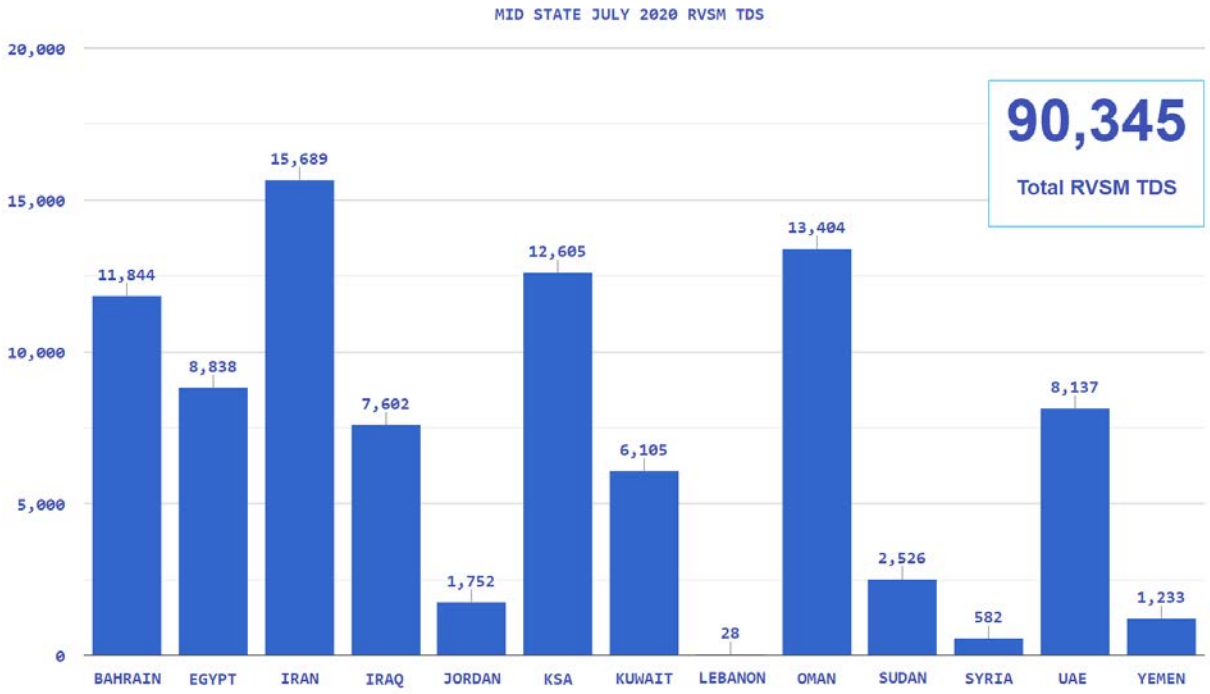
Report Elements	Time Period
Traffic Data Sample TDS	01/07/2020 - 31/07/2020
Operational & Technical Errors	01/01/2020 - 31/12/2020

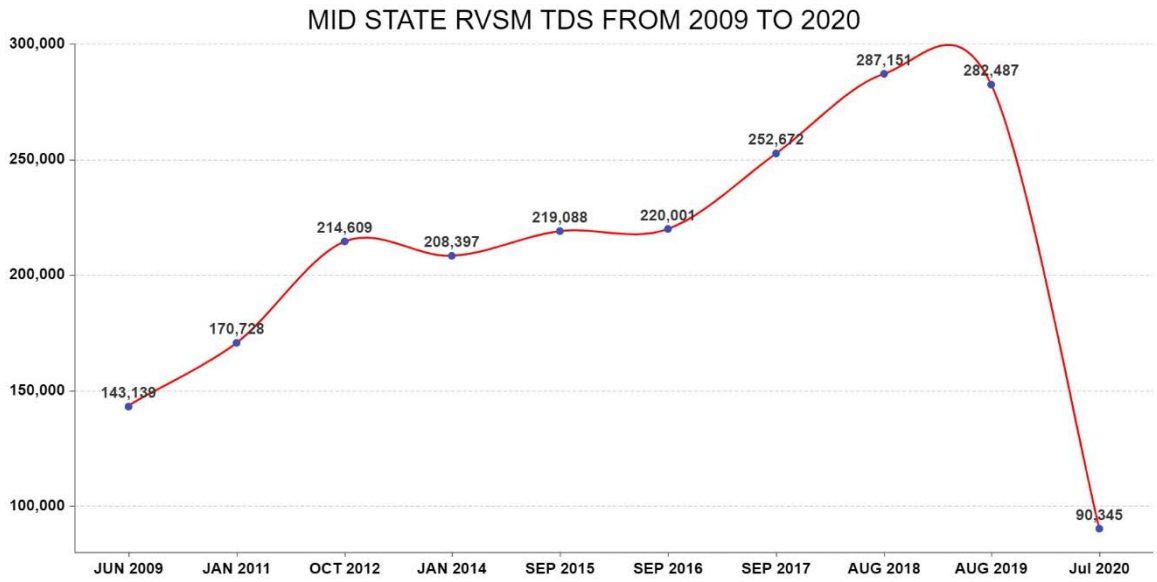
T-2: Time Period for the Reported Elements

MID States	Status	Remarks
Bahrain FIR	Accepted	-
Cairo FIR	Accepted	-
Amman FIR	Accepted	-
Muscat FIR	Accepted	-
Tehran FIR	Accepted	-
Khartoum FIR	Accepted	-
Emirates FIR	Accepted	-
Damascus FIR	Accepted	-
Sana'a FIR	Accepted	-
Jeddah FIR	Accepted	-
Beirut FIR	Accepted	-
Baghdad FIR	Accepted	-
Kuwait FIR	Accepted	-
Tripoli FIR	**No TDS**	**Excluded**
Total	13 FIRs	

Table 1: Status of the MID States RVSM Traffic Data Sample (TDS) for July 2020.

2.1.1 The description of the traffic data processed for each MIDRMA member State by the MID Risk Analysis Software (MIDRAS) is depicted in the graph below, a total of **90,345** flights were processed for the 13 FIRs, these flights were evaluated and processed very carefully to ensure accurate results according to the data submitted.





2.1.2 The COVID-19 pandemic has had a significant impact on the aviation industry worldwide due to travel restrictions and a slump in demand among travelers. The dramatic drop in demand for air transport passengers (and freight, to a lesser extent) due to this pandemic and containment measures resulted in a huge reduction in the number of the total traffic data compared with SMR 2019 TDS by 68.02 %.

#	MID FIRs	No of TDS Aug 2019	No of TDS July 2020	TDS Difference 2019 vs 2020	% of TDS Difference 2019 vs 2020
1	**Bahrain FIR**	34949	11844	-23105	-66.11
2	**Cairo FIR**	31843	8838	-23005	-72.25
3	**Amman FIR**	6645	1752	-4893	-73.63
4	**Muscat FIR**	46315	13404	-32911	-71.06
5	**Tehran FIR**	37676	15689	-21987	-58.36
6	**Khartoum FIR**	5115	2526	-2589	-50.62
7	**Emirates FIR**	24259	8137	-16122	-66.46
8	**Damascus FIR**	4733	582	-4151	-87.7
9	**Sana'a FIR**	4573	1233	-3340	-73.04
10	**Jeddah FIR**	43728	12605	-31123	-71.17
11	**Beirut FIR**	1537	28	-1509	-98.18
12	**Baghdad FIR**	21580	7602	-13978	-64.77
13	**Kuwait FIR**	19534	6105	-13429	-68.75
14	**Tripoli FIR**	NO TDS	NO TDS	-	-
	Total	**282,487**	**90,345**	**-192,142**	**-68.02%**

MID States RVSM TDS 2019 VS 2020

#	Reporting Point	FIRs	No of Flights
1	**SIDAD**	BAGHDAD / KUWAIT	**3751**
2	**RATVO**	BAGHDAD / ANKARA	**3271**
3	**TASMI**	BAGHDAD / KUWAIT	**3220**
4	**DAVUS**	BAHRAIN / KUWAIT	**3093**
5	**LONOS**	BAHRAIN / KUWAIT	**2720**
6	**NINVA**	BAGHDAD / ANKARA	**2089**
7	**DASUT**	BAHRAIN / TEHRAN	**2052**
8	**TAPDO**	MUSCAT/KARACHI	**1876**
9	**ULADA**	BAHRAIN / JEDDAH	**1771**
10	**ALPOR**	MUSCAT/KARACHI	**1726**
11	**TUMAK**	BAHRAIN / EMIRATES	**1680**
12	**PASOV**	MUSCAT/EMIRATES	**1621**
13	**ALPOB**	BAHRAIN / EMIRATES	**1616**
14	**NALPO**	BAHRAIN / EMIRATES	**1575**
15	**KITOT**	CAIRO/JEDDAH	**1555**
16	**RASKI**	MUSCAT/MUMBAI	**1514**
17	**MENSA**	EMIRATES/MUSCAT	**1416**
18	**ULINA**	CAIRO/AMMAN	**1403**
19	**DAROR**	BAHRAIN / JEDDAH	**1313**
20	**RABAP**	BAHRAIN / KUWAIT	**1308**

TDS 2020 Top 20 Busiest FIR Entry / Exit Points in the ICAO MID RVSM Airspace

2.1.3 For the sixth consecutive Safety Monitoring Report (since Libya joint the MIDRMA), Tripoli FIR has not been included in the RVSM safety analysis due to lack of TDS and LHD reports. This issue requires MIDANPIRG attention and decision on the way forward.

2.2 The Collision Risk Model (CRM)

2.2.1 The risk of collision to be modelled is that due to the loss of vertical separation between aircraft flying between FL290 and FL410 in a given portion of an airspace. One collision between two aircraft is counted as the occurrence of two accidents. The risk of collision depends both on the total number and types of aircraft flying in the system and the system characteristics.

2.2.2 The CRM provides an estimate of the number of accidents within an airspace system that might occur per aircraft flight hour due to aircraft collisions resulting from the loss of vertical separation in an RVSM environment analysis, is expressed in terms of quantifiable parameters. In the vertical dimension the CRM can be broken down in order to separately model a single route on which aircraft are flying in the same or opposite directions at adjacent flight levels, pairs of crossing routes and combinations of individual and intersecting routes, this model is applied equivalently to vertical, lateral and longitudinal separation.

2.2.3 Three parameters used within the CRM:

a. The Vertical Overlap Probability, denoted as $P_z(1\ 000)$.

b. The Lateral Overlap Probability, denoted as $P_y(0)$.

c. The aircraft Passing Frequency are the most important quantities in determining the vertical collision risk. Of these, the vertical overlap probability is also an important parameter to calculate.

2.3 TECHNICAL HEIGHT KEEPING PERFORMANCE RISK ASSESSMENT

RVSM Safety Objective 1

The risk of collision in MID RVSM airspace due solely to technical height-keeping performance meets the ICAO target level of safety (TLS) of **2.5×10^{-9}** fatal accidents per flight hour.

2.3.1. Direct evidence of compliance with TLS for Technical Height-Keeping Error

The result shows the risk of collision due to technical height-keeping performance is estimated to be **9.185×10^{-13}** fatal accidents per flight hour, which is less than the ICAO TLS **2.5×10^{-9}**.

2.3.2 Supporting evidence of compliance with TLS for technical height-keeping performance

To demonstrate that the result is reliable, it is necessary to demonstrate that the following assumptions are true:

a. The estimated value of the frequency of horizontal overlap, used in the computations of vertical-collision risk, is valid;

b. Pz(1000) – the probability of vertical overlap due to technical height-keeping performance, between aircraft flying 1000 ft. separation in MID RVSM airspace is estimated **6.581×10^{-10}** valid and is less than the ICAO requirement of **1.7×10^{-8}**;

c. All aircraft flying with 1000ft vertical separation in MID RVSM airspace meet the ICAO Global Height Keeping Performance specifications for RVSM (All MID RVSM approved aircraft are part of the MID RVSM Height keeping Performance Program);

d. All aircraft flying 1000ft vertical separation in MID RVSM airspace meet the individual ICAO performance specification for the components of total vertical error (TVE);

e. The monitoring target for the MID RVSM height-monitoring programme is an on-going process;

f. The input data used by the CRM is valid;

g. An adequate process is in place to investigate and correct problems in aircraft technical height-keeping performance.

2.3.3 Calculating the Probability of Lateral Overlap ($P_y(0)$)

The probability of lateral overlap $P_y(0)$ is the probability of two aircraft being in lateral overlap which are nominally flying on (adjacent flight levels of) the same route. The calculation of the Py (0) for the SMR 2020 has the following to consider:

a. The MIDRMA continued to calculate the probability of lateral overlap $\boldsymbol{P_y(0)}$ for all the MID RVSM airspace as per the ICAO methodology developed for this purpose and derived by the MID Risk Analysis Software (MIDRAS).

b. The MIDRMA calculated the average of the probability of lateral overlap $\boldsymbol{P_y(0)}$ for the whole MID RVSM airspace is estimated to be **6.112×10^{-11}**

c. Overall, the results are considered to be valid.

2.3.4 $P_z(1000)$ Compliance

The Pz(1000) is the probability that two aircraft at adjacent RVSM flight levels will lose vertical separation due to technical height keeping errors. The value of the probability of vertical overlap $P_z(1000)$, based on the actual observed ASE and typical AAD data is estimated to be of **6.581×10^{-10}** . This value meets the Global System Performance Specification that the probability that two aircraft will lose procedural vertical separation of 1000ft should be no greater than **1.7×10^{-8}**.

The MIDRMA continue to issue the minimum monitoring requirements (MMRs) through the automated MMR software which is programmed to address the MIDRMA member states with their updated requirements according to the latest RVSM approvals received, the MMR table valid for December 2020 is available in **Appendix B**.

Note: All member States are required to check and comply with their MMR through the MIDRMA website (www.midrma.com).

MID RVSM SMRs Technical Risk Values					
Year 2006	**Year 2008**	**Year 2010**	**Year 2011**	**Year 2012/13**	**Year 2014**
$2.17x10^{-14}$	$1.93x10^{-13}$	$3.96x10^{-15}$	$5.08x10^{-14}$	$6.37x10^{-12}$	$3.18x10^{-12}$
Year 2015	**Year 2016**	**Year 2017**	**Year 2018**	**Year 2019**	**Year 2020**
$3.056x10^{-10}$	$6.347x10^{-11}$	$4.\ 966x10^{-11}$	$1.562x10^{-11}$	$2.012x10^{-13}$	$9.185x10^{-13}$

According to the technical risk values as shown in the above table the TLS values still, meet the ICAO TLS.

2.3.5 Conclusions on Technical Vertical Collision Risk:

a. The current computed vertical-collision risk due to technical height-keeping performance meets the ICAO TLS.

b. The probability of vertical-overlap estimate, $P_z(1000)$, satisfies the global system performance specification.

c. Most monitoring groups are complying with ICAO TVE component requirements (also known as technical height-keeping group requirements).

2.3.6 Recommendations for Safety Objective 1:

a. The MIDRMA shall continue to review the content and structure of its aircraft monitoring groups (on going task).

b. The MIDRMA will continue to keep the methods of calculating the technical CRM parameters and the risk due to technical height keeping errors under review and explore more options to enhance the MID Risk Analysis Software (MIDRAS),

Note: new project has started to include more features in the MIDRAS (will be presented to the next MIDRMA Board meeting for approval).

c. The MIDRMA shall carry out continuous height monitoring survey and investigation concerning aircraft flying within the MID RVSM airspace by collecting the TDS from the member States that offered to submit their RVSM TDS on a monthly basis.

d. More MIDRMA Member States (other than Bahrain, Iraq and UAE) are encouraged to send their RVSM traffic data to the MIDRMA on monthly basis to explore more possible violations to the MID RVSM airspace.

2.4 ASSESSMENT OF OVERALL RISK DUE TO ALL CAUSES AGAINST THE TLS OF $5X10^{-9}$ FATAL ACCIDENTS PER FLIGHT HOUR

RVSM Safety Objective 2

The overall risk of collision due to all causes which includes the technical risk and all risk due to operational errors and in-flight contingencies in the MID RVSM airspace meets the ICAO overall TLS of **$5x10^{-9}$** fatal accidents per flight hour.

The computed value for the overall risk is **$5.206x10^{-10}$;** this meets RVSM Safety Objective 2.

Overall Risk Values					
Year 2006	**Year 2008**	**Year 2010**	**Year 2011**	**Year 2012/13**	**Year 2014**
Not calculated	$4.19x10^{-13}$	$6.92x10^{-12}$	$1.04x10^{-11}$	$3.63x10^{-11}$	$4.91x10^{-11}$
Year 2015	**Year 2016**	**Year 2017**	**Year 2018**	**Year 2019**	**Year 2020**
$7.351x10^{-10}$	$5.691x10^{-10}$	$4.518x10^{-11}$	$9.845x10^{-11}$	$8.345x10^{-10}$	$5.206x10^{-10}$

2.4.1 The vertical risk estimation due to atypical errors has been demonstrated to be the major contributor in the overall vertical-risk estimation for the MID RVSM airspace. The MSG/7 Virtual meeting (01 – 03 September 2020) requested the MIDRMA to organize training/awareness in RVSM LHD Reporting, and agreed on the following MSG Conclusion:

MSG CONCLUSION 7/5: TRAINING/AWARENESS ON RVSM LHD REPORTING

That,

a) the MIDRMA to organize, as soon as possible and in any case before December 2020, a Webinar on LHD reporting;

b) States are encouraged to participate actively in the Webinar on LHD Reporting; and coordinate with the MIDRMA for the provision of additional training/assistance on any RVSM safety assessment issues (including LHD reporting), as required; and

c) the MIDRMA to develop and distribute relevant training/awareness guidance on LHD reporting (leaflets, brochures, posters, etc.).

2.4.2 The MIDRMA, with the support of the ICAO MID Office, conducted on 4 November 2020 a Training/Awareness webinar for RVSM LHD Reporting and other MIDRMA tasks and responsibilities, resulting in a positive response from the States by providing LHD reports in all categories; the problem was solved and the necessary LHD reports were received on time for SMR2020 nearly from all MIDRMA focal points.

2.4.3 The MIDRMA continue to monitor the LHD reports at the eastern FIR boundary of Muscat FIR filed by Mumbai, The MIDRMA indicated in SMR2017 the level of LHD reports filed by Muscat and Mumbai ATCUs related to each other at their transfer of control points reached to a dangerous level and started to effect the ICAO TLS of RVSM implementation in the MID and APAC Regions, Therefore, the MIDRMA requested from the MIDRMA Board/15 meeting (Muscat, Oman; 29 – 31 January 2018) to open a Safety Protocol for the purpose of resolving this issue as soon as possible.

2.4.3 Although, the traffic level reduced at the common FIR boundary points for Muscat and Mumbai, the MIDRMA can't see much improvement for SMR2020 as the safety concern still exist and more works required from both ATCUs to close this safety protocol such as the implementation of OLDI/AIDC which is still ambiguous at this stage and required follow up from MIDANPIRG.

Note: A Safety Protocol is a critical safety issue affecting the implementation of RVSM operations, which requires an immediate action by the concerned authority to rectify/resolve the problem in a certain period of time under the supervision of MIDRMA and ICAO MID Office.

2.4.4 The Safety Protocol is under continuous review by MIDRMA and MAAR and the LHD reports filed by all concerned ATC Units are investigated and evaluated through the MIDRMA online LHD system and further update will be addressed to the next MIDRMA Board and ATM SG meetings.

2.4.5 The Table below presents a summary of operational risk associated with Large Height Deviation (LHD) reports by LHD categories, these reports used to calculate the overall vertical collision risk for the MID RVSM airspace. Summary of Operational Risk associated with Large Height Deviation

LHD Cat. Code	Large Height Deviation (LHD) Category	No. of LHDs	LHD Duration (Sec.)
A	Flight crew fails to climb or descend the aircraft as cleared	**2**	**60**
B	Flight crew climbing or descending without ATC clearance	**1**	**45**
C	Incorrect operation or interpretation of airborne equipment	**3**	**125**
D	ATC system loop error	**1**	**15**
E	ATC transfer of control coordination errors due to human factors	**2**	**150**
F	ATC transfer of control coordination errors due to technical issues		
G	Aircraft contingency leading to sudden inability to maintain level	**1**	**40**
H	Airborne equip. failure and unintentional or undetected FL change	**2**	**50**
I	Turbulence or other weather related cause		
J	TCAS resolution advisory and flight crew correctly responds	**3**	**89**
K	TCAS resolution advisory and flight crew incorrectly responds		
L	An aircraft being provided with RVSM separation is not RVSM approved		
M	Other	**2**	**40**
	Total	**17**	**614**

Summary of Operational Risk associated with Large Height Deviation

SIDAD	3751
RATVO	3271
TASMI	3220
DAVUS	3093
LONOS	2720
NINVA	2089
DASUT	2052
TAPDO	1876
ULADA	1771
ALPOR	1726
TUMAK	1680
PASOV	1621
ALPOB	1616
NALPO	1575
KITOT	1555
RASKI	1514
MENSA	1416
ULINA	1403
DAROR	1313
RABAP	1308

2.4.6 Effects of Future Traffic Growth

The recent COVID-19 outbreak and the relevant precautionary measures to limit its spreading are having clear impacts on human mobility at global scale. This provoked a reduction of domestic and international volumes of air passenger traffic worldwide, such effects are currently being observed in the Middle East Region. This has clear implications for the aviation industry as well as indirect consequences to several sectors (e.g. tourism) and the economy at large as well as the society. The MIDRMA is continuously monitoring the traffic growth from the RVSM traffic data provided on a monthly basis from Bahrain, Iraq and UAE and found the traffic growth compared with the July 2020 has increased by 25% - 30%. These range from a rapid and full recovery to less optimistic scenarios of slower or even incomplete recovery will depend on the duration and intensity of the lock-downs and the spread of this virus in the MIDRMA member states.

The effect of future traffic growth on the vertical collision risk can be evaluated on the assumption of a linear relationship between traffic growth and frequency of horizontal overlap, which will directly affect the two components of the risk: the risk due to technical height-keeping performance and due to atypical operational errors.

With the current uncertainty over traffic growth this issue will be revisited when the Middle East economic/aviation conditions return to more normal growth.

2.4.7 Conclusions on the overall vertical risk:

a. The overall risk of collision due to all causes which includes the technical risk and all risk due to operational errors and in-flight contingencies in the MID RVSM airspace, estimated from the operational and technical vertical risks calculated with LHD reports from most of the member States, the computed result for this SMR is considered to be representative for the MID RVSM airspace.

b. The effect of future traffic growth on the vertical collision risk can be evaluated on the assumption of a linear relationship between traffic growth and frequency of horizontal overlap, which will directly affect the two components of the risk: the risk due to technical height-keeping performance and due to atypical operational errors. It is very clear the MID region is suffering sever reduction in the traffic growth which is keeping the estimation of overall risk in safe side.

2.4.8 Recommendations Applicable to Safety Objective 2:

a. MIDRMA to present the successful progress made concerning the provision of LHD reports other than category E to the next MIDRMA board meetings.

b. The MIDRMA shall continue to encourage States to provide Large Height Deviation Reports (LHD) of all categories and not only related to handover issues.

c. Due to the failure of replying related LHD reports by some member states, the **MIDRMA** will upgrade the LHD online reporting system to alert these States who failed to respond with the need to investigate and report their outcomes in the system itself, as soon as possible.

d. The MIDRMA, in coordination with concerned States, assure that incidents and violations which have direct impact on the implementation of RVSM within the MID Region are reported in continuous basis through the MIDRMA LHD online reporting system in due time for operational safety assessment analysis.

2.5 ASSESSMENT OF SAFETY-RELATED ISSUES RAISED IN THIS REPORT

RVSM Safety Objective 3

Address any safety-related issues raised in the SMR by recommending improved procedures and practices; and propose safety level improvements to ensure that any identified serious or risk-bearing situations do not increase and, where possible, that they decrease. This should set the basis for a continuous assurance that the operation of RVSM will not adversely affect the risk of en-route mid-air collision over the years.

2.5.1 The identified safety-related issues are:

a. Confirmation of the approval status of aircraft filling RVSM flight plan (W in field 10), this is done through Bahrain, Iraq and Emirates TDS received on a monthly basis.

Note 1: As part of the duties and responsibilities of the MIDRMA is to "initiate checks of the approval status of aircraft operating in the relevant RVSM airspace, identify non-approved operators and aircraft using RVSM airspace and notify the appropriate State of Registry/State of the Operator and other RMAs, accordingly "the table below reflects the MIDRMA and other RMAs findings of the non-RVSM approved aircraft observed operating within the RVSM airspace without valid RVSM approvals and filling W in their flight plans which is considered a clear violation to the RVSM airspace.

Note 2: All the violating aircraft in the tables below were addressed officially by the MIDRMA to their concerned Airworthiness Authorities to clarify their RVSM approval status, the concerned authorities either failed to provide their approvals or confirmed these aircraft are not RVSM approved.

Note 3 : Non-RVSM approved aircraft operations within RVSM airspace could seriously affect the safety of other RVSM approved aircraft and negatively impact the ICAO's overall TLS, therefor the MIDRMA would like to raise this serious issue to MIDANPIRG for further action as there are some non-RVSM approved aircraft repeatedly violating the RVSM airspace.

#	Observed Operating RVSM In	Registrations of Violating ACFT	ICAO Type	Date of flight	Responsible State	No of flights
1	IRAQ	**152252**	AN72	1/14/2020	**IRAN**	2
2	IRAQ	**152253**	AN74	10/5/2020	**IRAN**	5
3	IRAQ	**152256**	AN72	1/3/2020	**IRAN**	2
4	IRAQ	**152257**	AN72	10/9/2020	**IRAN**	1
5	IRAQ	**152282**	IL76	1/6/2020	**IRAN**	2
6	IRAQ	**EPCPQ**	B703	1/18/2020	**IRAN**	2
7	IRAQ	**EPCQA**	B742	1/4/2020	**IRAN**	2
8	IRAQ	**YKATA**	IL76	1/1/2020	**SYRIA**	12
9	IRAQ	**YKATB**	IL76	1/2/2020	**SYRIA**	13
10	EURRMA	**EPIBO**	A310	29/07/2020	**IRAN**	1
11	EURRMA	**EPMDM**	A300	8/7/2020	**IRAN**	16
12	EURRMA	**5AFLL**	G300	10/7/2020	**LIBYA**	6
13	EURRMA	**5APOL**	IL76	26/09/2020	**LIBYA**	2
14	EURRMA	**STPRB**	AN74	18/08/2020	**SUDAN**	1
15	EURRMA,UAE	**STPSA**	F900	20/09/2020	**SUDAN**	3
16	UAE	**ZAYED17**	A332	5/1/2020	**UAE**	2

Table 1: MIDRMA Member States Non-RVSM Approved Aircraft

a. Identification of operators requiring monitoring and address the minimum monitoring requirements to all MIDRMA member states.

2.5.2 Conclusions for Safety Objective 3

a. The MIDRMA started to conduct studies and researches for implementing height monitoring using ADS-B data.

b. More researches have been conducted to explore more methods of obtaining ADS-B data such as space ADS-B from Aireon.

c. The MIDRMA address the Hot Spots of each MID FIR generated by the (MIDRAS) Software (for information only).

d. Current risk-bearing situations have been identified by using the MIDRAS and the MID Visualization and Simulation of Air Traffic and actions will be taken to ensure resolving all violations to RVSM airspace by non-approved aircraft such as issuing the MID RVSM Violation List which will be distributed to all MIDRMA Member States Air Traffic Control Units.

2.5.3 Recommendations for Safety Objective 3

a. The MIDRMA will continue to coordinate with Member States, which have ADS-B to provide the archived data for RVSM height monitoring.

b. MIDRMA will continue to enhance the (MIDRAS) Software and shall include new features to overcome the issue of corrupted TDS (Traffic Data Sample).

c. The MIDRMA will coordinate with ICAO MID Office to include in its work program to deliver awareness courses concerning RVSM risk analysis to brief Air Traffic Controllers and Airworthiness Inspectors of MIDRMA Member States to ensure their follow up with ICAO requirements for RVSM implementation and give briefing of updated ICAO requirements, these courses will be delivered as necessary or when requested by any Member State. A specialized Training/Awareness courses should be delivered to the concerned officials from Libya for capacity building, prior re-operating the RVSM Airspace in Tripoli FIR, with a close follow up on the implementations, in coordination with the MIDRMA Focal points.

d. The MIDRMA shall continue to carry out continuous survey and investigation on the number and causes of non-approved aircraft operating in the MID RVSM airspace, MIDANPIRG to address the concerned responsible MIDRMA Member States in table No 1 (MIDRMA Member States Non-RVSM Approved Aircraft) to take all necessary measure to stop aircraft under their responsibility from violating the RVSM airspace.

e. The MIDRMA will continue to encourage States to submit their Large Height Deviation Reports using the MIDRMA online reporting tool, which has been upgraded to improve the level of reporting.

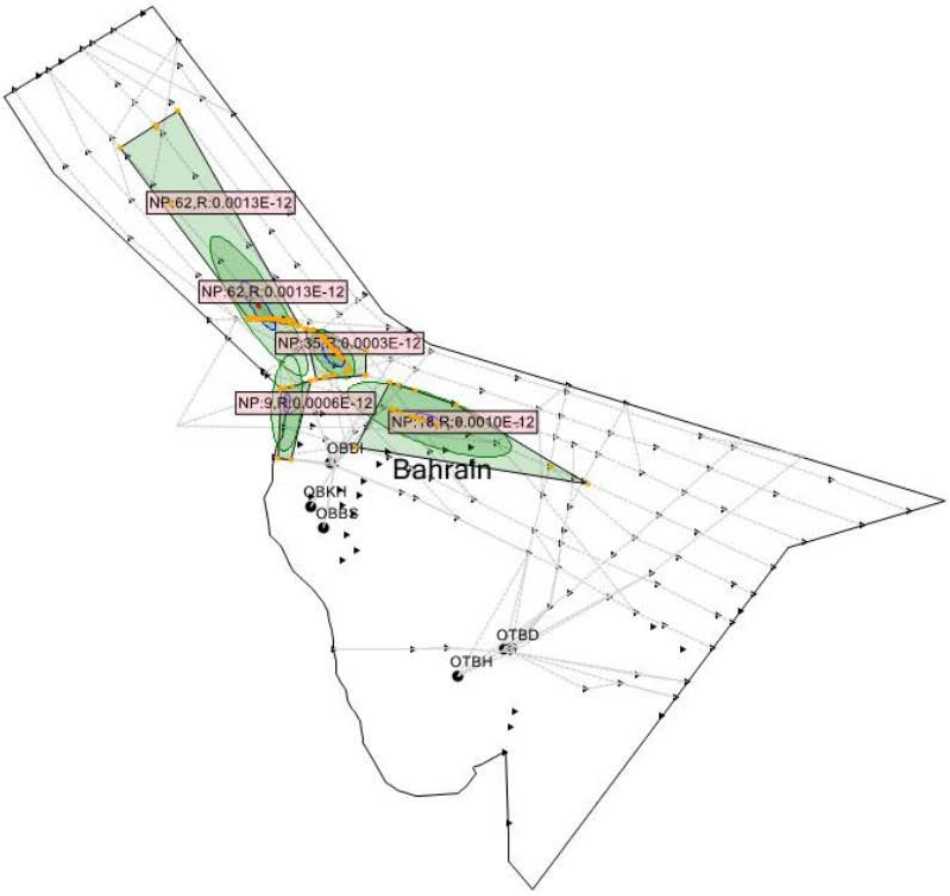
Therefore, it is concluded that this Safety Objective is currently met but with some reservation concerning the violation of the non-RVSM approved to the MID RVSM airspace.

Appendix B

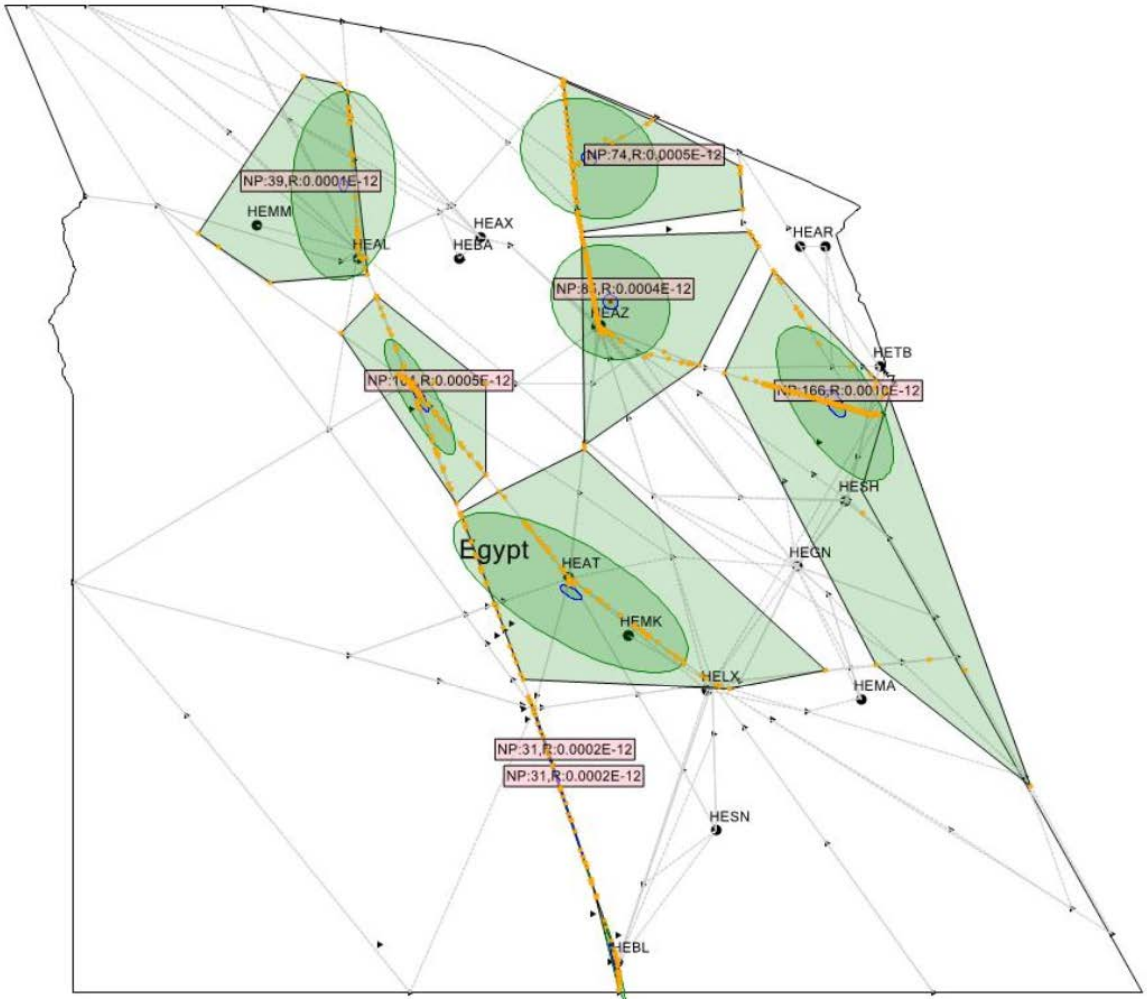
THE MID MMR as of October 2020

STATE	RVSM APPROVED A/C	NOT COVERED
Bahrain	54	1
Egypt	167	25
Iran	233	110
Iraq	40	14
Jordan	44	5
KSA	275	13
Kuwait	67	7
Lebanon	31	0
Libya	30	22
Oman	72	12
Qatar	281	0
Sudan	29	26
Syria	15	14
UAE	593	31
Yemen	6	3
TOTAL	1937	283

<u>APPENDIX C</u> –MIDRMA Member States Hot Spots Generated from September 2019 TDS (for information ONLY)



Bahrain FIR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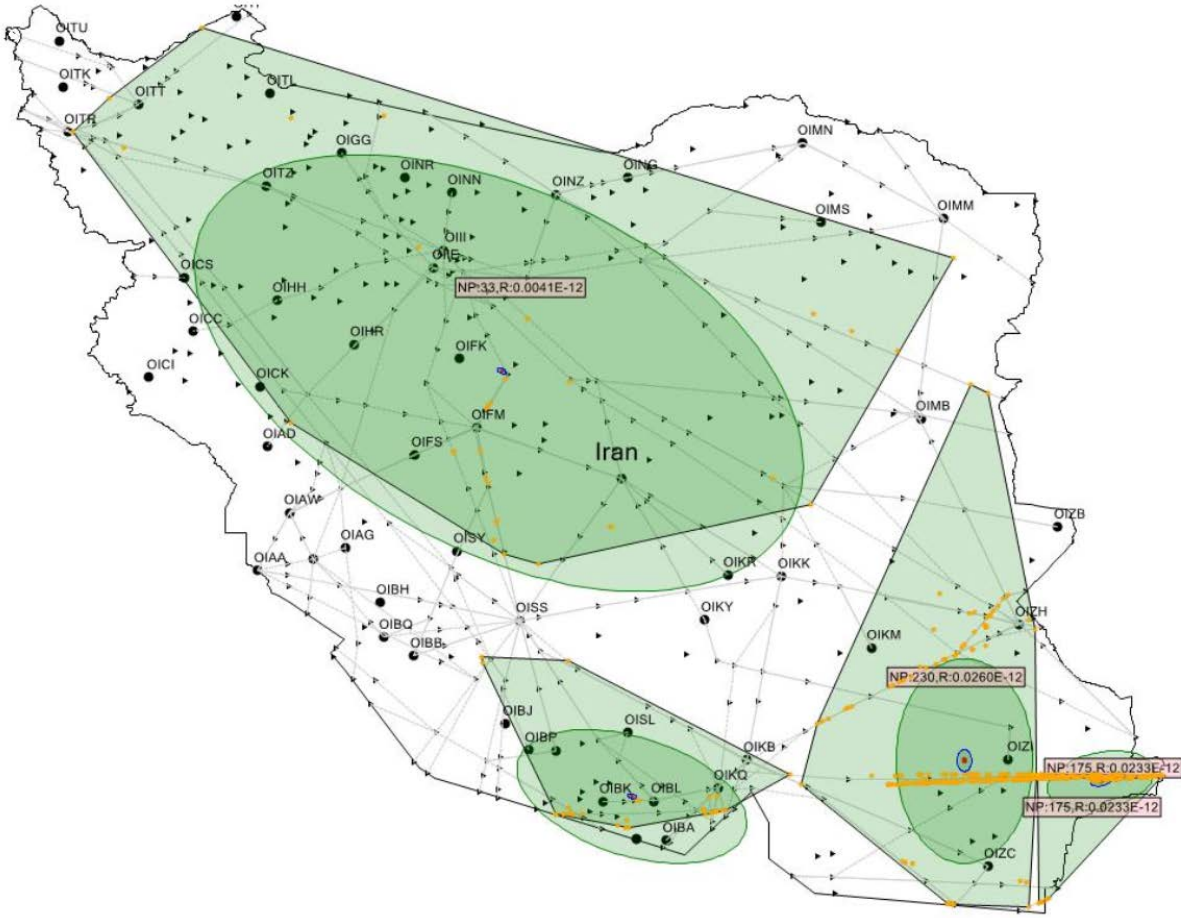
Cairo FIR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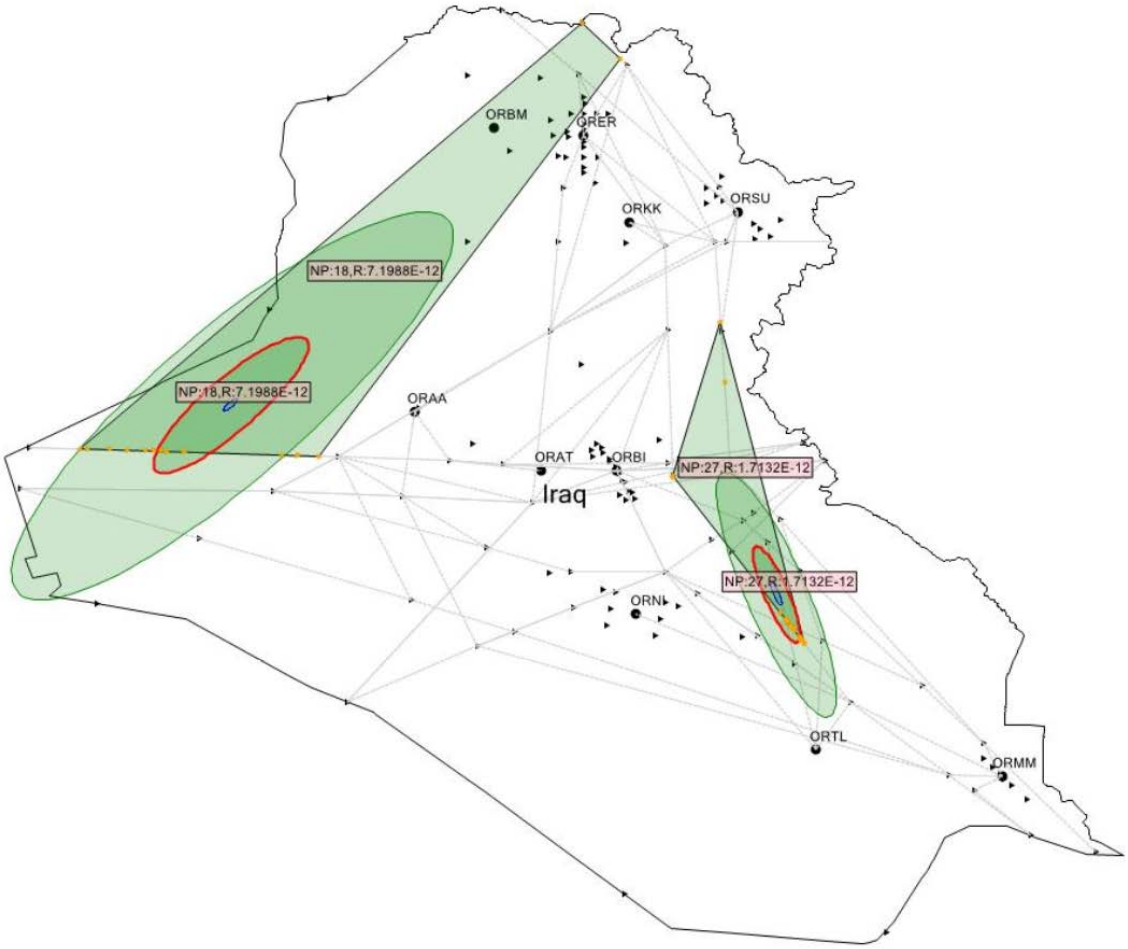
Tehran FIR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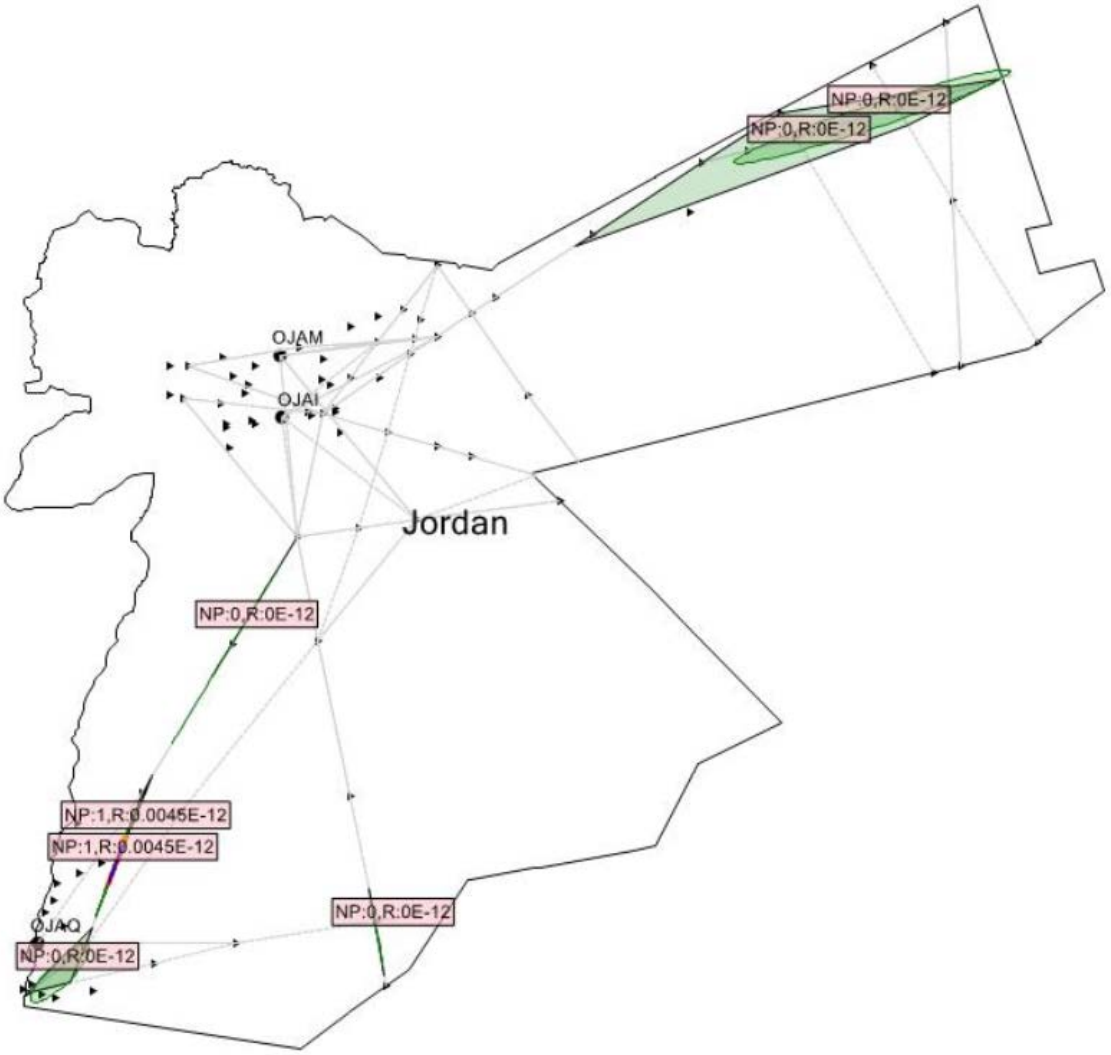
Baghdad FIR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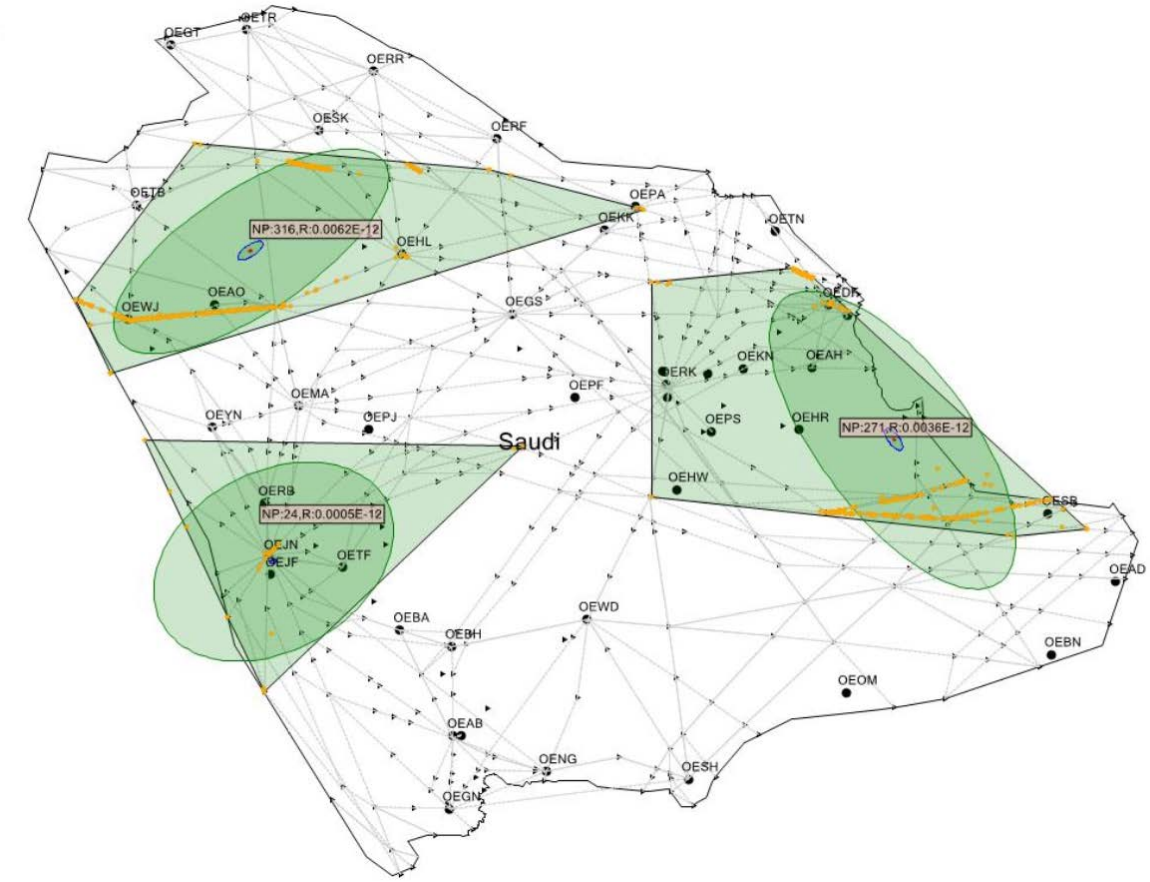
Amman FIR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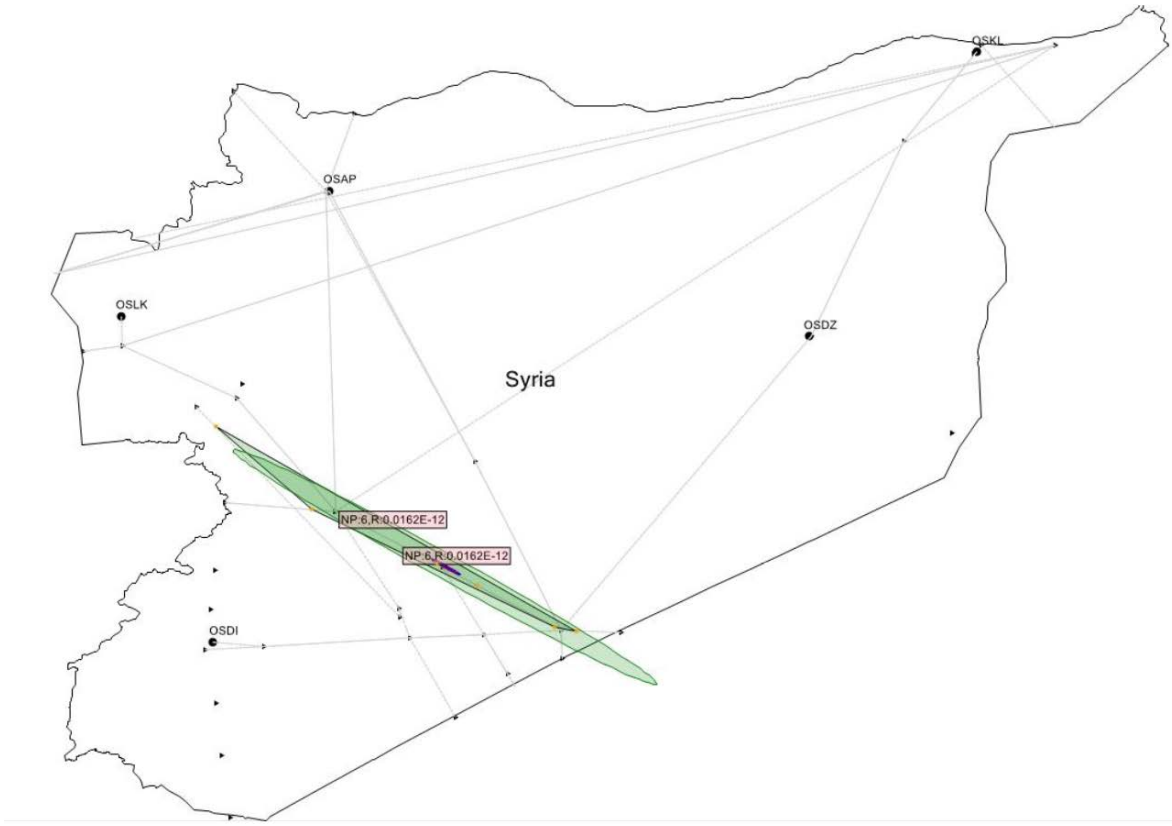
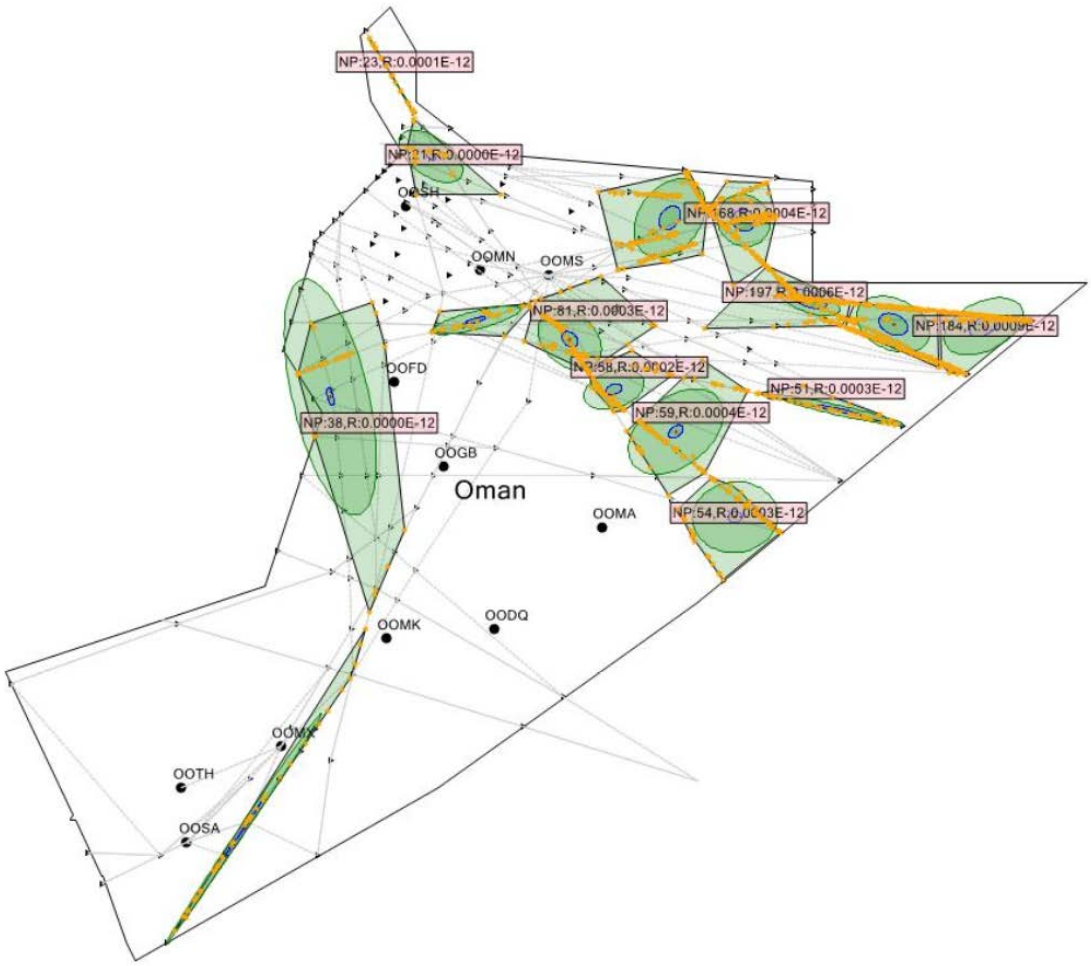
Jeddah FIR



Damascus FIR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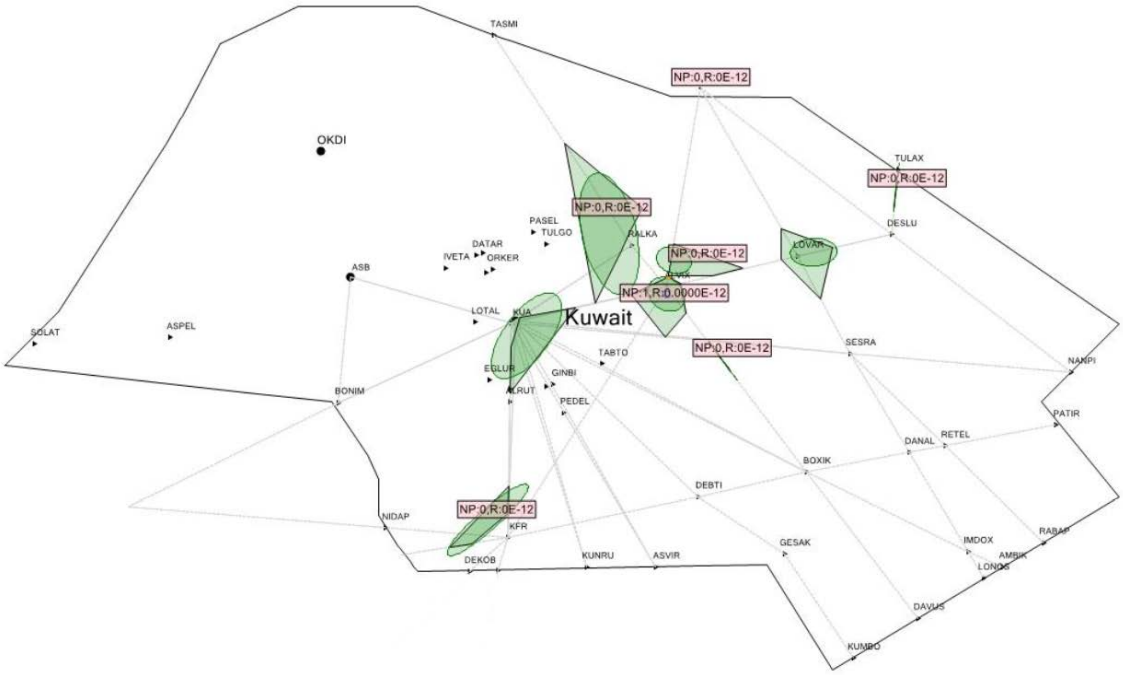
Muscat FIR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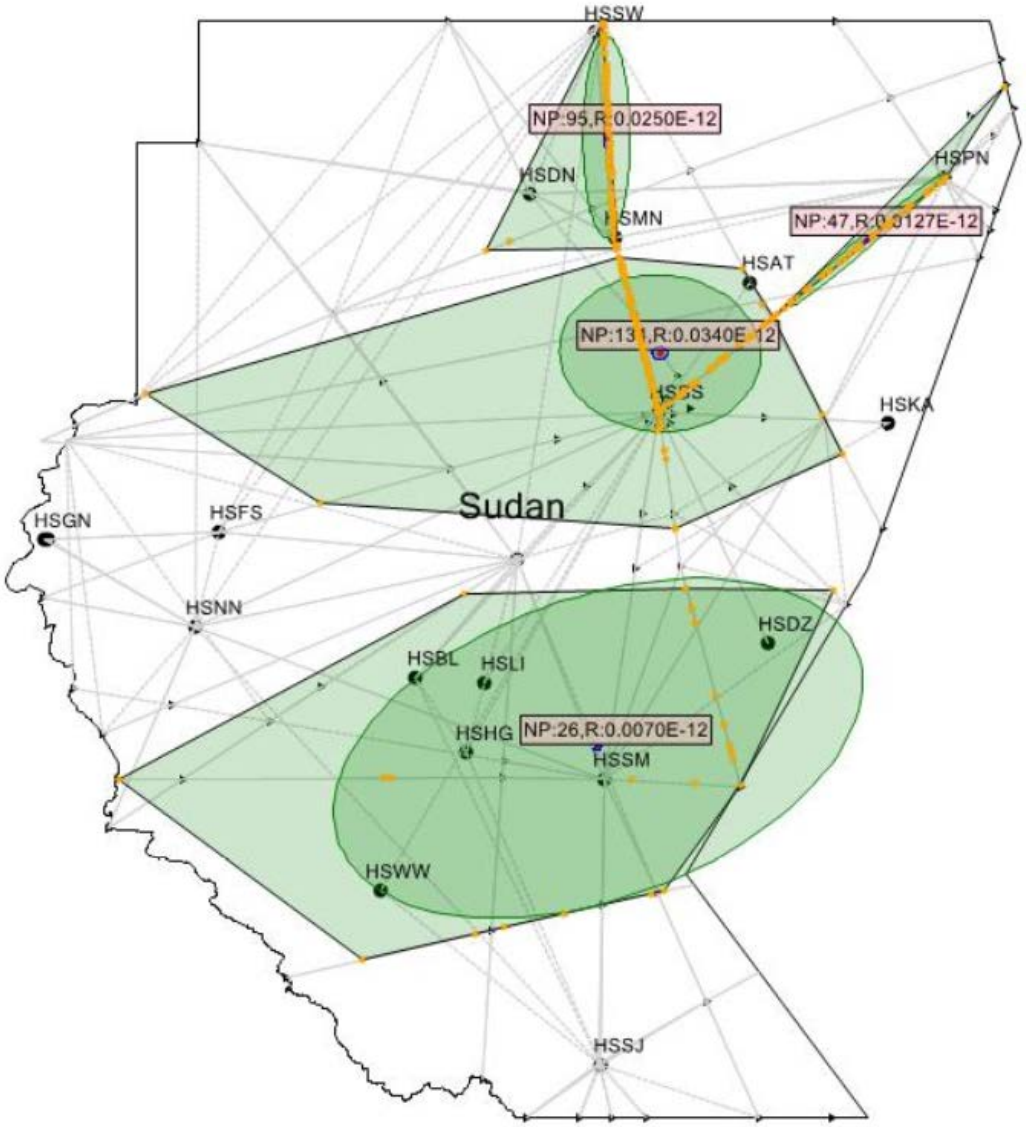
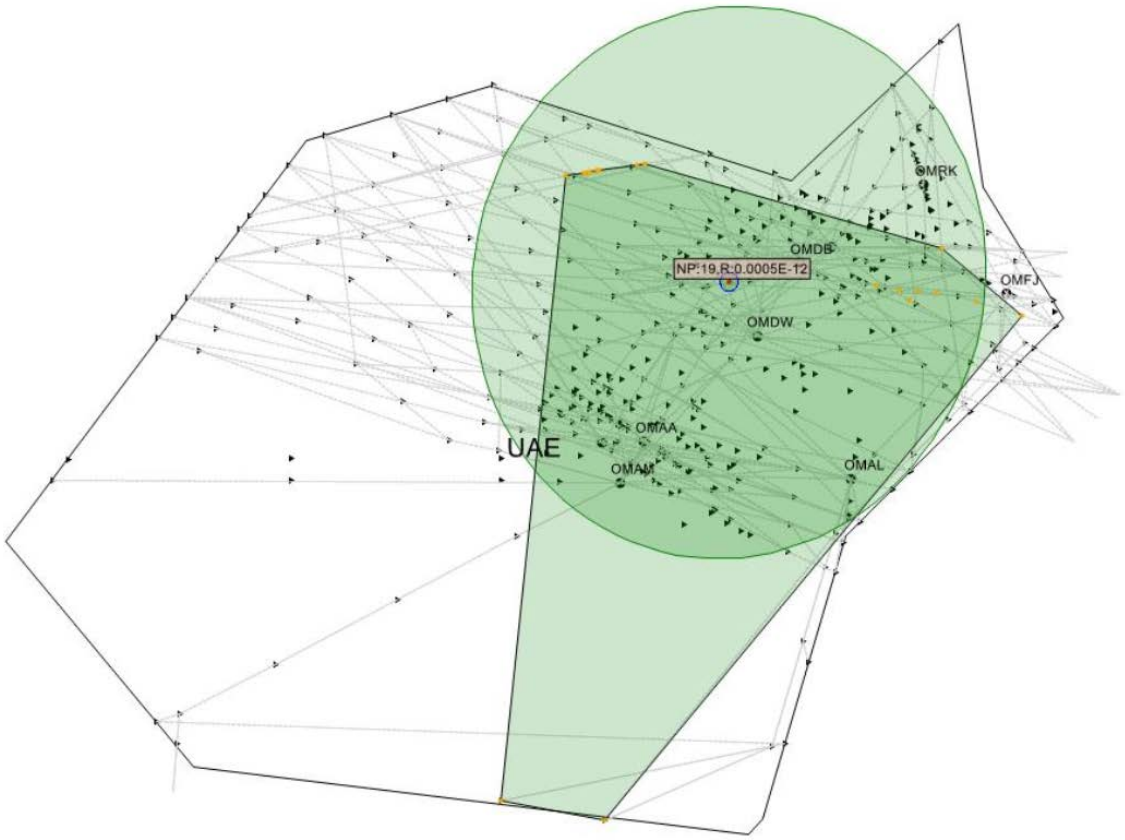
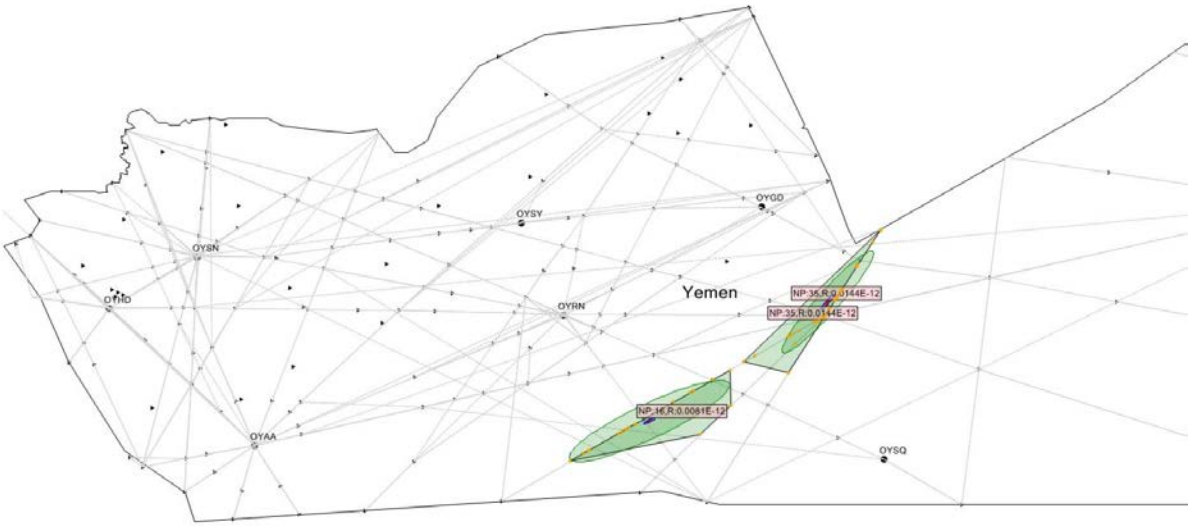
Kuwait FIR



Khartoum FIR



Emirates FIR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Sana’a FIR

APPENDIX 4.2A

FOLLOW-UP ACTION PLAN ON RASG-MID/7 CONCLUSIONS & DECISIONS

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 7/ 1	**RASG-MID SAFETY ADVISORY – GNSS VULNERABILITIES** That, the RASG-MID Safety Advisory (RSA-14) on GNSS Vulnerabilities at Appendix 4E is endorsed and be published by the ICAO MID Office EAD.	Safety concerns related to GPS jamming	RSA-14 on GNSS published on the ICAO website	RASG-MID/7	June 2019	**Completed**
C. 7/2	**7TH MID ASR** That, the seventh MID Annual Safety Report is endorsed and be posted by the ICAO MID Office on the website.	Sharing the final 7th MID-ASR for the period 2013-2017 with identified Focus Areas and Emerging Risks	MID-ASR 7th Edition published on the ICAO website	RASG-MID/7	April 2019	**Completed**
C.7/3	**PROVISION OF SAFETY DATA FOR THE DEVELOPMENT OF THE 8TH MID ASR** That, in order to present an improved version of the 8th MID-ASR to the MID-ASRT/4 meeting, States, that have not yet done so, be urged to provide the ICAO MID Office by **1 July 2019** with the number of accidents, serious incidents and incidents, safety data analysis, and their associated safety recommendations related to each occurrence category in **Appendix 5.1C** for the past 4 years (2015 – 2018), using the Template at **Appendix 5.1D.**	Identification of safety risks, trends and sharing of best practices for mitigation measures	Safety Data Analyses	States	July 2019	**Completed** SL ME 4/1.1–18/414 dated 20 December 2018. *(Replies: Egypt, Jordan, Libya, Oman, Syria & Yemen)* Reminder ME 4/1.1-19/071 dated 28 February 2019. *(Replies: Egypt, Iran and UAE)*
C. 7/4	**REVISED MID REGION SAFETY STRATEGY** That, the revised version of the MID Region Safety Strategy at **Appendix 5.1F** is endorsed.	Need to keep pace with developments, including the GASP 2020-2022	MID Region Safety Strategy	RASG-MID/7	April 2019	**Completed**

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
D. 7/5	**SSP IMPLEMENTATION AD-HOC ACTION GROUP** That, an SSP Implementation Ad-Hoc Action Group composed of the following experts, is established to develop the Regional Roadmap for SSP implementation in the MID Region: Mr. Khalid Alhumaidan from UAE (Champion) Mr. Mohammad Hushki from Jordan Mr. Mohamed Salah from Egypt Mr. Mohamed Chakib from ICAO Mr. Mashhor Alblowi from ICAO	Development of SSP and monitor the implementation in the MID Region	Development of the Regional Roadmap for SSP implementation	UAE supported by Jordan, Egypt, and ICAO	March 2020	**Completed** The MID Region Safety Management Implementation Roadmap was endorsed by the RSC/7 meeting (RSC Conclusion 7/10)
D. 7/6	**AD-HOC ACTION GROUP FOR SMS IMPLEMENTATION BY ANSPs** That, an Ad-Hoc Action Group for SMS implementation by ANSPs composed of the following experts, is established to support ICAO and CANSO in the development and implementation (as appropriate) of actions/tasks in support of the SEI related to the improvement of the status of implementation of SMS by ANSPs (ATM): Mr. Waleed Al Riyami from UAE (Champion) Mr. Ahmed Said from Egypt Mr. Ahmed Mostafa from Egypt Ms. Leena Ahmed Al-Kooheji from Bahrain Mr. Shayne Campbell form CANSO Mr. Mohamed Chakib from ICAO Mr. Elie El Khoury from ICAO Mr. Mashhor Alblowi from ICAO	Improve the status of implementation of SMS by ANSPs (ATM)	Development and implementation of actions/tasks	UAE supported by Bahrain, Egypt, Saudi Arabia, CANSO, and ICAO	March 2020	**Completed** The MID Region Safety Management Implementation Roadmap was endorsed by the RSC/7 meeting (RSC Conclusion 7/10) The Safety Management Implementation Team (SMIT) was established by the RSC/7 meeting as the main Regional Framework for the provision of assistance to States through Safety Management Assistance Missions (RSC Conclusion 7/11)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
D. 7/7	**ELP AD-HOC ACTION GROUP** That, an ELP Ad-Hoc Action Group composed of the following experts is established to support the implementation of the SEI related to the improvement of the implementation of ELP requirements in the MID Region: Mr. Ibrahim Addasi from UAE (Champion) Mr. Mutasim Aljawharji from Saudi Arabia Mr. Mohammad Hushki from Jordan Ms. Leena Ahmed Al-Kooheji from Bahrain Mr. Mohamed Chakib from ICAO Mr. Mashhor Alblowi from ICAO Mr. Elie El Khoury from ICAO	Effectiveness of the implemented ELP in the MID Region	To support the implementation of the SEI related to the improvement of the implementation of ELP requirements	UAE supported by Saudi Arabia, Jordan, Bahrain, and ICAO	March 2020	**Completed** The ELP Questionnaire was sent to the MID States through State Letter Ref.: ME 4-19/320 dated 21 October 2019 and Reminder State Letter Ref.: ME 4-19/361 2018 dated 24 Nov 2019 was issued. Five (5) States, namely: Egypt, Iraq, Oman, Qatar, and UAE, replied to the Questionnaire. The results of the ELP Questionnaire analysis was reviewed by RSC/7 meeting. (Covered in the MID-RASP)
D. 7/8	**SEI RELATED TO DANGEROUS GOODS** That, the RSC develop a new SEI related to Dangerous Goods.	Identified as a low level of effective implementation	SEI to enhance Dangerous Goods Oversight and related actions	RSC/7	March 2020	**Completed** The RSC/7 meeting agreed to the following SEI "Enhance State Oversight on Dangerous Goods" Actions including: - capacity building of States Inspectors; and - development of guidance materials for the oversight of DG (RASG-MID Safety Advisory, etc.). ACAO/ICAO Dangerous Goods Workshop planned for November 2021. FAA's willingness to support the SEI related to Dangerous Goods. (Covered in the MID-RASP)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 7/9	**ROADMAP FOR AIG REGIONAL COOPERATION** That, the Roadmap for AIG Regional Cooperation be amended as at **Appendix 5.1J.**	States level 2 of implementation	Roadmap for AIG Regional Cooperation	RASG-MID/7	April 2019	**Completed**
D.7/10	**REVISED RASG-MID ORGANIZATIONAL STRUCTURE** That, a) the revised RASG-MID Organizational Structure at Appendix 5.2A is endorsed; and b) the Secretariat consolidate a new Edition of the RASG-MID Procedural Handbook reflecting the revised Organizational Structure and Terms of Reference (ToRs) of the different Groups for presentation to the RSC/7 meeting before the formal endorsement by the RASG-MID/8 meeting.	Effectiveness of the RASG-MID working arrangements	New Handbook with the revised Org. Structure	RASG-MID and ICAO	RASG-MID Feb 2021	**Closed** Replaced and superseded by RASG-MID/8 Decision 8/8
C. 7/11	**SEI ON TEAM RESOURCE MANAGEMENT (TRM) FOR ATM** That Qatar present a Draft SEI/DIP on Team Resource Management (TRM) for further review and consideration.	Human performance effectiveness in aviation	SEI on Team Resource Management	Qatar	Nov 2020	**Closed** Qatar delivered a presentation to the SEIG/1 meeting on the TRM. The meeting agreed to add an Action "Organize Team Resource Management Training workshop to share experience and best practices on TRM practical implementation" under Goal 2: Strengthen States' Safety Oversight Capabilities-SEI: Human factors and Competence of Personnel.

APPENDIX 4.2B

FOLLOW-UP ACTION PLAN ON RSC/7 CONCLUSIONS AND DECISIONS

NO.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 7/1	**DEVELOPMENT AND IMPLEMENTATION OF NATIONAL AVIATION SAFETY PLANS (NASP)** That, States: a- be requested to establish a National Aviation Safety Plan consistent with Global Aviation Safety Plan (GASP), including the global aviation safety roadmap, and the MID Region Safety Strategy; and based on their operational safety needs; b- present a progress report on the development and implementation of their NASP to the SEIG/1 and RASG-MID/8 meetings.	Compliance with Assembly Resolution A40-1	State Letter Progress report	ICAO ICAO	May 2020 September 2020 TBC	**Completed** (Replaced and superseded by RASG-MID/8 Conclusion 8/4)
C 7/2	**DEVELOPMENT OF THE MID REGIONAL AVIATION SAFETY PLAN (RASP)** That, a- the Secretariat, in coordination with the RASG-MID members/focal points, review and amend the MID Region Safety Strategy to upgrade it to a Regional Aviation Safety Plan (RASP) consistent with the GASP 2020-2022; and b- present a Draft Version of the MID Regional Aviation Safety Plan (RASP) to the SEIG/1 meeting in September 2020 for review and further inputs, before presentation to the RASG-MID/8 meeting for endorsement.	Compliance with Assembly Resolution A40-1	Draft RASP	ICAO	16 Nov 20	**Completed** The MID RASP 2020-2022 Edition was endorsed by the RASG-MID/8 meeting Through Conclusion 8/3.

NO.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C 7/3	**8TH ASR** That, the Eighth MID Annual Safety Report at **Appendix 3B** is endorsed.	Sharing the final 8th MID-ASR for the period 2014-2018 with identified Focus Areas and Emerging Risks	MID-ASR 8th Edition published on the ICAO website	RSC/7	March 2020	**Completed**
C 7/4	**SHARING OF SAFETY DATA ANALYSIS** That, States be urged to provide the ICAO MID Office by **31 May 2020** with the number of accidents, serious incidents and incidents, safety data analysis, and their associated safety recommendations related to each occurrence category in **Appendix 3C** for the past 5 years (2015 – 2019) and using the Template in **Appendix 3D.**	Collection of safety data for a Harmonized database	safety data analysis for development of ASR	States	July 2020	**Completed** Addressed by the ASRG/2 Virtual Meeting on 8 July 2020
C 7/5	**SURVEY ON BASIC REGULATORY FRAMEWORK FOR AERODROME CERTIFICATION** That, by May 2020, a Survey on Basic Regulatory Framework for Aerodrome Certification in the MID Region be carried out using the Template at **Appendix 3E.**	Assurance of the establishment of the necessary Regulatory Framework for Aerodromes Certification by States.	Survey on Basic Regulatory Framework for Aerodrome Certification	States	*May 2020* *Revised date: (Due to the Pandemic Crisis the deadline will be extended to the end of January 2021)*	**Closed** SL ME 4/1.8 & AN 5/3-20/017 dated 14 January 2020. *(Replies: Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, S. Arabia, Sudan, Syria & UAE)*

NO.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C 7/6	**AERODROME CERTIFICATION IMPLEMENTATION PROGRESS** That, States provide the ICAO MID Office, by May 2020 with: **a)** the status of implementation of the Basic Regulatory Framework for aerodrome certification using the Table 1 of **Appendix 3E**; and b) their progress/plan for Aerodrome Certification Implementation using the Template at **Appendix 3F**.	Development of a detailed Aerodrome Certification Implementation Progress/Plan	Progress/Plans on the Aerodrome Certification Implementation	States	*May 2020* *Revised date:* *(Due to the Pandemic Crisis the deadline will be extended to the end of January 2021)*	**Closed** SL ME 4/1.8 & AN 5/3-20/017 dated 14 January 2020. *(Replies: Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, S. Arabia, Sudan, Syria & UAE)*
C 7/7	**REGIONAL SEMINAR ON GLOBAL REPORTING FORMAT (GRF)** That, a) a Regional Seminar on Global Reporting Format (GRF) be organized by the ICAO MID Office during the first quarter of 2020; and b) States (CAAs, Airports Operators, ANSPs, Airlines, etc.) and International Organizations are invited to actively participate in this Seminar.	Foster the Implementation of the runway condition assessment new methodology: The Global Reporting Format (GRF) in the MID Region	GRF Regional Seminar	ICAO	Q1 of 2020 (effective date 27 Oct 2020) **(Due to the Pandemic)**	**Completed** SL ME 4/1.8 & AN 5/24-20/015 dated 14 January 2020. **(a Webinar has been conducted on 27 Oct 20)**

NO.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C 7/8	**GLOBAL REPORTING FORMAT (GRF) IMPLEMENTATION AND DEPLOYMENT AT AERODROMES** That, States: a) be requested to report on the implementation of the GRF to the ICAO MID Regional Office by July 2020; and b) be encouraged to organize at National Level Seminars, Workshops, trainings, etc. related to GRF; and c) ensure full deployment of GRF at their airports.	Effective implementation of the GRF methodology and it deployment at the MID Region Airports	Status of the GRF implementation and deployment at Airports	States	July 2020	**Closed** (Replaced and superseded by PIRG/RASG MID Conclusion 2)
C 7/9	**RUNWAY SAFETY TEAM IMPLEMENTATION PLAN** That, States be urged to provide the ICAO MID Office by **May 2020** with a Runway Safety Team Implementation Progress/Plan, using the Template at **Appendix 3G**.	Development of a detailed RSTs Implementation Progress/Plan including the GRF Deployment at Airports	Progress/Plans on RSTs Implementation including the GRF Deployment at Airports	States	*May 2020* *Revised date: (Due to the Pandemic Crisis the deadline will be extended to the end of January 2021)*	**Closed** SL Ref: ME 4/1.8 & AN 5/3-20/018 dated 14 January 2020 (*Replies: Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, S. Arabia, Sudan, Syria & UAE)*
C 7/10	**MID REGION SAFETY MANAGEMENT IMPLEMENTATION ROADMAP** That, the MID Region Safety Management Implementation Roadmap at **Appendix 3I** is endorsed.	Some States facing challenge to implement SSP	Support States and SPs to implement SSP and SMS respectively	ICAO, States, International Organizations	March 20	**Completed**

NO.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C 7/11	**SAFETY MANAGEMENT IMPLEMENTATION TEAM** That, a) the Safety Management Implementation Team (SMIT) is established as the main Regional Framework for the provision of assistance to States through Safety Management Assistance Missions; and b) the ICAO MID Office develop a SMIT handbook for presentation to and endorsement by the RASG-MID/8 meeting.	To support the SSP/SMS implementation in the MID Region through the MID Region Safety Management Implementation Roadmap	ICAO SMIT handbook	ICAO ICAO in coordination with S, States, International Organizations	RSC/8 meeting	**Closed** Egypt, Saudi Arabia, Qatar and UAE, as well as IATA and CANSO will support the SMIT. Due to changing of priorities to focus on COVID-19 issues, the SMIT Handbook is still under development and will be presented to RASG-MID/9 meeting
C 7/12	**SAFETY ENHANCEMENT INITIATIVES (SEIS)** That, a) States be urged to develop and share their SEIs and present them to the SEIG/1 meeting in **September 2020**; and b) the SEIG/1 meeting review: i. the list of current RASG-MID SEIs to ensure full alignment with the 2020-2022 GASP; and ii. States' SEIs to identify the areas of common interests/concerns.	Progress in implementing SEIs	Development of the MID-RASP Draft	ICAO	TBD	**Completed** Addressed by the SEIG/1 Virtual Meeting, 16-18 November 2020

NO.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C 7/13	**AIG REGIONAL COOPERATION MECHANISM ACTION PLAN** That, a) the AIG Regional Cooperation Mechanism (ARCM) Action Plan at **Appendix 3O** is endorsed; and b) an ARCM Technical Coordination meeting be organized by the ICAO MID Office in Cairo, 1-4 June 2020.	Delayed due to changing of priority to focus on COVID-19 issues	ARCM Technical Coordination meeting	ICAO	July 20	**Completed** An ARCM virtual meeting was held and the MENA ARCM MOU was developed and circulated to States
C 7/14	**STATES' REVIEW AND FEEDBACK ON THE TERMS OF REFERENCE (TOR) OF THE RASG-MID AND RSC** That, States review the Draft Terms of Reference (ToR) of the RASG-MID and RSC at **Appendices 5B and 5C**, respectively, and provide comments/feedback to the ICAO MID Office by **November 2020** for the consolidation of the final version to be presented to the RASG-MID/8 meeting for endorsement.	Delayed due to changing of priority to focus on COVID-19 issues	SL	ICAO	Once ToRs are ready	**Completed** Replaced and superseded by RASG-MID/8 Decisions 8/8 and 8/9
D 7/15	**TERMS OF REFERENCE (TOR) OF THE ASRG** That, the Terms of Reference (ToR) of the Annual Safety Report Group (ASRG) are endorsed as at **Appendix 5E.**	TORs	RSC/7	ICAO	March. 20	**Completed**
D 7/16	**TERMS OF REFERENCE (TOR) OF THE ASPIG** That, the Terms of Reference (ToR) of the Aerodromes Safety Planning and Implementation Group (ASPIG) are endorsed as at **Appendix 5F** .	TORs	RSC/7	ICAO	March. 20	**Completed**

NO.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
D 7/17	**FOURTH EDITION OF RASG-MID PROCEDURAL HANDBOOK** That, the ICAO MID Office consolidate the Fourth Edition of the RASG-MID Procedural Handbook for presentation to and endorsement by the RASG-MID/8 meeting.	No face-to face meeting due to COVID-19	Fourth Edition of the RASG-MID Procedural Handbook	ICAO	RASG-MID/8 meeting (Feb 2021)	**Closed** Replaced and superseded by RASG-MID/8 Decision 8/10
C 7/18	**FIFTH MID REGION SAFETY SUMMIT** That, the Fifth MID Region Safety Summit be organized beginning of 2021 with the objective to develop a draft MID RASP for presentation to the RASG-MID/8 meeting for review and endorsement.	No face-to face meeting due to COVID-19	Fifth MID Region Safety Summit	ICAO	TBD	**Closed** The Fifth MID Region Safety Summit planned for Q2-2022 in Saudi Arabia (para. 4.3.12 – 4.3.14, refer).

MID Region Safety Targets

Aspirational Goal: Zero Fatality by 2030

Goal 1: Achieve a Continuous Reduction of Operational Safety Risks

Safety Indicator	Safety Target	Timeline	Links to GASP	MID Average 2015-2019	Global Average 2015-2019	Status MID 2019	Status Global 2019
Number of accidents per million departures	Regional average rate of accidents to be in line with the global average rate (baseline 2016)	2022	*Linked to Goal 1 and Target 1.1 of the GASP*	2.02	2.6	1.5	3
Number of fatal accidents per million departures	Regional average rate of fatal accidents to be in line with the global average rate (baseline 2016)	2022		0.61	0.44	0	0.15
Number of fatalities per million departures	Number of fatalities per billion passengers carried (fatality rate) to be in line with the global average rate (baseline 2018)	2022		TBD	TBD	TBD	TBD
Number of Runway Excursion accidents per million departures	Regional average rate of Runway Excursion accidents to be below the global average rate (baseline 2016)	2022		0.15	0.36 (2017-2019)	0	0.43
Number of Runway Incursion accidents per million departures	Regional average rate of Runway Incursion accidents to be below the global average rate (baseline 2018)	2022		0	0 (2017-2019)	0	0
Number of LOC-I related accidents per million departures	Regional average rate of LOC-I related accidents to be below the global rate (baseline 2016)	2022		0.14	0.08	0	0.05
Number of CFIT related accidents per million departures	Regional average rate of CFIT related accidents to be below the global rate-(baseline 2016)	2022		0	0	0	0
Number of Mid Air Collision (accidents)	Zero Mid Air Collision accident (baseline 2018)	2022		0	0	0	0

Safety Indicator	Safety Target	Timeline	Links to GASP			Status MID
Number of Near Mid Air Collision (serious incidents)	Regional average rate of Near Mid Air Collision (serious incidents per million departures) to be less than **0.1** All States to reduce the rate of Near Mid Air Collision (AIRPROX) within their airspace	2022				TBD

Goal 2: Strengthen States' Safety Oversight Capabilities/Progressively Increase the USOAP-CMA EI Scores/Results

Safety Indicator	Safety Target	Timeline	Links to GASP	Status MID
USOAP-CMA Effective Implementation (EI) results: a. Regional average EI b. Number of States with an overall EI over 60% c. Regional average EI by area d. Regional average EI by CE	a. Regional average EI to be above 70% b. 11 MID States to have at least 60% EI c. Regional average EI for each area to be above 70% d. Regional average EI for each CE to be above 70%	a. 2020-2022 b. 2020-2022 c. 2020-2022 d. 2020-2022	*Linked to Goal 2 and Target 2.1 of the GASP*	a. 75.59 b. 10 States c. 6 areas d. 5 CEs
Number of Significant Safety Concerns (SSC)	a. No Significant Safety Concern (SSC) b. SSC, if identified, to be resolved as a matter of urgency, and in any case within 12 months from its identification	2016		None

Goal 3: Ensure Appropriate Infrastructure is available to Support Safe Operations

Safety Indicator	Safety Target	Timeline		Status MID
Number of certified International Aerodrome as a percentage of all International Aerodromes in the MID Region	75% of the International Aerodromes certified (baseline 2017)	2020-2022	*Linked to Goal 6 and Target 6.1 of the GASP*	67%
Number of established Runway Safety Team (RST) at MID International Aerodromes.	50% of the International Aerodromes having established a RST	2020-2022		57%

Goal 4: Expand the use of Industry Programmes

Safety Indicator	Safety Target	Timeline	Links to GASP	Status MID
Use of the IATA Operational Safety Audit (IOSA), to complement safety oversight activities.	a. Maintain at least 60% of eligible MID airlines to be certified IATA-IOSA at all times. b. All MID States with an EI of at least 60% use the IATA Operational Safety Audit (IOSA) to complement their safety oversight activities (baseline 2018).	a. N/A b. 2020-2022	*Linked to Goal 5 and Target 5.2 of the GASP*	a. 57% (As of Sep 2017) b. 5 out of 10 States (50%)
Use of the IATA Safety Audit for Ground Operations (ISAGO) certification, as a percentage of all Ground Handling service providers	The IATA Ground Handling Manual (IGOM) endorsed as a reference for ground handling safety standards by all MID States. Pursue at least 50% increase in ISAGO registration (baseline 2017).	2020-2022		5 States out of 10 signed ISAGO MOU 50%
Coordinate the ACI Airport Excellence (APEX) in Safety programme	At least 1 ACI APEX in Safety to be conducted in 1 Airport of the Region per year	2021-2022		TBD

Goal 5: Implementation of Effective SSPs and SMSs:

Safety Indicator	Safety Target	Timeline	Links to GASP	Status MID
MID States to implement the foundation of an SSP			*Linked to Goal 3 and Target 3.1 of the GASP*	
Number of States that have completed the SSP Gap Analysis on iSTARS	13 States	2020-2022		9 States
Number of States that have developed an SSP implementation plan	13 States	2020-2022		9 States
Regional Average SSP Foundation (in %)	70%	2020- 2022		76.22%
Number of States that have fully implemented the SSP Foundation	10 States	2020- 2022		1 State
Number of States that have established Safety data collection and processing system (SDCPS)	12 States	2020-2022		TBD
MID States to implement an effective SSP			*Linked to Goal 3 and Target 3.2 of the GASP*	
Number of States that have implemented an effective SSP	7 States	2025		TBD
Number of States that have established a process for acceptance of individual service providers' SMS	2 States	2020-2022		TBD
Number of States that have published a national aviation safety plan	13 States	2025		TBD
Number of States providing information on safety risks, including SSP SPIs, to the RASG-MID	7 States	2020-2022		TBD
Establishment of a Regional mechanism for regional data collection, sharing and analysis	Regional Mechanism established (baseline 2018)	2022		TBD

Goal 6: Increase Collaboration at the Regional Level to Enhance Safety:

Safety Indicator	Safety Target	Timeline	Links to GASP	Status MID
Number of States attending the RASG-MID meetings	At least 12 States from the MID Region (baseline 2019)	2020-2022	*Linked to Goal 4 and Target 4.1 and 4.2 of the GASP*	15 States
Number of States providing required data related to accidents, serious incidents and incidents to the MID-ASRG	All States from the MID Region	2020-2022		9 States
Number of States requiring and actively seeking assistance/support Number of States that received assistance/support through the RASG-MID, MENA RSOO and/or other NCLB mechanisms	All States having an EI below 60% to be member of the MENA RSOO All States having an EI below 60% to have an approved NCLB Plan of Actions for safety (agreed upon with the ICAO MID Office) (baseline 2019) SEI or Technical Assistance Mission/Project implemented for each assistance need identified by the RASG-MID (baseline 2019)	2020-2022 2020-2022		3 States
Number of States, having an EI below 60% in some areas, delegating certain safety oversight functions to the MENA RSOO or other State(s)	Percentage of States, having an EI below 60% in some areas, delegating certain safety oversight functions to the MENA RSOO or other State(s), to be at least **50%**	2022		TBD
Number of States that contribute to the implementation of SEIs and Technical Assistance Missions/Projects	7 States	2020-2022		TBD
Percentage of SEIs implemented in accordance with the agreed timeframe	80% of the SEIs	N/A		

APPENDIX 4.2D

LIST OF OCCURRENCE CATEGORIES TAXONOMY

Scope: State of Occurrence

The data to be collected be based on scheduled commercial operations involving aircraft having a Maximum Take-off Weight (MTOW) above 5700 kg.

Occurrence Category	ADREP/CICTT taxonomy	Remarks
Runway Excursion (RE)	Veer off or overrun off the runway surface.	
Abnormal Runway Contact (ARC)	Any landing or take-off involving abnormal runway or landing surface contact.	
Loss of Control-Inflight (LOC-I)	Loss of Control while, or deviation from intended flight path, in flight.	
Controlled Flight Into Terrain (CFIT)	Inflight collision or near collision with terrain, water, or obstacles without indication of loss of control.	
MID Air Collision (MAC)/ NMACs	Airprox/TCAS Alerts, Loss of separation as well as NMAC or collisions between aircraft inflight.	
Fire/Smoke (F-NI)	Fire or smoke in or on the aircraft, in flight, or on the ground, which is not the result of impact.	
Runway Incursion (RI)	Any occurrence at aerodrome involving the incorrect presence of an aircraft, vehicle, or person on the protected area of a surface designated for landing and takeoff of aircraft.	
System Component Failure –Non-Power Plant (SCF-NP)	Failure or malfunction of an aircraft system or component other than the power plant.	
Turbulence Encounter (TURB)	In-flight turbulence encounter.	
Birdstrike (BIRD)	Occurrences involving collisions/near collisions with bird(s).	
System Component Failure- Power Plant (SCF-PP)	Failure or malfunction of an aircraft system or components related to the power plant.	

Occurrence Category	ADREP/CICTT taxonomy	Remarks
Security related (SEC)	Criminal/Security acts which result in accidents or incidents (per Annex 13 to the Convention on International Civil Aviation).	
Wind shear	Flight into wind shear or thunderstorm	

NB: States may share any other occurrence category or national safety concern.

APPENDIX 4.2E

TEMPLATE FOR THE COLLECTION OF

ACCIDENT, SERIOUS INCIDENT AND INCIDENT DATA AND SAFETY ANALYSIS

Name of State: ……..

1- Occurrences: *The data to be collected be based on scheduled commercial operations involving aircraft having a Maximum Take-off Weight (MTOW) above 5700 kg.*

#	Occurrence Category	2016			2017			2018			2019			2020		
		# Accidents	# Serious incidents	# Incidents	# Accidents	# Serious incidents	# Incidents	# Accidents	# Serious incidents	# Incidents	# Accidents	# Serious incidents	# Incidents	# Accidents	# Serious incidents	# Incidents
1	Runway Excursion (RE)															
2	Abnormal Runway Contact (ARC)															
3	Loss of Control-Inflight (LOC-I)															
4	Controlled Flight Into Terrain (CFIT)															
5	Mid Air collision (MAC)/ NMAC															
6	Fire/Smoke (F-NI)															
7	Runway Incursion-(RI)															
8	System Component Failure-Non-Power Plant (SCF-NP)															
9	Turbulence Encounter (TURB)															

10	BIRD															
12	System Component Failure-Power Plant (SCF-PP)															
13	Wind shear															

States should provide the number of accident, serious incidents, and incidents related to each category mentioned in the template above for the past five years (2016-2020)

Scope: State of Occurrence

2- Safety data Analysis (root-cause analysis, trends, etc.)

3- Main safety risks

4- Safety Recommendations

SAFETY ENHANCEMENT INTIATIVE GROUP (SEIG)

TERMS OF REFERENCE

1. PURPOSE OF THE SEIG TO:

1.1 support the RASG-MID in the development/update of the MID Regional Aviation Safety Plan (MID-RASP) and the monitoring of the implementation of Safety Enhancement Initiatives (SEIs) related to identified safety issues.

1.2 assist in the development, implementation and review of SEIs to reduce aviation safety risks. These SEIs could be established based on the analysis of regional data, based on ICAO initiatives or the initiatives of other relevant organisations or based on the risks and issues identified through the USOAP audits process.

1.3 recommend safety mitigations to the RASG-MID related to identified safety issues which would reduce aviation risks.

1.4 <u>In order to meet its Terms of Reference, the SEIG shall:</u>

a. follow-up the updates of the Global Aviation Safety Plan (GASP) and support the development, update and implementation of the MID Regional Aviation Safety Plan (MID-RASP) at the regional level and provide feedback to the RASG-MID;

b. identify and develop the SEIs, which are aligned with the regional priorities and targets, for implementation within the MID Region. The focus of these SEIs is to effectively and economically mitigate the safety risks identified by the ASRG;

c. identify difficulties, challenges and deficiencies related to the implementation of each SEI and propose mitigation measures;

d. identify assistance programmes such as, but not limited to, workshops, seminars and capacity building activities to improve the level of implementation of the approved SEIs by the RASG-MID;

e. share expertise and experience and provide recommended actions for each SEI, in a prioritized manner based on best practices;

f. monitor the status of achieving related safety objectives and targets included in the MID Region Safety Strategy;

g. identify areas of concern to aviation safety that may be unique to the region, and develop data and mitigations to address those concerns;

h. work closely with States and stakeholders to ensure that SEIs and mitigation measures are implemented through a coordinated effort;

i. propose input to the RASG-MID for the development of the RASG-MID Annual Work Programme; and

j. coordinate with relevant RASG-MID, MIDANPIRG and MID-RASFG subsidiary bodies issues of common interest.

2. COMPOSITION

The SEIG is composed of Members designated by the MID States and Partners.

3. ROLES AND RESPONSIBILITIES

- SEIG Chairpersons: Coordinate SEIG activities and provide overall guidance and leadership;
- ICAO: Support; and
- Partners: collaborate in the development of materials as requested by the SEIG, and provide technical expertise and support, as required.

4. MEETINGS ARRANGEMENTS

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

- Face-to-face meetings will be conducted when it is necessary to do so.

APPENDIX 4.2G

RASG-MID CART IMPLEMENTATION PLAN OF ACTIONS

CART Recommendation	Pillars	Priority	Action	Champion	Indicators If applicable	Timelines Target	Status
Recommendation 1 *During the global COVID-19 outbreak, Member States should continue updating COVID-19 Contingency Related Differences (CCRDs) in the Electronic Filing of Differences (EFOD) subsystem.*	Implementation Support Monitoring and Reporting	High Medium	Provide necessary assistance to States to update the CCRD Analyze States' information posted on the CCRD with respect to the nine Standards contained in Annex 1 and Annex 6	ICAO, RPTF ICAO, RPTF and ASRG	Number of States that completed COVID-19 Contingency Related Differences (CCRDs) in the Electronic Filing of Differences (EFOD) subsystem	31 March 2021	On-going
Recommendation 2 *Member States should avoid retaining any COVID-19 related alleviation measures as soon as normal operations are resumed. Differences that remain after the contingency if any should be filed in the EFOD system.*	Implementation Support	High	Provide necessary assistance to States and monitor the implementation of the Recommendation 2 through the CCRD and CRRIC	ICAO, RPTF and SEIG	Number of States retaining COVID-19 related alleviations after the return to normal operations	After 31 March 2021	On-going

CART Recommendation	Pillars	Priority	Action	Champion	Indicators If applicable	Timelines Target	Status
Recommendation 3 *Member States should expedite the development of guidance for safety management of new operations or operation change during this crisis.*	Implementation Support	Medium	Provide assistance to States, based on identified needs, for the implementation safety management practices related to COVID-19, through the promotion of the guidance contained in ICAO Doc 10144 - Handbook for CAAs on the Management of Aviation Safety Risks, the deployment of the Aviation Safety Risk Management iPack and sharing of best practices.	ICAO, RPTF and SEIG	Number of States that received assistance on safety management of new operations or operation change during the COVID-19 Crisis (including through the deployment of the ASRM iPack)	Continuous	On-going
Recommendation 12 *States should put in place the necessary measures to mitigate risks associated with prolonged regulatory alleviations and should not extend alleviations (both core and extended COVID-19 Contingency Related Differences (CCRDs)) beyond 31 March 2021, unless circumstances dictate otherwise.* *In addition, States are encouraged to facilitate access to medical and training facilities, including flight simulation training devices used for flight crew (national and foreign) to maintain their certifications, recency of experience and proficiency.*	Communication Monitoring and Reporting Implementation Support	Medium Medium	Carry out a survey (questionnaire) in order to identify expiring operational safety alleviations, including undertaking necessary action based on safety assessment (extension of alleviation or resuming normal activities). Provide a Best Practice, mechanism and Guidance	ICAO, RPTF ASRG SEIG ICAO, RPTF and SEIG	Number of States retaining COVID-19 related alleviations after the return to normal operations	After 31 March 2021 Continuous	On-going

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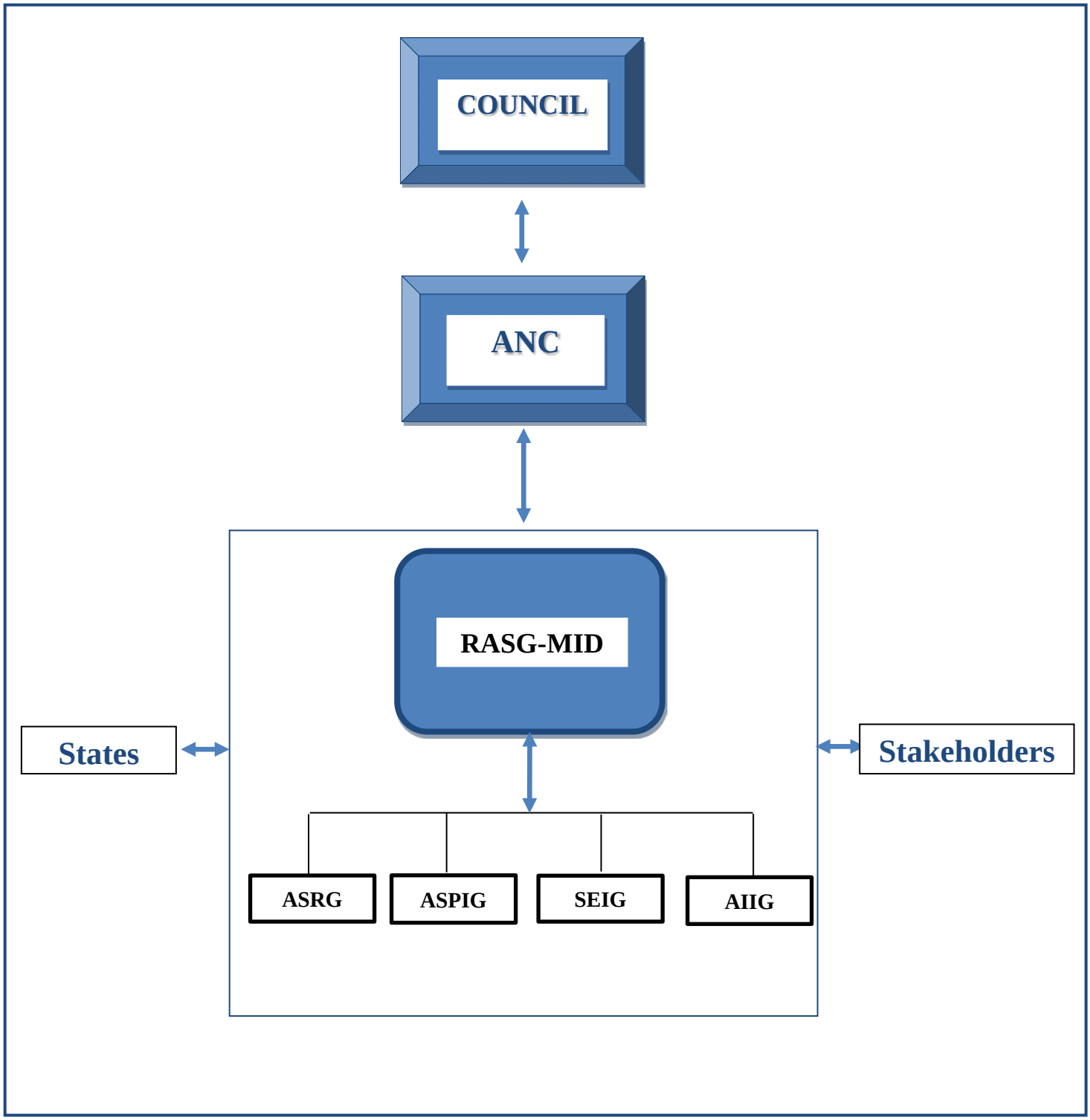
RASG-MID
ORGANIZATIONAL STRUCTURE



LIST OF CHAIRPERSONS AND VICE CHAIRPERSONS OF THE RASG-MID AND GROUPS

RASG-MID	Mr. Ismaeil Mohammed Al Blooshi Chairperson (UAE) *Assistant Director, Aviation Safety Affairs Sector, GCAA*	Elected by the RASG-MID/2 meeting (Abu Dhabi, UAE, 12-14 November 2012). Extended by the RASG-MID/4 (Jeddah, Saudi Arabia, 30 March -1 April 2015) through Decision 4/15, to serve for additional three meetings. RASG-MID/7 meeting (Cairo, Egypt, 15-18 April 2019), agreed that, in order to ensure the necessary continuity in the work of the Group, the Chairperson, the First Vice-Chairperson and Second Vice-Chairperson be renewed for one (1) additional term. It was also agreed that the election of Chairpersons be included in the Agenda of the RASG-MID/8 meeting.
	Mr. Mubarak Saleh Al Gheilani First Vice-Chairperson of the RASG-MID (Oman) *Acting Director General Civil Aviation Regulation, PACA*	Elected by the RASG-MID/8 meeting. The RASG-MID/8 meeting expressed its gratitude to Mr. Abdullah Al Ojaili for his kind support in the capacity of First Vice-Chairperson since the establishment of the RASG-MID.
	Mr. Jehad Faqir Second Vice Chairperson (IATA) *Assistant Director Safety and Flight Operations*	Elected by the RASG-MID/5 meeting (Doha, Qatar, 22-24 May 2016)
RSC	Mr. Mohammad Faisal Al Dossari Chairperson (UAE) *Assistant Director General – Air Accident Investigation*	The RSC/7 (Cairo, Egypt, 3 – 5 March 2020) agreed to elect as a first step, a Chairperson for the RSC, pending the final decision of the RASG-MID with regard to the chairmanship of both the RASG-MID and RSC. Mr. Mohammad Faisal Al Dossari, Assistant Director General-Air Accident Investigation, GCAA, UAE, was elected as the Chairperson of the RSC.
ASRG	Mr. Theeb Abdullah Al Otaibi Chairperson (Saudi Arabia) *Director of Safety Analysis Aviation Investigation Bureau*	Elected by ASRG/1 meeting (Cairo, Egypt, 25-27 November 2019)
	Vice Chairperson - Vacant	Mohamed Salah Abdel Aziz, Safety General Director, Egyptian Civil Aviation Authority (ECAA) is not able to resume this position.
ASPIG	Mr. Mohammed Yousif Mohamed Chairperson (UAE) *Acting Manager Aerodromes Section*	Elected by ASPIG/1 meeting (Cairo, Egypt, 19 – 21 November 2019)
	Mr. Fakhreldin Osman Ahmed Mehadi Vice-Chairperson (Sudan) *Aerodromes Safety and Standards Directorate Director*	Elected by ASPIG/1 meeting (Cairo, Egypt, 19 – 21 November 2019)
SEIG	Dr. Mohammad Hushki Chairperson (Jordan) *Director Quality Assurance and Internal Audit, Jordan Civil Aviation Regulatory Commission (CARC)*	Elected by SEIG/1 meeting held virtually from 16 to 18 November 2020
	Vice Chairperson - Vacant	To be elected by the RASG-MID/8 meeting
AIIG	*Chairperson Vacant*	To be elected by the AIIG/1 meeting planned to be held 22-24 June and hosted by UAE in Dubai

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TERMS OF REFERENCE OF RASG-MID

1. MEMBERSHIP

1.1 All ICAO Contracting States recognized by ICAO, within the area of accreditation of the ICAO MID Regional Office shall be members of the RASG-MID.

2. PARTICIPATION

2.1 In addition to States, the importance of a collaborative and proactive role by airspace users, international and regional organizations, and industry should be recognized due to their involvement in the rapid pace of technological development, expertise and other opportunities for sharing of resources.

2.2 RASG-MID meetings are open to all members. Each State member should be represented by a senior-level delegate nominated by the State, preferably from the civil aviation authority (CAA) in order to support related policy-making within the State. A delegate may be supported by an alternate delegate and/or advisers with the requisite technical knowledge in the subject matters under consideration.

2.3 The CAAs should be supported by representatives from service providers and industry.

2.4 States located outside the area of accreditation of the ICAO MID Regional Office can be invited on a case-by-case basis and in accordance with the *Regional Office Manual* to attend as observers.

2.5 International organizations recognized by the ICAO Council to participate in ICAO meetings should participate, as observers, in the RASG-MID meetings, and be encouraged to do so. Other stakeholders may be invited as observers, when required, to contribute to the work of the RASG-MID.

2.6 The participation of industry stakeholders should take into account relevant capabilities such as an involvement in the rapid pace of technological development, specific knowledge and expertise, and other opportunities including sharing of resources.

2.7 Civil aviation commissions/conferences, in particular the Arab Civil Aviation Organization (ACAO), may be invited to participate in the work of the RASG-MID.

2.8 The members and observers will serve as partners in RASG-MID, and their joint commitment is fundamental for success in improving safety worldwide.

2.9 RASG-MID meetings should be live-streamed, to the extent possible, to enable additional State participants to follow the proceedings.

3. WORKING ARRANGEMENTS

3.1 Structure

3.1.1 RASG-MID has the obligation to apply the most effective and efficient organizational structure and meeting modalities that best suit the characteristics of the region's implementation work programme while maintaining to the extent possible, alignment with these Terms of Reference, the MID regional work programme and the Global Aviation Safety Plan (GASP).

3.1.2 The ICAO MID Regional Director will serve as the Secretary of the RASG-MID.

3.1.3 The organization of the RASG-MID should address global and region-specific safety-related matters, and meetings should be closely coordinated between the RASG-MID and MIDANPIRG chairpersons and the Secretariat. RASG-MID and MIDANPIRG meetings should be held back-to-back or combined to facilitate coordination and to ensure the efficient use of resources.

3.1.4 The RASG-MID shall be administered by a chairperson and first vice-chairperson elected from the State-nominated delegates present and second vice-chairperson be elected from the international and regional organizations, and/or industry present. The RASG-MID will establish the cycle of elections.

3.1.5 The RASG-MID will build on the work already done by States, ICAO MID Regional Office and existing regional and sub-regional organizations (such as the cooperative development of operational safety and continuing airworthiness programmes, regional safety oversight organizations (RSOO), regional accident and incident investigation organizations (RAIOs) and industry) to support the establishment and operation of safety management processes for the MID Region.

3.1.6 RASG-MID contributory bodies may be created by the RASG-MID to discharge the RASG-MID work programme by working on defined subjects requiring detailed technical expertise. A contributory body shall only be formed when it has been clearly established that it is able to make a substantial contribution to the required work. A contributory body will be dissolved by the RASG-MID when it has completed its assigned tasks or if the tasks cannot be usefully continued.

3.1.7 Invitations to RASG-MID meetings must be issued at least three months in advance of the meeting to assist States to plan participation.

3.1.8 The Secretariat will review and update the RASG-MID Procedural Handbook periodically, and as required, to ensure a result-oriented approach.

3.1.9 Where the meeting is held in more than one ICAO working language, interpretation services shall be made available to facilitate participation in the deliberations and adoption of the report by all participants.

3.1.10 States, international organizations and industry are invited to submit working papers, research works, etc. in order to enhance the work of the RASG-MID and its contributory bodies. To ensure proper time for consideration and good decision-making, the Secretary should ensure that all working papers are available at least fourteen days prior to the start of the meeting for consideration.

3.1.11 The frequency of the RASG-MID meetings will be on an annual basis.

3.2 **Venue**

3.2.1 RASG-MID meetings will be convened in the MID Regional Office, to the extent possible, to facilitate proper access by States. Approval to host RASG-MID meetings outside of the MID Regional Office must be obtained from the President of the Council.

3.2.2 The Secretary General will ensure the allocation of the necessary financial resources to host RASG-MID meetings.

3.2.3 RASG-MID contributory bodies may be convened at a different location, if required, to be determined by the Secretary and Chairperson of the RASG-MID, and contributory body. Venues shall be chosen with the primary aim of facilitating maximum State attendance.

3.3 **State role**

3.3.1 State CAAs, supported by service providers as necessary, should participate in the work of the RASG-MID and its contributory bodies to:

a) ensure the continuous and coherent development and implementation of regional safety plans (MID-RASP) and report back on the key performance indicators (KPIs);

b) support the regional work programme with participation from the decision-making authority with the technical expertise necessary for the planning and implementation mechanism, thus supporting policy decisions at the State level;

c) support the implementation of effective safety management and collaborative decision-making processes to mitigate aviation safety risks, thus supporting policy decisions at the State level;

d) contribute information on safety risk, including State safety programme (SSP) safety performance indicators (SPIs, in accordance with the GASP as part of their safety risk management activities);

e) ensure coordination, at the national level, between the CAA, service providers and all other concerned stakeholders, and harmonization of the national plans with the regional and global plans;

f) facilitate the development and establishment of Letters of Agreement and bilateral or multilateral agreements;

g) ensure the implementation of the GASP goals and targets; and

h) embrace a performance-based approach for implementation as highlighted in the Global Plans.

3.4 International organization and industry role

3.4.1 Industry stakeholders/partners should participate in the work of the RASG-MID and its contributory bodies in order to support the implementation of safety oversight activities, safety management and collaborative decision-making processes, as well as to identify regional requirements, mitigate aviation safety risks, provide technical expertise, as required, and ensure adequate resources.

3.4.2 Their focus should be on identifying regional requirements and ensuring that their available resources are adequately allocated.

3.5 Reporting

3.5.1 The RASG-MID reports outcomes to the ICAO Council through the Air Navigation Commission (ANC) as facilitated by the ICAO Secretariat.

3.5.2 RASG-MID meeting reports should reflect the structure of the GASP (organizational challenges, operational safety risks, infrastructure and safety performance measurement) and RASG-MID deliverables should map the expected GASP goals and targets.

3.5.3 RASG-MID meeting reports should be provided in a standardized format to the governing bodies of ICAO to identify regional and emerging challenges, and shall include as a minimum:

a) a brief history of the meeting (duration and agenda);

b) a list of meeting participants, affiliation and number of attendees;

c) a list of conclusions and decisions with a description of their rationale (what, when, why and how);

d) a list of safety enhancement initiatives (SEIs) linked to the associated GASP targets and indicators, and the appropriate mechanism used to measure their effectiveness;

e) common implementation challenges identified amongst RASG-MID members and possible solutions, assistance required and estimated timelines to resolve, if applicable, by sub-region;

f) identification of and recommendations on particular actions or enhancements that would require consideration by the ANC and Council to address particular challenges;

g) a list of issues cross-referenced to actions to be taken by ICAO Headquarters and/or Regional Offices;

h) based on the GASP, and associated SPIs and tools, report to the extent possible on the status of implementation of safety goals, targets and indicators, including the priorities set by the region in the MID regional safety plan (MID-RASP) exploring the use of regional dashboards to facilitate monitoring regional progress being made;

i) a list of items for coordination with the MIDANPIRG and a concise summary of the outcome of related discussions;

j) feedback on implementation issues and actionable recommendations to the ICAO Council to continually improve future editions of the GASP that identify regional safety objectives and priorities to ensure proper focus on emerging safety concerns; and

k) the work programme and future actions to be taken by the RASG-MID.

3.5.4 A technical officer from Headquarters (Air Navigation Bureau) will participate and provide support to the meeting and subsequently arrange for the presentation of reports, in coordination with the MID Regional Office and chairpersons of the RASG-MID, to the ANC and Council for review and harmonization.

3.5.5 The Draft RASG-MID report will be approved at the end of the meeting.

3.5.6 Headquarters will provide feedback to the RASG-MID highlighting the actions taken by the ANC and Council related to their previous meeting outcomes.

3.5.7 The RASG-MID will report to Council on an annual basis through the consolidated report on PIRGs and RASGs.

4. GLOBAL PLANS

4.1 In regard to Global Plans, the RASG-MID shall:

a) support implementation by States of the *Global Aviation Safety Plan* (GASP, Doc 10004) taking into account aspects of the *Global Air Navigation Plan* (GANP, Doc 9750) and Global Aviation Security Plan (GASeP) by ensuring effective coordination and cooperation between all States and stakeholders;

b) monitor and report the progress on the implementation by States of the GASP and the regional objectives and priorities;

c) provide feedback on the GASP implementation and propose amendments to the Global Plans as necessary to keep pace with the latest developments and ensure harmonization with regional and national plans;

d) in line with the GASP and regional priorities, identify specific aviation safety risks and propose mitigating actions using the mechanisms defined by Annex 19 — *Safety Management* and the *Safety Management Manual* (Doc 9859), with timelines to resolve deficiencies; and

e) verify the provision of services in accordance with global and regional requirements.

5. REGIONAL ACTIVITIES

5.1 In regard to regional activities, the RASG-MID shall:

a) serve as a regional cooperative forum that determines regional priorities, develops and maintains the regional aviation safety plan and associated work programme based on the GASP and relevant ICAO Provisions, integrating global, regional, sub-regional, national and industry efforts in continuing to enhance aviation safety worldwide;

b) facilitate the development and implementation of safety risk mitigation action plans by States, taking into consideration States' level of effective implementation of the critical elements of safety oversight systems and progress being made to improve the level;

c) monitor and report, using a data driven approach, the region's main aviation safety risks, and determine regional priorities and associated work programme based on the GASP;

d) analyze safety information and hazards to civil aviation at the regional level and review the action plans developed within the region to address identified hazards;

e) identify and report on regional and emerging safety challenges experienced that affect implementation of ICAO global provisions by States and measures undertaken or recommended to effectively address them; and

f) facilitate the development and implementation of regional and national aviation safety plans by States.

6. RASG-MID COORDINATION

6.1 In regard to coordination, the RASG-MID shall:

a) coordinate safety issues with MIDANPIRG;

b) foster cooperation, information exchange, sharing of experiences and best practices among States and stakeholders;

c) provide a platform for regional coordination and cooperation amongst States and stakeholders for the continuous improvement of safety in the region with due consideration to harmonization of developments and deployments, and intra- and interregional coordination;

d) ensure that all safety activities at the regional and sub-regional level are properly coordinated amongst role players to avoid duplication of efforts;

e) identify security, environmental and economic issues that may affect aviation safety, and inform ICAO MID Secretariat accordingly for action;

f) identify practical examples and tools to support effective safety management implementation; and

g) through the RASG-MID Secretary, inform the Directors General of Civil Aviation and related civil aviation commission/conferences of RASG-MID meeting results.

7. INTERREGIONAL COORDINATION

7.1 The RASG-MID shall:

a) ensure interregional coordination through formal and informal mechanisms, including the participation in meetings established for the purpose of coordinating RASG-MID and MIDANPIRG activities, the GASP and MID regional aviation safety plans (MID-RASP); and

b) identify stakeholders that could be impacted by RASG-MID SEIs within and outside the region, and develop an effective communication and coordination strategy with stakeholders.

7.2 ICAO Headquarters shall arrange a global coordination meeting between all RASG and PIRG chairpersons and secretaries on a biennial basis.

8. EXPANSION OF TERMS OF REFERENCE

8.1 The Terms of Reference above serve as a global basis for RASG operations and may be further expanded by the RASG-MID, as required, to maintain the flexibility and efficiency of its work. Additional terms of reference adopted by the RASG-MID must be approved by the President of the Council and be included in the RASG-MID Procedural Handbook.

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APPENDIX 5.1A

MIDANPIRG CART IMPLEMENTATION "PLANS OF ACTIONS"

Key activity	Action	Pillars	Priority	Champion	Indicators If applicable	Timelines Target	Status
Air Navigation Services Business Continuity & Recovery	Provide the necessary support and assistance to concerned States (AIM, ATM, CNS, MET and SAR) to ensure the continuity of service during COVID-19 crisis and recovery phases.	Implementation Support	High	AIM SG ATM SG MET SG CNS SG	Percentage of continued provision of ANS services within the MID region	Continuous	Monitor the States BCPs to ensure continuous availability of ANS and related services and report to DGCA-MID and MIDANPIRG
ATFM Operational Flexibility	Coordinate with States to alleviate non required ATFM restrictions during current, restart and recovery phases.	Communication and Implementation Support	High	ATFM TF ATM SG	Number of States that apply ATFM restrictions alleviations	September 2020	Airlines are providing operational issues to IATA AME to be addressed with the concerned state, if required via the ATFM TF
Aeronautical Information Management	Monitor the implementation of the standardized COVID-19 related NOTAM templates and related Aeronautical information publications and report to DGCA-MID and MIDANPIRG, as appropriate.	Monitoring and Reporting	High	AIM SG	Number of States implemented the NOTAM template	Continuous	On daily bases, monitor and update NOTAMs summaries on ICAO MID webpage with the measures and publications by all MID States.
Regional Network Operations Recovery	Coordinate with States to provide support to ensure measures are in place to handle the growth of traffic during the recovery phase. Exchange information about intention to operate and Airspaces/Aerodromes operational status, between Air Operators and States/ANSPs up to normal situation.	Communication	High	ATFM TF ATM SG	Platform of sharing/exchange of the operational data	Continuous	IATA is providing ITO Data to ICAO MID on a periodic basis. ICAO MID established a secure Platform for data sharing. States nominate FPs to gain access.

Key activity	Action	Pillars	Priority	Champion	Indicators If applicable	Timelines Target	Status
Overflight Permissions	Monitor the regional implementation of the relief and facilitation of overflight permissions for non-scheduled flights in response to the SL: AN 8/0 & ME 6-20/144 (12 July 2020) and report to the DGCA-MID and MIDANPIRG, as appropriate.	Monitoring and Reporting	Medium	ACAO	Percentage of timely issuance of OVFC permissions	Continuous	Communication with States to encourage them adopting standardized process to facilitate the OVFPs for non-scheduled flights, monitor the status of implementation and report to DGCA-MID and MIDANPIRG

APPENDIX 5.2A

FOLLOW-UP ACTION PLAN ON MIDANPIRG/17 CONCLUSIONS & DECISIONS

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 17/ 1	**MID REGION AIM DATABASE (MIDAD)** That: a) the status of individual migration by MID States to EAD (MIDAD Project Phase A) be monitored by the AIM Sub-Group; and b) the development of a detailed action plan for the implementation of the MIDAD Project Phase B (set-up of MIDAD Manager) be initiated when at least 7 States complete their migration to EAD.	Stepwise approach for the implementation of Regional/Sub-Regional AIM Database	Status of migration to EAD Action Plan for set-up of MIDAD Manager	AIM SG MIDAD TF	Continuous TBD	**Closed** Jordan migrated to EAD and Iraq, Kuwait, Lebanon, Oman, Qatar and UAE have plan to migrate to EAD. (Replaced and superseded by MIDANPIRG Conc. 18/18)
C. 17/2	**ANALYSIS OF LHDS** That, as part of the MIDRMA Scrutiny Group activities, the MIDRMA conduct bilateral teleconferences with the MIDRMA ATC focal points to analyze the relevant LHDs and present a consolidated report to the MIDRMA Board or the ATM SG meetings for validation in order to finalize the SMR for endorsement by MIDANPIRG.	To Facilitate the analysis and validation of LHDs	New means to analysis LHDs	MIDANPIRG/17	Apr. 2019	**Completed**
C.17/3	**PROCEDURE FOR THE FOLLOW-UP WITH STATES AND THE ISSUANCE OF WARNING RELATED TO RVSM APPROVED AIRCRAFT WITHOUT VALID HEIGHT-KEEPING PERFORMANCE MONITORING RESULTS** That, the Procedure at **Appendix 4C** for the follow-up with States and the issuance of warning related to RVSM approved aircraft without valid height-keeping performance monitoring results, is endorsed composed of members designated by Bahrain, Iran, Oman, Saudi Arabia, UAE, IATA and ICAO.	Aircraft without valid height-keeping performance monitoring results	Procedure for follow-up on issuance of warning	MIDANPIRG/17	Apr. 2019	**Completed**

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 17/4	**MID RVSM SAFETY MONITORING REPORT CYCLE** That, starting from 2018, the MID RVSM Safety Monitoring Report should be issued on annual basis (12 months) to facilitate tracking the risk trend of RVSM implementation in the MID Region.	Change the SMR Cycle	Change the SMR Cycle to one year	MIDANPIRG	Apr. 2019	**Completed**
C. 17/5	**MID RVSM SMR 2019** That, a) the FPL/traffic data for the period **1 – 31 August 2019** be used for the development of the MID RVSM Safety Monitoring Report (SMR 2019); 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 2019 be ready for presentation to and endorsement by MIDANPIRG/18 or ATM SG/6 meetings.	To develop the MID SMR 2019	State Letter Traffic Data MID SMR 2019	ICAO States MIDRMA	Aug 2019 30 Sep. 2019 Feb 2021	**Completed** (Replaced and superseded by MIDANPIRG Conc. 18/4)
C. 17/6	**RVSM MINIMUM MONITORING REQUIREMENTS AND CONDITIONS** That, the MIDRMA Member States be urged to: a) take necessary measures to ensure their aircraft operators fully comply with ICAO Annex 6 provisions related to long-term height monitoring requirements, based on the MMR Tables; b) comply with the MID RVSM MMR Conditions published in the MIDRMA website; and c) withdraw the RVSM Approvals of aircraft not complying with the State MMR before 1 July 2019.	States to comply with Anne 6 6 provisions related to long-term height monitoring requirements	State Letter	ICAO	Jul. 2019	**Closed** SL AN 6/5.10.15A-19/199 dated 1 July 2019 (Bahrain)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 17/7	**MIDRMA BULLETIN OF NON-RVSM APPROVED AIRCRAFT** That, a) the MIDRMA post on the MIDRMA website and share with the MIDRMA Board Members and focal points the Bulletin of non-RVSM approved aircraft on monthly basis; and b) States be encouraged to: i. develop a mechanism to identify the non-RVSM approved aircraft operating in the RVSM Airspace without compliance with Annex 6 provisions; ii. submit their RVSM traffic data including aircraft registrations to be used for the RVSM risk analysis; and iii. coordinate with the MIDRMA in case they are able to provide their RVSM traffic data on a monthly basis.	To identify the non-RVSM approved aircraft operating in the RVSM Airspace without compliance with Annex 6 provisions and that the MIDRMA to share the Bulletin of non-RVSM approved aircraft on monthly basis	State Letter	ICAO	Jul 2019	**Closed** SL AN 6/5.10.15A-19/199 dated 1 July 2019
C. 17/8	**MID RVSM SAFETY MONITORING REPORT (SMR) 2017** That, the MID RVSM Safety Monitoring Report (SMR) 2017 is endorsed.	MID SMR 2017	Endorsement of MID SMR 2017	MIDANPIRG	Apr. 2019	**Completed**
C. 17/9	**THIRD EDITION OF THE MID REGION AIR NAVIGATION REPORT (2018)** That, the Third Edition of the MID Region Air Navigation Report (2018) is endorsed and be posted by the ICAO MID Office on the website.	Monitoring and Reporting of ASBU implementation in the MID Region	MID AN Report	MIDANPIRG/17	Apr. 2019	**Completed**

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 17/10	**MID REGION AIR NAVIGATION REPORT (2019)** That, a) States be urged to provide the ICAO MID Office, with relevant data necessary for the development of the Fourth Edition of the MID Region Air Navigation Report (2019), by 1 December 2019; and b) the MID Region Air Navigation Report (2019) be presented to the MSG/7 for endorsement.	Monitoring and Reporting of ASBU implementation in the MID Region	State Letter Air Navigation Report (2019)	ICAO States MSG/7	Dec. 2019 Sept 2020	**Completed** The MID Region Air Navigation Report – 2019 is endorsed and posted on the ICAO MID Website. (MSG/7 Conc. 7/7, refers).
C. 17/11	**JOINT ACAO/ICAO ASBU SYMPOSIUM** That, a Joint ACAO/ICAO ASBU Symposium be organized beginning of 2020.	Raise awareness about the 6th Edition of the GANP and align the MID AN Strategy	Draft Revised MID AN Strategy			**Completed** . First MID ASBU webinar conducted 13-15 Oct. 2020 Second MID ASBU Webinar conducted 19-20 Jan. 2021
C. 17/12	**PUBLICATION OF FIR BOUNDARY POINTS** That, States be urged to: a) take into consideration the Guidelines at **Appendix 6.2B** for the description of their FIR boundaries; b) review the Table ATM I-1 MID Region Flight Information Regions (FIRs)/Upper Information Regions (UIRs) at **Appendix 6.2C** and coordinate with neighboring States, as appropriate, the definition of common boundaries; and c) provide the ICAO MID Regional Office with their updates and comments before **15 August 2019.**	To populate the MID ANP Table ATM I-1	State Letter Feedback from States	ICAO States	Jul 2019 Aug 2019	**Actioned** SL AN 6/10-19/206 dated 2 July 2019 (para. 5.2.19 – 5.2.22, refer)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 17/13	**AMENDMENT TO THE MID eANP VOLUME III** That, the amendment to the MID eANP Volume III at **Appendix 6.2D** is approved.	To amend/update the MID eANP Vol III	Amendment	MIDANPIRG/17	Apr. 2019	**Completed**
C. 17/14	**INTERREGIONAL WORKSHOP/SEMINAR ON AIM/SWIM** That, an Interregional Workshop/Seminar on AIM/SWIM be organized in 2020-2021.	To review the latest developments related to AIM/SWIM	Workshop/ Seminar		2020-2021	**Ongoing** Planned for 2022
C. 17/15	**ICAO ROADMAP FOR THE TRANSITION FROM AIS TO AIM** That, ICAO consider the review/reshuffling of the Roadmap for the transition from AIS to AIM to keep pace with the developments.	Roadmap outdated	New Roadmap	ICAO HQ	TBD	**Ongoing**
C. 17/16	**MID REGION AIM IMPLEMENTATION ROADMAP** That, the MID Region AIM Implementation Roadmap at **Appendix 6.2E** is endorsed.	Planning for AIM implementation in the MID Region	MID Region AIM Implementation Roadmap	MIDANPIRG/17	Apr. 2020	**Completed** (Replaced and superseded by MIDANPIRG Conc. 18/19)
D. 17/17	**ESTABLISHMENT OF THE DIGITAL DATASETS IMPLEMENTATION AD-HOC WORKING GROUP (DDI AD-HOC WG)** That, the Digital Datasets Ad-hoc Working Group be: a) established to: - address the challenges associated with the implementation of digital datasets; - propose Regional Implementation Plan for Digital Datasets; and - review/update the MID Doc 008; and	Development of a Regional Implementation Plan for Digital Datasets	Regional Digital Datasets Implementation Plan	MIDANPIRG/17	Apr. 2020	**Completed** (Replaced and superseded by MIDANPIRG Dec. 18/17)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
	b) composed of: - Abdulla Hasan AlQadhi (Bahrain) - Moataz Abdel Aziz Ahmed (Egypt) - Rouhalah Salehi (Iran) - Mohammad Hussien Al Anezi (Kuwait) - Bassem Ali Nasser (Lebanon) - Mazen Mohammed Alshihri (Saudi Arabia) - Sorin Dan. Onitiu (UAE, Rapporteur) - Marek Franko (NG Aviation): and - ICAO MID Office					
C. 17/18	**MID RDWG AND MID REGION ATS ROUTE CATALOGUE** That, States be urged to: a) use the MID Route Development Working Group (MID RDWG) as the main platform to facilitate bilateral and multilateral coordination related to the improvement of the ATS Route Network and airspace management in the MID Region; and b) review the MID Region ATS Route Catalogue and take actions related to the implementation of the ATS proposals relevant to their FIRs.	To use the RDWG as a platform for ATS route improvements	State Letter	ICAO	Jul 2019	**Actioned/Ongoing** SL AN 6/5.8-19/205 dated 2 July 2019
C. 17/19	**SAFETY ASSESSMENTS DUE TO CONTINGENCY WITH IMPACT ON ATS ROUTE NETWORK** That**,** a) Bahrain, Iran, Oman, Qatar and UAE be urged to provide the outcomes of their safety assessment of the contingency routes and/or changes to the ATS Routes Network to the ICAO MID Office by **15 June 2019**, as well as the relevant data for the analysis of the disruption and its impact to the network;		State Letter	ICAO	Jul 2019	**Actioned/ongoing** SL AN 6/1.2.1-19/200 dated 2 Jul 2019

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
	b) the ATM SG/5, with the MIDRMA support, carry out analyses of the data/inputs received form States to identify the challenges and agree on necessary measures to mitigate any safety risk; and c) conduct a lessons-learned session during the ATM SG/5 meeting with the participation of affected stakeholders reviewing the impact of the disruption to the network, allowing all stakeholders to present their views and feedback.					
C. 17/20	**ENHANCED FRAMEWORK FOR THE MID CCT** That, a) States intending to restrict traffic or close all or part of their airspace be urged to consider adequate time before affecting the required change to minimize traffic disruption; b) States, under the framework of the CCT, in coordination with airspace users, agree on interim guidance with a progressive set of flow measures to address the current Air Traffic Flow disruption caused by the closure of Pakistan airspace; and c) the ATM SG/5: i. develop guidelines on how extended disruptions in the network are to be managed in a balanced manner; and ii. enhance the notification and coordination process of contingency operations in the frame of the MID CCT, particularly for: - consistency of interrelated contingency information promulgated by more than one State; and - agreement on recovery plan for each contingency situation.	To enhance the CCT framework	Interim guidance	ATM SG	Dec 2019	**Ongoing** This will be part of the work of the MID ATM Contingency Plan Action Group

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 17/21	**MID REGION GUIDANCE MATERIAL ON CIVIL/MILITARY COOPERATION AND IMPLEMENTATION OF FUA CONCEPT** That, the ATM SG/5 develop draft guidance material related to Civil/Military Cooperation and implementation of FUA Concept, including State aircraft operations under Due Regard in particular over the high seas, to be coordinated with States before presentation to MIDANPIRG for endorsement.	Guidance material for CIV/MIL Cooperation, FUA and due regard over high seas	Guidance material	ATM SG/5	Dec 2019	**Closed** (Replaced and superseded by MIDANPIRG Dec. 18/31)
C. 17/22	**MULTI-NODAL ATFM SOLUTION FOR THE MID REGION** That, a) the Multi-Nodal Concept be implemented in the MID Region, as a first phase, which would be evolved to a centralized ATFM system in the future; and b) the ATFM Task Force develop the ATFM Concept of Operations for MID Region, accordingly, including the minimum flight data that should be exchanged by ATFM Units.	ATFM Multi-Nodal Concept	ATFM Multi-Nodal Concept	MIDANPIRG	Apr. 2019	**Completed** ATFM CONOPS endorsed by MIDANPIRG/18 (Conc. 18/28, refers)
C. 17/23	**ACTION PLAN FOR THE IMPLEMENTATION OF ATFM IN THE MID REGION** That, a) the Action Plan for the implementation of ATFM in the MID Region at Appendix 6.2J is endorsed; and b) States and Stakeholders to support the work of the ATFM Task Force and implement the actions relevant to them.	The Action Plan for the implementation of ATFM	the Action Plan for the implementation of ATFM	MIDANPIRG	Apr. 2019	**Completed** MIDANPIRG/18 reviewed and updated the action plan

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 17/24	**ASSESSMENT OF THE MID REGION RVSM AIRSPACE STRUCTURE BASED ON THE EXPECTED TRAFFIC MOVEMENT FROM 1 NOVEMBER TO 31 DECEMBER 2022** That, the MIDRMA assess the MID Region RVSM airspace structure based on the expected traffic movement during FWC2022 to identify peak periods, Hotspots, Bottlenecks, etc. based on the FPL/traffic data provided by Qatar.	To assess the impact of the forecast increase of traffic due to FWC2022	Assessment	Qatar MIDRMA	May 2019 Aug 2019	**Closed** (Replaced and superseded by MIDANPIRG Conclusion 18/30
C. 17/25	**AMENDMENT OF THE MID REGION HIGH LEVEL AIRSPACE CONCEPT (MID DOC 004)** That, the ATM SG/5 review and prepare a revised version of the MID Region High level Airspace Concept (MID Doc 004) taking into consideration the latest developments, in particular the outcome of MSG/6 and MIDANPIRG/16 and 17 meetings, for presentation to MIDANPIRG/18.	Revised version of the MID Region High level Airspace Concept	Draft Revised version of the MID Region High level Airspace Concept	ATM SG/5	Dec 2019	**Closed** (Replaced and superseded by MIDANPIRG Conc. 18/32)
C. 17/26	**SITA INTEGRATION IN THE MID REGION** That, in order ensure seamless and efficient messages exchange within the MID Region and with other ICAO Regions, States are urged to complete SITA Type X Integration by **25 April 2019.**	To ensure seamless messages flow between AMHS and SITA Networks	Implement necessary network settings to integrate SITA gateway	States	25 April 2019	**Completed** Transition successfully completed
C. 17/27	**KHARTOUM COM CENTRE** That, in order to establish a third Gateway to the AFI Region, Khartoum COM Centre be changed to a main Centre.	To Improve the inter-regional ATS Messages flow	Khartoum COM Centre be changed to a main centre	Sudan/ICAO	2020	**Completed** (Replaced and superseded by MIDANPIRG Conc. 18/14)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 17/28	**PFA TO THE MID ANP VOLUME II-CNS** That, a Proposal for Amendment to the MID ANP Volume II – Table CNS II-1 related to the Aeronautical Fixed Telecommunication Network Plan as at **Appendix 6.2R** be processed in accordance with the standard procedure, by **1 July 2019**	To Improve the availability and reliability of the ATS Messages networks	AMHS Mandated in the MID Region	ICAO	Sep. 2020	**Completed** (Replaced and superseded by MIDANPIRG Conc. 18/14)
C. 17/29	**AFTN/CIDIN/AMHS ROUTING TABLES** That, in order to eliminate the messages loop problem within the MID Region: a) States be urged to keep the AFTN/CIDIN/AMHS Routing Tables; and b) ICAO publish the updated version of the Routing Table for AFTN/CIDIN/AMHS in the MID Region by 1 July 2019.	To improve ATS messages routing mechanism in the MID Region	Updated version of the routing tables	MIDAMC	Sept 2020	**Completed** AFTN/CIDIN/AMHS Routing Directory endorsed (MIDANPIRG Conc. 18/36, refers)
C. 17/30	**UPDATE OF THE GUIDANCE FOR AIDC/OLDI IMPLEMENTATION IN THE MID REGION (MID DOC 006)** That, the ICAO MID Doc 006 - Guidance for AIDC/OLDI Implementation in the MID Region, Edition April 2019 is endorsed and be posted by the ICAO MID Office on the website.	To provide updated guidance material to States on AIDC/OLDI implementation	Updated MID Doc 006 and post it on the ICAO MID website	MIDANPIRG/17	May 2019	**Completed**
D. 17/31	**TERMS OF REFERENCE OF THE CNS SG** That, the Terms of Reference of the CNS SG be updated as at **Appendix 6.2S.**			MIDANPIRG/17	Apr. 2019	**Completed** (New ToR endorsed by MIDANPIRG/18; Dec. 18/55, refers)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
D. 17/32	**TERMS OF REFERENCE OF THE MIDAMC STG** That, the Terms of Reference and Work Programme of the MIDAMC STG be updated as at Appendix 6.2T.			MIDANPIRG/17	Apr. 2019	**Completed** (New ToR endorsed by MIDANPIRG/18, Dec. 18/38, refers)
D. 17/33	**FREQUENCY MANAGEMENT AD-HOC WORKING GROUP** That, the Frequency Management Ad-hoc Working Group be established with Terms of Reference as at Appendix 6.2U.			MIDANPIRG/17	Apr. 2019	**Completed**
C. 17/34	**PFA TO THE MID ANP VOLUME II- CNS SPECIFIC REGIONAL REQUIREMENTS** That, a Proposal for Amendment to the MID ANP Volume II – CNS Specific Regional Requirements be processed in accordance with the standard procedure to add the following requirement: "States should ensure that all Mode S Radars support SI/II code operation".	To eliminate IC code conflicts in the MID Region	PfA to MID ANP VOL II	CNS SG	2020	**Completed** (Replaced and superseded by MIDANPIRG Conc. 18/14)
C. 17/35	**MID REGION PROCESS FOR MODE S IC CODES ALLOCATION** That, the Eurocontrol Document "Requirements process for the coordinated allocation and use of Mode S Interrogator Codes in the ICAO Middle East Region" (Edition 1.03 dated March 2019) is endorsed and be posted on the ICAO MID website, in order to be used for the allocation of Mode S IC Codes in the MID Region.			MIDANPIRG/17	Apr. 2019	**Completed**
C. 17/36	**THE MID REGION SURVEILLANCE PLAN** That the MID Region Surveillance Plan is endorsed and be published as MID Doc 013.		MID Region Surveillance Plan (MID Doc 013)	MIDANPIRG/17	Apr. 2019	**Completed** Revised version endorsed by MIDANPIRG/18 (Conc. 18/43, refers)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 17/37	**MONITORING THE SURVEILLANCE IMPLEMENTATION** That, the Table at **Appendix 6.2W** be added to the MID eANP Vol III for the monitoring of Surveillance implementation in the MID Region.		SUR Monitoring table included in the VOL III		June 2020	**Completed** The monitoring table was added to the MID ANP VOL III and data populated.
D. 17/38	**ANS CYBER SECURITY WORKING GROUP** That, the ATM Data Security Action Group be renamed ANS Cyber Security Working Group (ACS WG) with Terms of Reference as at **Appendix 6.2X.**			MIDANPIRG/17	Apr. 2019	**Completed**
C. 17/39	**ATM DATA CYBER SECURITY (ADCS) PORTAL** That, a) the ADCS Portal be used as a prototype platform for ATM cyber security; and b) States be encouraged to: i. assign ADCS focal point(s) to register on the ADCS Portal; ii. provide feedback to the ADCS Admin by 1 November 2019 for further enhancements; and iii. share their experience related to cyber security, through the ADCS Portal.	To support States in addressing the ATM Cyber Security challenges	ADCS ADCS FPs Feedback	States States States		**Closed** SL AN 7/36 – 19/244 dated 6 Aug. 2019
C. 17/40	**BASELINE SECURITY GUIDELINES FOR THE MID REGION** That, the Minimum Security Baselines (MSBs) is endorsed as the baseline security guidelines for the MID Region.	To assist States protecting ANS Systems	Cyber Security guidelines for the MID Region	MIDANPIRG/17	April 2019	**Completed**

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C. 17/41	**GUIDELINES FOR THE IMPLEMENTATION OF OPMET DATA EXCHANGE USING IWXXM** That, the Guidance for Implementation of OPMET data exchange using IWXXM at **Appendix 6.2Y** is endorsed as MID Doc 012.	To assist States in the implementation of IWXXM	Published on ICAO Website	MIDANPIRG/17	Apr. 2019	**Completed**
D. 17/42	**UPDATE THE BMG TERMS OF REFERENCE** That, the Terms of Reference (TORs) of the Bulletin Management Group (BMG) be amended as at **Appendix 6.2Z.**	To keep pace with developments	BMG TORs	MIDANPIRG/17	Apr. 2019	**Completed**
C. 17/43	**FAST TRACK/APPROVAL BY PASSING PROCEDURE** That, States be invited to provide the ICAO MID Office, not later than **15 August 2019**, with their views and proposals related to Fast Track/Approval by Passing Procedure, for presentation to the MSG/7 meeting, for appropriate action.	To study the need for and feasibility of the implementation of a Fast Track/Approval by Passing Procedure	State Letter	ICAO	Aug. 2019	**Actioned** SL ME 3 – 19/273 dated 11 Sept. 2019
D. 17/44	**DISSOLUTION OF ANSIG** That, a) the Air Navigation Systems Implementation Group (ANSIG) is dissolved, and the Terms of Reference of the MSG be updated, accordingly; and b) the revised MIDANPIRG Organizational Structure at Appendix 6.4A is endorsed.	Revised ORG Structure of MIDANPIRG to increase efficiency	Dissolution of ANSIG	MIDANPIRG/17	Apr. 2019	**Completed**

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
D. 17/45	**CHAIRMANSHIP OF MIDANPIRG AND SUBSIDIARY BODIES** That, the MIDANPIRG Procedural Handbook be amended to reflect the following: "In case of absence of the Chairperson for two consecutive meetings, unless otherwise determined by special circumstances, the election of Chairperson should be included in the agenda of the second meeting for the election of a new Chairperson, unless otherwise decided by the meeting."	To ensure continuity of chairmanship in an efficient manner.	Insertion of a new para. In the MIDANPIRG Handbook	ICAO	Apr. 2020	**Completed** Will be reflected in the next Edition of the MIDANPIRG Procedural Handbook
D. 17/46	**NEW EDITION OF THE MIDANPIRG PROCEDURAL HANDBOOK** That, the Secretariat consolidate a new Edition of the MIDANPIRG Procedural Handbook, for review by the MSG/7 meeting before the formal endorsement by the MIDANPIRG/18 meeting.	To reflect the agreed changes in the new Edition of the Handbook	New Edition	MIDANPIRG	MIDANPIRG/18	**Closed** (Replaced and superseded by MIDANPIRG Dec. 18/58)

APPENDIX 5.2B

FOLLOW-UP ACTION PLAN ON MSG/7 CONCLUSIONS & DECISIONS

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
MSG/7 C. 7/ 1	**REGIONAL CART IMPLEMENTATION** That, in order to support States in their implementation efforts of the CART Report and Take-off guidance, amid COVID-19 and during the recovery phase, States that have not yet done so: a) are urged to nominate CRRIC State Focal points and upload/populate the data in the CRRIC (Gap analysis and Public Health Measure Risk Mitigation Measures); and b) are encouraged to coordinate with the ICAO MID Office for the deployment of the I-Packs for the benefit of their CAA and service providers personnel.	To support States/ANSPs in the implementation of CART	CRRIC FPs Deployment of iPacks	States States/ICAO		**Closed**
MSG/7 C. 7/2	**MIDANPIRG CART IMPLEMENTATION "PLANS OF ACTIONS"** That, in order to ensure States' ANS and related services provisions continuity, and the preparedness for the recovery phases: a) the MIDANPIRG CART Implementation "Plan of Actions" at **Appendix 3A** is endorsed; and b) States, ANSPs, Airspace users, airport operators and all concerned stakeholders are urged to support the implementation of the Plan of Actions at Appendix 3A, and exchange relevant operational data.	Support States' ANS and related services provisions continuity, and the preparedness for the recovery phases	CART Implementation "Plan of Actions"	MSG/7 States and stakeholders	Sep. 2020	**Closed** (Replaced and superseded by MIDANPIRG Conc. 18/8)
MSG/7 C.7/3	**MID RVSM SAFETY MONITORING REPORT (SMR- 2018)** That, the MID RVSM Safety Monitoring Report (SMR – 2018) at **Appendix 4A** is endorsed.	To demonstrate that the ICAO RVSM TLS are met	SMR-2018	MSG/7	Sep. 2020	**Completed** SMR2018 was endorsed by MSG/7 Conc. 7/3

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
MSG/7 C. 7/4	**RVSM DATA PROVISION TO THE MIDRMA** That, in order to allow the MIDRMA to finalize the development of the SMR-2019 & 2020: a) States are urged to comply with the provisions of the MIDANPIRG Conclusion 14/35; and b) States with high volume of traffic be included in the list of air navigation deficiencies, if LHD reports are not provided before **15 October 2020**.	Lack of provision of required data to the MIDRMA especially the LHD Reports	Traffic data and LHD reports Deficiency	States MIDANPIRG	Oct. 2019	**Closed**
MSG/7 C. 7/5	**TRAINING/AWARENESS ON RVSM LHD REPORTING** That, a) the MIDRMA to organize, as soon as possible and in any case before December 2020, a Webinar on LHD reporting; b) States are encouraged to participate actively in the Webinar on LHD Reporting; and coordinate with the MIDRMA for the provision of additional training/assistance on any RVSM safety assessment issues (including LHD reporting), as required; and c) the MIDRMA to develop and distribute relevant training/awareness guidance on LHD reporting (leaflets, brochures, posters, etc.).	Lack of LHD data provisions for development of SMRs	Training/awareness	MIDRMA / ICAO MID	Dec 2020	**Completed** Training/Wwebinar conducted on 4 Nov 2020
MSG/7 C. 7/6	**UPDATE OF MID REGION AIR NAVIGATION STRATEGY** That, , in order to improve the Initial Draft of the revised MID Region Air Navigation Strategy at **Appendix 5.1A**, with States and stakeholders inputs: a) States be invited to provide the MID Office by **15 October 2020**	To update the MID Region Air Navigation Strategy (MID Doc 002) as	Draft Revised MID AN Strategy	ICAO	15 October 2020	**Completed** SL AN 1/5-20/178 dated 1 October 2020 Revised MID Region Air Navigation Strategy endorsed by

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
	with their Air Navigation priorities and updated National Plan considering the provisions of the 6th Edition of the GANP endorsed by the 40th Session of the General Assembly (A40); b) MIDANPIRG Sub-Groups provide proposals of amendment of the MID Region Air Navigation Strategy, considering the 6th Edition of the GANP, the inputs of States and Stakeholders, and agreed priorities, before **15 Dec 2020**; and c) the joint ACAO/ICAO ASBU Symposium review the inputs of States, Stakeholders and MIDANPIRG Sub-Groups for consolidation of the revised version of the MID Region Air Navigation Strategy to be presented to MIDANPIRG for endorsement.	per the GANP 6th Edition and identify ASBU priority 1 Threads/Elements and associated monitoring elements.		MIDANPIRG Sub-Groups ICAO/ACAO	December 2020 Q1-2021	MIDANPIRG/18 (Conc. 18/12, refers)
MSG/7 C. 7/7	**MID REGION AIR NAVIGATION REPORT - 2019** That, the MID Region Air Navigation Report – 2019 at **Appendix 5.1B** is endorsed and be posted on the ICAO MID Website.	Monitoring and Reporting of ASBU implementation in the MID Region	Air Navigation Report-2019	MSG/7	Sept 2020	**Completed** The MID Region Air Navigation Report – 2019 is endorsed and posted on the ICAO MID Website. (ref to MSG/7 Conc. 7/7).
MSG/7 C. 7/8	***MID REGION AIR NAVIGATION REPORT - 2020*** That, a) States be urged to provide the ICAO MID Office, with relevant data necessary for the development of the MID Region Air Navigation Report - 2020, by **1 December 2020;** and b) the MID Region Air Navigation Report-2020 be presented to the MIDANPIRG/18 for endorsement.	To collect the data necessary for the development of the MID AN Report 2020	Report (2020)	ICAO States MIDANPIRG/18	October 2020 Dec. 2020 February 2021	**Actioned (closed)** SL AN 1/7-20/176 dated 23 September 2020 Replies (Bahrain, Lebanon, Qatar, Saudi, UAE) MID Region AN Report -2020 endorsed by MIDANPIRG/18 (Conc. 18/9, refers)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
MSG/7 D. 7/9	**DIGITAL DATASETS IMPLEMENTATION AD-HOC WORKING GROUP (DDI AD-HOC WG)** That, the Digital Datasets Ad-hoc Working Group (DDI Ad-hoc WG): a) is tasked to develop a detailed Regional Implementation Plan for Digital Datasets and update MID Doc 008; and b) be composed of: - Abdulla Hasan AlQadhi (Bahrain) - Moataz Abdel Aziz Ahmed (Egypt) - Rouhalah Salehi (Iran) - Mohammad Hussien Al Anezi (Kuwait) - Bassem Ali Nasser (Lebanon) - Faisal Al Busaidi (Oman) - Pamela Erice (Qatar) - Hind A. Almohaimeed (Saudi Arabia) - Sorin Dan. Onitiu (UAE, Rapporteur) ; and - ICAO MID Office	Development of a Regional Implementation Plan for Digital Datasets	Regional Digital Datasets Implementation Plan	MIDANPIRG/18	February 2021	**Closed** (Replaced and superseded by MIDANPIRG Dec. 18/17)
MSG/7 D.7/10	**REVISED ATFM TF TERMS OF REFERENCE** That, the ATFM TF Terms of Reference are amended as at **Appendix 5.2A**.	Update the ATFM TF ToRs	Revised ToRs	MSG/7	Sep. 2020	**Completed**

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
MSG/7 C.7/10	**FREQUENCY COORDINATION PROCESS IN THE MID REGION** That, in order to enhance the frequency coordination process in the MID Region, States be invited to: a) use the latest version of the FF tool in frequency coordination process; b) provide ICAO with updated frequency list for COM VHF and NAV (with accurate information); c) provide feedback on the FF tool; d) nominate Frequency Management Focal Points, if not yet done so; and e) participate actively in the frequency management workshop planned for Q1-2021.	Enhance Frequency coordination process	State Letter/ Workshop Nominate FP and provide feedback	ICAO States	Q1-2021	**Closed** (Replaced and superseded by MIDANPIRG Conc. 18/45)
MSG/7 D. 7/12	**LONG-TERM FREQUENCY ASSIGNMENT PLAN IN THE MID REGION** That, in order to secure adequate spectrum for VHF-COM, ILS, VOR, DME and GBAS/VDB facilities and meet the operational requirements up to 2030, the Frequency Management Ad-hoc Working Group (FM WG) is tasked with the development of a rolling frequency assignment plan in coordination with concerned parties.	Secure adequate spectrum	Frequency assignment plan	FM WG	TBD	**Closed** (Replaced and superseded by MIDANPIRG Conc. 18/46)
MSG/7 C. 7/13	**FREQUENCY MANAGEMENT WEBINAR** That, in order to raise awareness on ICAO frequency management principles and the functions of Frequency Finder (FF) tool, a Frequency Management Webinar be conducted in Q4-2020 with the support of experts from the MID Region and ICAO HQ.	Raise awareness on ICAO FM principles and the functions of the FF tool	FM Webinar	ICAO	Q4-2020	**Completed** Frequency Management Webinar conducted (11-12 November 2020)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
MSG/7 D. 7/14	**NEW EDITION OF THE MIDANPIRG PROCEDURAL HANDBOOK** That, a) the Secretariat, in coordination with the Chairpersons of the Group and its Sub-Groups, develop a new Edition of the MIDANPIRG Procedural Handbook, to be presented to MIDANPIRG/18 for endorsement; and b) the authority given to the MIDANPIRG Sub-Groups be reconsidered, especially with regard to the technical issues, which do not raise any concern/controversy.	To reflect the agreed changes in the new Edition of the Handbook	New Edition	MIDANPIRG	MIDANPIRG/18	**Closed** Replaced and Superseded by MIDANPIRG Decision 18/58
Draft C. 7/1	**AIR NAVIGATION DEFICIENCY RELATED TO NON-IMPLEMENTATION OF TOD AREA 2A** That, States that have not yet provided Terrain and Obstacle Data (TOD) for area 2a, the take-off flight path area and the area bounded by the lateral extent of the aerodrome obstacle limitation surfaces (OLS) at International Aerodromes, be included in the List of Air Navigation Deficiencies.	Implementation of TOD for area 2a, the take-off flight path area and OLS	New deficiencies related to TOD Area 2a, the take-off flight path area & OLS	MIDANPIRG/18	February 2021	**Completed** (Replaced and superseded by MIDANPIRG Conc. 18/20)
Draft D. 7/2	**FREQUENCY OF MIDANPIRG MEETINGS AND DISSOLUTION OF THE MIDANPIRG STEERING GROUP (MSG)** That, considering the new generic Terms of Reference of PIRGs approved by the President of the Council on 7 August 2020 mandating the need for PIRGs to meet on annual basis: a) the MIDANPIRG be organized on annual basis in an alternate manner between face-to-face and virtual meetings; and b) the MSG is dissolved.	Align MIDANPIRG ToRs with the new ToRs approved by the PRES of the Council and adjust the ORG Structure accordingly, for improved efficiency	Revised ToRs and new ORG Structure	MIDANPIRG/18	Feb. 2021	**Completed** (Replaced and superseded by MIDANPIRG Dec. 18/49 & 18/50)

APPENDIX 5.2C

MID Air Navigation KPIs: data collection

KPI (KPAs)	**Title / Definition**	**Measurement Units**	**Variants**	**Data Requirement**	**Formula / Algorithm**	**Data collection Timeframe**
KPI 01 (predictability)	**Departure punctuality** Percentage of flights departing from the gate on-time (compared to schedule).	% of flights	Variant 2A – % of departures within ± 15 minutes of scheduled time of departure	For each departing scheduled flight: - List of all IFR scheduled departure for each international aerodrome - Scheduled time of departure (STD) or Scheduled off-block time (SOBT) - Actual off-block time (AOBT)	**At the level of individual flights:** 1. Exclude non-scheduled departures 2. Categorize each scheduled departure as on-time or not **At aggregated/National level:** 3. Compute the KPI: number of on-time departures divided by total number of IFR scheduled departures	1 month (June 2021)
KPI 02 (Efficiency, Environmental Impact)	**Taxi-out additional time** Actual taxi-out time compared to an unimpeded/reference taxi-out time.	Excess taxi-out time in Minutes/flight	Variant 1 – basic (computed without departure gate and runway data)	For each departing flight: -List of all IFR departures for each international aerodrome - Actual off-block time (AOBT) - Actual take-off time (ATOT)	**At the level of individual flights:** 1. Select departing flights, exclude helicopters 2. Compute actual taxi-out duration: ATOT minus AOBT 3. Compute additional taxi-out time: actual taxi-out duration minus unimpeded/reference taxi-out time **At aggregated/National level:** 4. Compute the KPI: sum of additional taxi-out times divided by number of IFR departures	1 month (June 2021)
KPI 13 (Efficiency, Environmental Impact)	**Taxi-in additional time** Actual taxi-in time compared to an unimpeded/reference taxi-in time	Excess taxi-in time in Minutes/flight	Variant 1 – basic (computed without landing runway and arrival gate data)	For each arriving flight: - List of all IFR scheduled Arrivals for each international aerodrome - Actual landing time (ALDT) - Actual in-block time (AIBT)	**At the level of individual flights:** 1. Select arriving flights, exclude helicopters 2. Compute actual taxi-in duration: AIBT minus ALDT 3. Compute additional taxi-in time: actual taxi-in duration minus unimpeded/reference taxi-in time **At aggregated/National level:** 4. Compute the KPI: sum of additional taxi-in times divided by number of IFR arrivals	1 month (July 2021)
KPI 14 (predictability)	**Arrival punctuality** Percentage of flights arriving at the gate on-time (compared to schedule)	% of flights	Variant 2A – % of arrivals within ± 15 minutes of scheduled time of arrival	For each arriving scheduled flight: - List of all IFR scheduled arrival for each international aerodrome - Scheduled time of arrival (STA) or Scheduled in-block time (SIBT) - Actual in-block time (AIBT)	**At the level of individual flights:** 1. Exclude non-scheduled arrivals 2. Categorize each scheduled arrival as on-time or not **At aggregated/National level:** 3. Compute the KPI: number of on-time arrivals divided by total number of scheduled arrivals	1 month (July 2021)

APPENDIX 5.2D

GUIDELINES FOR THE PUBLICATION OF FIR BOUNDARY POINTS

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

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

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

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

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

APPENDIX 5.2E

TABLE CNS II-1 - AERONAUTICAL FIXED TELECOMMUNICATIONS NETWORK (AFTN) PLAN

EXPLANATION OF THE TABLE

Column

1 The AFTN Centres/Stations of each State are listed alphabetically. Each circuit appears twice in the table. The categories of these facilities are as follows:
M - Main AFTN COM Centre
T - Tributary AFTN COM Centre
S - AFTN Station

2 Category of circuit:
M - Main trunk circuit connecting Main AFTN communication centres.
T - Tributary circuit connecting Main AFTN communication centre and Tributary AFTN Communications Centre.
S - AFTN circuit connecting an AFTN Station to an AFTN Communication Centre.

3 Type of circuit provided:
LTT/a - Landline teletypewriter, analogue (e.g. cable, microwave)
LTT/d - Landline teletypewriter, digital (e.g. cable, microwave)
LDD/a - Landline data circuit, analogue (e.g. cable, microwave)
LDD/d - Landline data circuit, digital (e.g. cable, microwave)
SAT/a/d - Satellite link, with /a for analogue or /d for digital

4 Circuit signalling speed in bits/s.

5 Circuit protocols

6 Data transfer code (syntax):
ITA-2 - International Telegraph Alphabet No. 2 (5-unit code).
IA-5 - International Alphabet No. 5 (ICAO 7-unit code).
CBI - Code and Byte Independency (ATN compliant).

7 Remarks

State/Station	Category	Requirement				Remarks
		Type	Signalling Speed	Protocol	Code	
1	2	3	4	5	6	
BAHRAIN						
BAHRAIN						
ABU DHABI	M		64 ~~9.6Kbps~~	~~CIDIN~~	IA-5	
ANKARA	M		64Kbps	~~AFTN~~	IA-5	
BEIRUT	M		64 ~~9.6~~Kbps	AMHS	IA-5	All: AMHS by 2017
DOHA	T		64 ~~9.6~~Kbps	AMHS	IA-5	
JEDDAH	M		64 ~~9.6~~Kbps	AMHS	IA-5	
KUWAIT	M		64 ~~9.6~~Kbps	~~CIDIN~~	IA-5	
MUSCAT	M		64 ~~9.6~~Kbps	~~None~~	IA-5	
NICOSIA	M		~~64~~9.6Kbps	~~CIDIN~~	IA-5	
SINGAPORE	M		64 ~~9.6~~Kbps	~~None~~	IA-5	
TEHRAN	M		64 ~~9.6~~Kbps	~~None~~	IA-5	

State/Station	Category	Requirement				Remarks
		Type	Signalling Speed	Protocol	Code	
1	2	3	4	5	6	
EGYPT						
CAIRO	M					
AMMAN	M		64-9.6Kbps	AMHS	IA-5	
ATHENS	M		64-9.6Kbps	AMHS~~CIDIN~~	IA-5	
BEN GURION	M		64-9.6Kbps	AMHS~~None~~	IA-5	
BEIRUT	M		9.6 Kbps	AMHS~~CIDIN~~	IA-5	
JEDDAH	M		128-9.6Kbps	AMHS	IA-5	
KHARTOUM	T		9.6Kbps	AMHS~~None~~	IA-5	
NAIROBI	M		9.6Kbps	AMHS~~None~~	IA-5	
TUNIS	M		64-9.6Kbps	AMHS	IA-5	
TRIPOLI	T		64-9.6Kbps	AMHS~~None~~	IA-5	
TRIPOLI	T		9.6Kbps	AMHS~~None~~	IA-5	~~STND BY~~
DAMASCUS	T		64-9.6Kbps	AMHS~~None~~	IA-5	
ASMARA	T		9.6Kbps	AMHS~~None~~	IA-5	
IRAN						
TEHRAN	M					
BAHRAIN	M		64 Kbps	AMHS~~None~~	IA-5	
KUWAIT	M		64 Kbps	AMHS~~None~~	IA-5	
ABU-DHABI	M		~~9.6 Kbps~~	AMHS~~None~~	IA-5	
KARACHI	M		64Kbps	AMHS~~None~~	IA-5	
ANKARA	M		64Kbps	AMHS~~AFTN~~	IA-5	
MUSCAT	M		64Kbps	AMHS~~None~~	IA-5	
DAMASCUS	T		~~50 BD~~	AMHS~~None~~	IA-5	
BAGHDAD	T		64Kbps	AMHS~~None~~	~~ITA-2~~ IA-5	~~Planned~~
IRAQ						
BAGHDAD	T		-			
AMMAN	T		2MBps	AMHS~~None~~	IA-5	~~VPN~~
BEIRUT	T		2MBps	AMHS~~None~~	IA-5	~~VPN~~
KUWAIT	T	SAT	9.6Kbps	AMHS~~None~~	IA-5	~~Planed~~
ANKARA	T			AMHS	IA-5	

State/Station	Category	Requirement				Remarks
		Type	Signalling Speed	Protocol	Code	
1	2	3	4	5	6	
JORDAN						
AMMAN						
ABU DHABI	T		2MBps	AMHS	IA-5	~~VPN~~
ANKARA	M		64Kpbs	AMHS~~AFTN~~	IA-5	~~Land~~
BAGHDAD	T		2MBps	AMHS	IA-5	~~Line~~
BEIRUT	T		2MBps	AMHS	IA-5	~~VPN~~
BEN GURION	M		9.6 Kbps	AMHS~~None~~	IA-5	~~Planed~~
CAIRO	T		64 – 9.6Kbps	AMHS	IA-5	~~VPN~~
DAMASCUS	T		64 – 9.6Kbps	AMHS~~None~~	IA-5	~~Planed~~
JEDDAH	M		64Kbps	AMHS	~~X400~~	
NICOSIA	T		64Kbps	AMHS~~AFTN~~	IA-5	
KUWAIT	T					
KUWAIT	M	LDD/d	64 ~~– 9.6~~Kbps	AMHS~~None~~	IA-5	
BAHRAIN	M	LDD/a	64- ~~9.6~~ Kbps	AMHS~~None~~	IA-5	
DAMASCUS	T	LDD/a	64~~-9.6~~ Kbps	AMHS~~None~~	IA-5	
BEIRUT	T	LDD/a	64 – ~~9.6~~Kbps	AMHS~~None~~	IA-5	~~Back-up~~
DOHA	M		256Kbps	AMHS~~None~~	IA-5	
Hamad-Airport	M	LDD/d	64~~-9.6~~ Kbps	AMHS~~None~~	IA-5	
KARACHI	T	LDD/d	64 – ~~9.6~~Kbps	AMHS~~None~~	IA-5	
TEHRAN		SAT/ad	64 ~~9.6~~Kbps	AMHS~~None~~	IA-5	
BAGHDAD						
LEBANON						
BEIRUT	M					
AMMAN	M		2Mbps	AMHS	IA-5	~~VPN in process~~
BAGHDAD	T		2Mbps	AMHS~~CIDIN~~	IA-5	~~VPN planed~~
BAHRAIN	M		64~~-9.6~~Kbps	AMHS~~CIDIN~~	~~A 5~~IA-5	
CAIRO	M		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
DAMASCUS	T		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
JEDDAH	M		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
KUWAIT	M		64~~-9.6~~Kbps	AMHS~~CIDIN~~	IA-5	
NICOSIA	M		64~~9.6~~ Kbps	AMHS	IA-5	
LIBYA						
TRIPOLI	T			AMHS	IA-5	
MALTA	T			AMHS	IA-5	
TUNIS	M		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
BENGHAZI	T		64 Kpbs	AMHS	IA-5	
CAIRO	M		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
KHARTOUM	T		64~~9.6~~Kbps	AMHS~~None~~	IA-5	

State/Station	Category	Requirement				Remarks
		Type	Signalling Speed	Protocol	Code	
1	2	3	4	5	6	
OMAN						
MUSCAT						
ABU DHABI	T		64Kbps	AMHS		
BAHRAIN	M		64Kbps	AMHS~~None~~	IA-5	
MUMBAI	M		64Kbps	AMHS~~None~~	IA-5	
JEDDAH	M		64Kbps	AMHS~~None~~	IA-5	
SANA'A	T		64 kbps~~100 BD~~	AMHS~~None~~	IA-5	
KARACHI	M		64Kbps	AMHS~~None~~	~~ITA-2~~	
TEHRAN	M		64Kbps	AMHS~~None~~	IA-5	
					IA-5	
QATAR						
DOHA						
BAHRAIN	M		2Mbps	AMHS~~AFTN~~	~~IA-5 (TCP)~~	
KUWAIT	M		2Mbps	AMHS	~~X400(TCP)~~ IA-5	
ABU DHABI	T		2Mbps	AMHS	~~X400(TCP)~~ IA-5	
SAUDI ARABIA						
JEDDAH	M					
ADDIS-ABABA	M	SAT	64~~9.6~~Kbps	AMHS~~None~~	IA-5	
BAHRAIN	M		64~~9.6~~Kbps	AMHS~~CIDIN~~	IA-5	~~AMHS~~
BEIRUT	M		64~~9.6~~Kbps	AMHS~~None~~	IA-5	~~(2015~~
CAIRO	M		128 ~~9.6~~Kbps	AMHS	~~X400~~	~~AMHS~~
MUSCAT	M		64 Kbps	AMHS~~None~~	IA-5	~~(2015~~
SANA'A	T	SAT	64 ~~9.6~~Kbps	AMHS~~None~~	IA-5	
AMMAN	M		64Kbps	AMHS	IA-5	~~AMHS~~
KHARTOUM	T		64Kbps	AMHS	IA-5	~~(2015~~
ABUDHABI	T	SAT	64Kbps	AMHS	IA-5	
NICOSIA	M		64Kbps	AMHS~~CIDIN~~	IA-5	~~AMHS~~
						~~EUR/~~
						~~MID~~
						~~OPMET~~

State/Station	Category	Requirement				Remarks
		Type	Signalling Speed	Protocol	Code	
1	2	3	4	5	6	
SUDAN						
KHARTOUM	M~~T~~					
ADDIS ABABA	M		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
ASMARA	T		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
CAIRO	M		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
JEDDAH	M		64Kbps	AMHS	IA-5	
TRIPOLI	T		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
NDJAMENA	M		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
SYRIA						
DAMASCUS						
ATHENS	M		~~2 X 50 BD~~	AMHS~~None~~	IA-5	
AMMAN	T		64~~9.6~~Kbps	AMHS~~None~~	~~ITA-2~~	
BEIRUT	M		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
CAIRO	M		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
KUWAIT	M		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
TEHRAN	T		64 Kbps~~ 50 BD~~	AMHS~~None~~	IA-5 ~~ITA-2~~	
UAE						
ABU DHABI						
BAHRAIN	M		64~~9.6~~Kbps	AMHS~~CIDIN~~	IA-5	
AMMAN	T	VPN	2 Mbps	AMHS	IA-5	~~VPN~~
MUSCAT	M		64Kbps	AMHS	IA-5	
DOHA	T		128Kbps	AMHS	IA-5	
TEHRAN	M		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
JEDDAH	T	SAT	64Kbps	AMHS	IA-5	
YEMEN						
SANA'A						
JEDDAH	T		64~~9.6~~Kbps	AMHS~~None~~	IA-5	
MUSCAT	T		64~~9.6~~Kbps	AMHS~~None~~	IA-5	

APPENDIX 5.2F

TABLE CNS II-2 - REQUIRED ATN INFRASTRUCTURE ROUTING PLAN

EXPLANATION OF THE TABLE

Column

1 Name of the Administration and Location of the ATN Router
2 Type of Router (in end systems (ES) of the Administration shown in column 1)
3 Type of Interconnection:
Inter Regional: Connection between different Regions/ domains
Intra Regional: Connection within a Region/ domain.
4 Connected Router: List of the Administration and location of the ATN routers to be connected with the router shown in column 1.
5 Bandwidth: Link Speed expressed in bits per second (bps)
6 Network Protocol: If Internet Protocol Suite is used, indicate version of IP (IPv4 or IPv6)
7 Via: The media used to implement the interconnection of the routers. (in case of IP service bought from a service provider, indicate VPN)
8 Remarks

Administration and Location	Type of Router	Type of Interconnection	Connected Router	Bandwidth	Network Protocol	Via	Remarks
1	2	3	4	5	6	7	8
BAHRAIN, Bahrain	BIS	Inter-Regional Intra Regional	ASIA/PAC Oman, Saudi Arabia Kuwait, Lebanon Iran, Qatar, UAE		IPv4		
EGYPT, Cairo	BIS	Inter-Regional Intra Regional	AFI, EUR Israel, Jordan, Lebanon, Athena Saudi Arabia		IPv4		
IRAN, Tehran	BIS	Intra Regional	ASIA/PAC Kuwait, Bahrain Afganistan		IPv4		
IRAQ, Baghdad	IS	Intra Regional	Jordan, Lebanon		IPv4		
JORDAN, Amman	BIS	Intra Regional	Egypt,Israel Lebanon,Iraq,Syria		IPv4 VPN	JT	
KUWAIT,Kuwait	BIS	Inter-Regional Intra Regional	EUR, Pakistan, Iran,Qatar,Bahrain, Lebanon		IPv4		
LEBANON, Beirut	BIS	Inter-Regional Intra Regional	EUR Jordan,Syria Iraq,Kuwait,Bahrain Saudi Arabia,Egypt		IPv4		
LIBYA	IS	Intra Regional			IPv4		
OMAN, Muscat	BIS	Inter-Regional Intra Regional	ASIA/PAC Yemen, Bahrain, UAE, Saudi Arabia		IPv4 VPN	OT	
QATAR, Doha	IS	Intra Regional	Kuwait, Bahrain Abu Dhabi		IPv4		
SAUDI ARABIA, Jeddah	BIS	Inter-Regional Intra Regional	AFI Egypt, Lebanon Bahrain,Oman Yemen		IPv4		
SUDAN	BIS	Inter-Regional Intra Regional	AFI Saudi Arabia, Egypt		IPv4		
SYRIA, Damascus	IS	Intra Regional	Jordan, Lebanon		IPv4 VPN		
U.A.E, Abu Dhabi	BIS	Intra Regional	Bahrain, Oman Qatar		IPv4 VPN		
YEMEN, Sana'a	IS	Intra Regional	Oman, Saudi Arabia		IPv4	YT	

APPENDIX 5.2G

SPECIFIC REGIONAL REQUIREMENTS

3.1 The MIDAMC application available at: http://www.midamc.jo should be used for all AMHS address coordination and other AMHS and Network related matters.

3.2 The EUROCONTROL MICA application available at: https://extranet.eurocontrol.int/http://webprisme.cfmu.eurocontrol.int/mica/Index.action should be used for the Mode S SSR IC allocation and coordination.

3.3 States should ensure that all Mode S Radars support SI/II code operation to enable the use of SI codes by Mode S interrogators even in an environment where all Mode S targets would not be equipped for the use of SI codes.

APPENDIX 5.2H

MID REGION AIM IMPLEMENTATION ROADMAP

Light Green: Timeframe for implementation (implemented / ongoing)
Dark Green: When implementation will be completed (by all States)

Steps/Elements	2019 & before	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031+	Priority	Remarks
AIXM database (AIXM 5.1+)														1	
eAIP														1	
Terrain area 1, 2a and 4 Datasets														1	Terrain area 2a dataset (and its supplementary areas according to Annex 15, 5.3.3.3.3)
Obstacle area 1, 2a and 4 Datasets														1	Obstacle area 2a dataset (and its supplementary areas according to Annex 15, 5.3.3.4.5)
Terrain area 2b, 2c, 2d and 3 Datasets														2	Based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs
Obstacle area 2b, 2c, 2d and 3 Datasets														2	Based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs
AIP datasets														1	(sub-datasets/grouping TBD)
Aerodrome Mapping Dataset(s)														2	Based on the States' decision to be reflected in the States' national Regulations and AIM National Plans, in accordance with operational needs
Instrument Flight Procedure (IFP) Dataset(s)														1	
Agreement with data originators														1	
Provision of quality-assured aeronautical data and information														1	
Training														1	Continuous
NOTAM Improvements														2	Step 1: identification of operational conditions under which a NOTAM shall or shall not be originated Step 2 (TBD): replacement of current NOTAMs by a digital version through the use of AIXM
Aeronautical Data Exchange														2	Continuous trials between States' AISs should be ongoing

Light Green: Timeframe for implementation (implemented / ongoing)
Dark Green: When implementation will be completed (by all States)

Steps/Elements	2019 & before	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031+	Priority	Remarks
Dissemination of Aeronautical Information in SWIM environment														**2**	
Electronic Aeronautical Charts														**2**	
Interoperability with MET														**2**	
Aeronautical Information Briefing														**2**	(Digital briefing)

APPENDIX 5.2I

NATIONAL AIM IMPLEMENTATION ROADMAP

STATE	
DATE	

Phase/Step	**Timeline**														**Start**	**End**	**Remarks**
	2019-	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032+**			
WGS-84																	
AIRAC																	
QMS																	
AIXM database (AIXM 5.1+)																	
eAIP																	
Terrain Area 1																	
Obstacle Area 1																	
Terrain Area 2a (plus TKOF flight path and OLS)																	
Obstacle Area 2a (plus TKOF flight path and OLS)																	
Terrain Area 2b, 2c, 2d																	
Obstacle Area 2b, 2c, 2d																	
Terrain Area 3																	
Obstacle Area 3																	
Terrain Area 4																	
Obstacle Area 4																	
AIP Datasets																	

Aerodrome Mapping Datasets																	
IFP Datasets																	
Agreement with data originators																	
Provision of quality-assured aeronautical data and information																	
Training																	
NOTAM Improvements																	
Aeronautical data exchange																	
Dissemination of Aeronautical Information in SWIM environment																	
Electronic aeronautical charts																	
Interoperability with MET products																	
Aeronautical information briefing																	

Legend		Not Started
		In Progress
		Implemented

APPENDIX 5.2J

MID REGION CAPACITY BUILDING NEEDS ON AGA AREA REGIONAL TECHNICAL ASSISSTANCE ON AIRPORTS DESIGN AND OPERATIONS					
AGA Sub-Areas			**State seeks for assistance at the CAA Level (oversight)**	**State seeks for assistance at the Airport Operators Level**	**State is volunteering to offer assistance through SMEs and key tools**
Airport Design	**Airport Capacity and Master Plan**				
	Airside Design				
	Visual Aids				
	Radio Navigation Aids				
	Electrical Systems				
	Terminals				
	Fencing				
Aerodrome Operations	**Aerodrome Emergency Plan**				
	Rescue and Firefighting				
	Disable Aircraft Removal				
	Wildlife Strike Hazard Reduction				
	Operational Area Management				
	Airside Adverse Condition Operations				
	Ground Servicing of Aircraft				
	Control of Obstacles				
	Aerodrome Maintenance	Airside Electrical			
		Pavement Management			
		Drainage Management			
		Airside Markings			
		Civil Engineering			
	Safety Management	SMS Implementation			
		Phased Approach Implementation Plan			
		Gap Analysis			

Survey Questionnaire

Airport Collaborative Decision Making

(A-CDM) Implementation Plan

Name of the State/Administration: _ _ _ _ _ _ _ _ _ _ _ _ _ _

Approach to implementation

1. Is the A-CDM implementation a national program/project or a local airport by airport project? *(Please select the applicable box)*

It is a national program where A-CDM is being implemented at several airports with one entity managing the overall program to facilitate common procedures and approach to the implementations	
It is an "airport-by-airport" approach where each project is managed at "local" level	
It is a combination of a national program and separate airport projects manager at "local" level	
There is not yet an implementation plan for A-CDM	

Please add free text comments if needed:

2. If A-CDM has been/is Implemented / going to be implemented, please indicate at which airports and by what year:

Airport	Year

Add additional lines as needed

For EACH airport mentioned above, please provide separate responses to QUESTIONS 3 to 22:

A-CDM Implementation Plan

Status of A-CDM implementation

3. In which of the following phases is the A-CDM implementation?
(Please select the box that is the most suitable option)

No planning, i.e. nothing in relation to A-CDM has started yet	
Initial planning, i.e. collecting information about guidance material etc. to set the scope of the projects	
Planning well underway, i.e. scope set, engaged with stakeholders etc.	
Ready to launch A-CDM implementation project	
A-CDM implemented, i.e. procedures are in place and used in the "day-to-day" operations (Please indicate number of years for A-CDM used in day-to-day operations.	

A-CDM Project Scope

4. Which one of the A-CDM conceptual elements are being implemented as part of the A-CDM project? (*Please select the applicable box(es))*

Information sharing	
Milestone Management	
Variable Taxi Times	
Collaborative Management of Flight Updates	
Pre Departure Sequencing	
A-CDM in adverse conditions	
Integration with Air Traffic Flow Management (ATFM)	

Please add free text comments if needed:

5. How is Information sharing implemented as par to the solution/planned A-CDM solution?
(*Please select the applicable box(es))*

Via Information Sharing platform collecting data in real-time from various systems.	
Via manual interaction and information exchange	
A combination of the two alternatives above	

Please add free text comments if needed:

6. What Milestones (based on the Eurocontrol model) are captured/planned to be captured for the Milestone Management? *(Please select the applicable box(es) and please indicate if the implementation/planned implementation uses any other names for the milestones)*

Eurocontrol Milestones	Applied	Alternative name
Milestone 1 - ATC Flight Plan Activated		

Milestone 2 - CTOT Allocation/EOBT – 2 Hrs		
Milestone 3 - Take off from Outstation		
Milestone 4 - Local Radar Update/FIR Entry		
Milestone 5 - Final Approach		
Milestone 6 - Landed		
Milestone 7 - In Block		
Milestone 8 - Aircraft at Gate		
Milestone 9 - TOBT Entered		
Milestone 10 - TSAT Issued		
Milestone 11 - Boarding Starts		
Milestone 12 - Aircraft Ready		
Milestone 13 - Start-up Request		
Milestone 14 - Start-up Approved		
Milestone 15 - Off Block		
Milestone 16 - Take Off		

Please add free text comments if needed:

7. Are you planning to apply the concept of Target Off Block Times? *(Please select the applicable box)*

No	
Yes, and this will be the responsibility of the Airlines and/or appointed Ground Handlers to manage and update the Target Off Block Times (TOBT) in order to ensure that TOBT is accurate and reliable.	

   a. If yes, will the project provide a solution that facilitates predictive TOBT calculations? *(Please select the applicable box)*

No	
Yes	

8. What methodology is applied/going to be applied for calculating Variable Taxi Time? *(Please select the applicable box)*

"Table look up" utilizing fixed taxi time from gates to runways.	
Dynamic Variable Taxi Time using self-learning algorithms based on real-time and statistical surveillance data	

9. How is Target Start-Up Approval Time (TSAT) being calculated as part of Pre-Departure Sequencing? *(Please select the applicable box)*

Manual TSAT calculations	
Automatic TSAT calculations utilizing a Pre Departure Sequence or full Departure Management system/capability	

   a. If TSAT Is calculated automatically, at what key milestones are the TSAT calculated/re-calculated? *(Please select the applicable box(es))*

Milestone 1 - ATC Flight Plan Activated	

Milestone 2 - CTOT Allocation/EOBT – 2 Hrs	
Milestone 3 - Take off from Outstation	
Milestone 4 - Local Radar Update/FIR Entry	
Milestone 5 - Final Approach	
Milestone 6 - Landed	
Milestone 7 - In Block	
Milestone 8 - Aircraft at Gate	
Milestone 9 - TOBT Entered	
Milestone 10 - TSAT Issued	
Milestone 11 - Boarding Starts	

10. How TSAT information is shared to Airlines operators/Ground Handling Agencies? *(Please select the applicable box(es))*

Via A-CDM portal/web interface/application	
Via mobile application	
Via Automatic Parking Aid displays at gate	
Data link	
Radio communication	

11. What are the key parameters for data exchange between ACDM and ATFM? *(Please specify in free text in the text box)*

12. To establish the A-CDM project, has any guidance material been used to facilitate the scope and objectives? *(Please select the applicable box)*

Yes	
No	

a. If yes, please indicate what guidance material has been used. *(Please select the applicable box(es))*

ICAO Doc 9971	
Eurocontrol A-CDM Manual	
CANSO A-CDM Guidance Material	
FAA Surface CDM material	
IATA Guidance material	
Specific airport “operational guidelines” materials	
Other material like Eurocae or ETSI standards for A-CDM (*Please specify)*	

Please add free text comments if needed:

Local Concept of Operations

13. Has a “Local Concept of Operations” document for the A-CDM implementation been established? *(Please select the applicable box)*

Yes	
No	

a. If yes, please indicate the scope of the document. *(Please select the applicable box(es))*

It sets out the objectives that A-CDM is aiming to achieve	
It provides a common vocabulary with all definitions for A-CDM	
It provides information about information sharing and the sources for the information collected	
It provides information about the milestones used in the A-CDM process	
It defines each participating stakeholder's role and responsibilities as part of the A-CDM process	
It provides how A-CDM shall operate during irregular operations	
It provides descriptions of the process steps for various regular and irregular operations	
It includes how to measure the success of A-CDM once implemented, i.e. Key Performance Indicators (KPIs)	

Please add free text comments if needed:

Stakeholder Engagement

14. Which stakeholders are involved in the A-CDM implementation? *(Please select the applicable box(es))*

Airport operator	
Airline operators	
Ground handlers	
Air Navigation Service Provider	
Network Operations/ATFM unit	
Others (*Please specify)*	

15. Has a Memorandum of Understanding (MOU) been established between the stakeholders? *(Please select the applicable box)*

Yes	
No	

Please add free text comments if needed:

Project Implementation

16. Has a project group been established with all stakeholders involved? *(Please select the applicable box)*

Yes	
No	

Please add free text comments if needed:

17. Is there a shared leadership or is the project management led by one organization? (*Please select the applicable box)*

Shared leadership	
Leadership is appointed from one organization	

a. Please explain why one of the options is applied:

18. Is the project group meeting held on a regular basis or ad-hoc? (*Please select the applicable box)*

Regular	
Ad-hoc	

a. Please explain why one of the options is applied:

19. What are the objectives identified in the project that A-CDM is aiming to achieve? *(Please select the applicable box(es))*

Increase predictability	
Increase on-time performance	
Improve resource utilization	
Reduce taxi times	
Increase airport efficiency	
Reduce environmental nuisance	
Optimise the use of available capacity	
Improved safety	
Other *(please indicate what other objectives are identified in box below)*	

Please add free text comments if needed:

20. Has the project identified a more detailed Key Performance Framework with Key Performance Indicators to facilitate the measurements of the A-CDM implementation? *(Please select the applicable box)*

Yes	
No	

a. If yes, would the project team be willing to share this work with the ICAO Regional officer for Aerodromes and Ground Aids (AGA) to aid in its future work such as the establishment of more detailed A-CDM guidelines? *(Please select the applicable box)*

Yes	
No	

Please add free text comments if needed:

Training

21. Has the project established training in any of the following areas for the implementation of A-CDM? *(Please select the applicable box(es))*

Initial training for stakeholders to "what is A-CDM"	
Advanced training for stakeholders to "what is A-CDM"	
Training on how to operate under A-CDM procedures for all stakeholders	
Specialized/tailored training for each user in relation to "what do I need to do when A-CDM is operational at the airport"?	

Please add free text comments if needed:

Challenges

22. Please rank what hold most true in relation to your A-CDM implementation. (Please use 1-5 where 1 indicates "no, do not agree at all" and 5 is "yes, agree completely").

A-CDM as a concept is too complicated and vague	
Developed guidelines are not enough to understand how A-CDM shall be implemented successfully	
It is challenging to understand what an A-CDM implementation is, i.e. what has to be achieved to say "yes, we have A-CDM at our airport"	
The challenge is to understand what system(s) is(are) and information are needed to implement A-CDM	
It is challenging to get all stakeholders engaged and committed to the A-CDM project	
It is challenging to manage the A-CDM project	
It is challenging to understand what value A-CDM will bring	
It is very complicated to establish how to measure the success of A-CDM	

Please add free text comments if needed:

APPENDIX 5.2L

INTERNATIONAL CIVIL AVIATION ORGANIZATION

ICAO MID

MID REGION ATM Operational Data Exchange Process

Edition 1.0, Feb 2021

INTRODUCTION

1. The intention of this simplified CDM procedure is to provide effective process for air navigation service providers (ANSPs) in order to carry out cross-border coordination with their adjacent ANSPs taking into consideration the circumstances that would have impact on traffic flows. This includes going into a contingency situation or returning to normal operations.

2. The main objective of the procedures, however, is to provide a better collaborative platform for the coordination and management of traffic during the disruption caused by the COVID-19 Pandemic. These procedures would also support a smooth and less challenging return to normal operations. In this regard, the templates at Appendices A and B were developed to support coordination between adjacent area control centers (ACCs).

3. The procedures are most suitable for those States that have not implemented or established an ATFM structure yet; as well as in the ICAO Regions where no regional/sub-regional ATFM solutions had been implemented. The well-established regional or sub-regional ATFM solutions would normally ensure collaboration between their members, however, it is recognized that coordination with their adjacent States/Regions might remain a challenge.

Note 1: The procedure is not intended to replace in any form the guidance in Manual on Collaborative Air Traffic Flow Management (Doc 9971) or provisions in other ICAO documentation related to ATFM/CDM or Regional ATFM/CDM plans or guidance.

4. The procedure outlined in this document requires several layers of collaboration and coordination as follows:

a) National Level.

b) Cross border between adjacent States.

c) Multi-States Collaboration (Optional).

d) Regional. Which could be part of the contingency coordination teams (CCTs) framework or similar mechanism.

Note 2: Contingency Coordination Teams (CCTs) terminology utilized on these pages represent: contingency coordination teams, regional contingency groups, contingency and emergency response groups or any similar framework.

National Level

5. At National level, where no ATFM system is in place, a National Collaborative Decision Making (CDM) Committee should be established to coordinate the ATM issues (en-route and terminal). The Committee should be composed of representatives from entities that have involvement/impact on ATM operations (ATS, MET, AIS, CNS, SAR, PANS-OPS, regulator, airspace users, airport operators, military authorities, etc.).

6. In cases where a State already have an established Committee or other mechanism is in place, measures should be taken to ensure that it addresses ATM operations-related issues and contingency planning as well as the optimization of airspace management.

7. The CDM Committee should hold frequent (preferable daily) coordination meetings/telecoms to

address the operational status and agree on the measures that should be implemented to mitigate the associated challenges.

8. A-CDM, at the airports where it is implemented, will facilitate the work of the CDM Committee, as well as for effective optimization of flight operations at the airports and relevant terminal airspaces.

9. An ATM/CDM Coordinator should be appointed to lead the communication between all stakeholders at national level, including airports, who will also act as the point of contact for cross-border coordination with the adjacent ANSPs/ACCs. It is recommended that the coordinator is an active/dynamic en-route air traffic controller/supervisor knowledgeable of the airspace with high level tactical skills, able to discuss, coordinate and explore solutions to traffic flows. Where an ATFM structure is in place, the ATFM Manager would play this role.

Cross-border Coordination

10. The relevant communication and exchange of operational information among stakeholders on a real-time basis forms the backbone of CDM. This exchange may be accomplished by a variety of means including telephone calls, web conferences, e-mail messages, and electronic data exchange including, but not limited to web page displays. The purpose of the information exchange is to increase stakeholder situational awareness, improve operational decision-making, and enhance the efficiency of the ATM system.

11. It is a significant advantage if a tool is in place to exchange information between the adjacent ACCs. Nevertheless, operational issues for discussion could be coordinated by emails and discussed via telephone. In addition, the use of web-conference applications should be considered, which improve the exchange/sharing of information through view-my-screen options.

12. It is recommended that the ATM/CDM Coordinators from adjacent States communicate together at least once daily on a suitable time for both parties that ensure all matters related to operations are addressed in a timely manner. Timing of daily teleconference should be based on either traffic distribution of associated shift changes.

13. The objective of daily teleconferences between adjacent ACCs is mainly to address the operations outlook and any factor affecting normal operations so as to agree on ATM measures to overcome challenges impacting traffic flows and operational requirements agreed upon via the ATS Letters of Agreement (LoAs).

14. The sharing of information and coordination at national, cross-border and regional levels between stakeholders provides the following tangible and measurable operational benefits:

- reduction of unnecessary delays and airborne holding due to, better planning, increased situational awareness and solutions developed via the coordination process;
- reroute flights in collaboration with neighboring ANSPs, taking into account airspace user needs;
- fuel savings due to better-coordinated tactical air traffic management;
- communicating in a timely manner the impact of special events, contingency and crisis including weather, national disaster, disruption of services, etc.;
- advance planning for the events and for post-events recovery;
- top management kept briefed and informed; and

- optimized implementation of ATFM measures due to improved view of demand and capacity predictions.

15. The Table at **Appendix A** presents a simplified ATM/CDM Telecom Template to facilitate the daily discussions between adjacent ACCs or ATFM units during the COVID-19 Pandemic and preparation for the resumption of normal operations. A more detailed Template for teleconferences during normal situation (after the pandemic) is provided at **Appendix B**. The Table Templates would form the basis for the development of ATFM Daily Plans.

Multi States Conference Calls:

16. Instead of having one-to-one daily conferences, several States may decide to organize joint teleconferences to address the topics outlined in Appendices A or B. For better management of joint teleconferences, follow-up, monitoring and reporting, a lead State/ANSP would be nominated that will ensure communication between the States members of the joint teleconferences as well as communicating and reporting as deemed necessary to the relevant ICAO Regional Office/CCT.

Regional Level

17. ICAO Regional Offices consolidate the inputs received from their relevant States or Group of States as well as those provided by the airspace users and share it as required for regional/inter-regional consideration through the CCT framework or any other mechanism for discussion and agreement on necessary ATM measures to mitigate the identified challenges.

18. Regional Offices organize periodic teleconferences, as deemed necessary, (preferably on weekly or bi-weekly basis) with States and Organizations concerned. During these regional discussions, the relevant ICAO State Letters as well as the matters reported by States and the challenges reported by airspace users should be addressed.

19. States should coordinate with their respective ICAO regional offices to provide, on a periodic basis, the measures undertaken with respect to COVID-19 Pandemic. Regional offices will follow-up in this regard.

20. The following websites provide supporting material on the APAC COVID-19 ATM/ATFM Status Update, EUROCONTROL Network Operating Plan-COVID-19 Business Continuity Plan and CANSO – Latin America and Caribbean Region COVID-10 Limitation Update, and should prove useful to all States/regions:

- APAC: https://www.icao.int/APAC/Pages/COVID-19-BCP.aspx
- EUR: https://www.public.nm.eurocontrol.int/PUBPORTAL/gateway/spec/index.html
- CANSO: https://www.cadenaois.org/vpublic_advisorynew.jsp

Note 3. A State could be assigned as a Collection Point for a group of States to consolidate the updates/inputs and provide them to the accredited ICAO Regional Office.

21. Also reference is made to the following links of ICAO, CANSO, EASA, IATA and IFATCA related to COVID-19:

ICAO https://www.icao.int/safety/COVID-19OPS

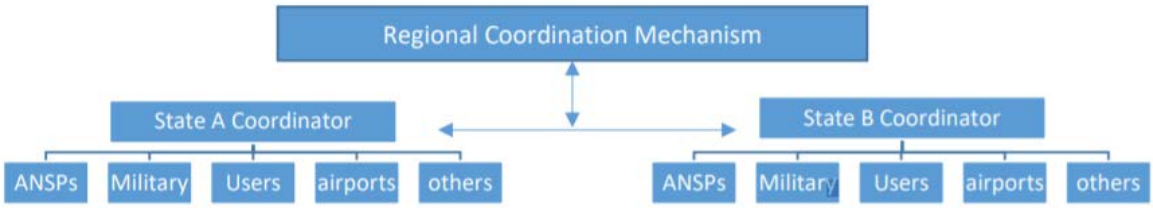
CANSO https://www.canso.org/covid-19-ensuring-continuity-ats-service-globally

EASA https://www.easa.europa.eu/the-agency/coronavirus-covid-19

IATA https://www.iata.org/en/programs/safety/health/diseases/government-measures-related-tocoronavirus

IFATCA https://www.ifatca.org/covid-19

22. The chart below illustrates the coordination process:



Recovery Phase:

23. In preparation for the recovery phase, adequate time for the gradual return of traffic should be anticipated taking into consideration the following:

a) ATC capability to handle again an increased amount of traffic after the recess period. This includes the measures taken to ensure continued competency, qualifications and skills of air traffic controllers;

b) status of aerodromes services/facilities and CNS/ATM infrastructure;

c) availability of adequate number of ATC staff ready to handle the expected increase of traffic within the en-route and terminal airspaces considering the prevention measures that might be in place;

d) availability of required air navigation services supporting ATM operations;

e) agreement between adjacent States/ANSPs on necessary ATM measures/arrangements to be implemented to ensure a safe, smooth and orderly transition to that experienced prior to the COVID-19 Pandemic;

f) development of regional transition plans for the resumption of normal operations in coordination with all regional stakeholders that should be based on the data provided by airlines and ANSPs:

   i. airlines, through IATA regional offices, could use the template at **Appendix C** to provide their planned/forecasted flights for each FIR; and

   ii. the excel sheet at **Appendix D** could be used by ANSPs to count the number of traffic at each entry/exit point to provide a better picture on the hourly distribution of traffic. Also the sheet could be beneficial for determining the impact of rerouting traffic through comparison between the situation before and after a crisis or the implementation of ATM measures.

Also reference is made to the following link to CANSO guidance related to ATFM and A-CDM and a regional cross-border initiative:
https://www.canso.org/implementing-air-traffic-flow-management-and-collaborative-decision-making

https://www.canso.org/guidelines-airport-collaborative-decision-making-cdm-key-performance-measures

https://www.cadenaois.org/index.html

APPENDIX A

Template for Daily Teleconferences between States/ANSPs during COVID-19

	Telecom.	**Ref.**	**Date**	**Action/Remark**
1	Covering period (date and time)	From:	To:	*i.e. coming 12h, 24h, 5, 7 days*
2	Between State/ANSPs	State/ANSP A: [title] [Coordinator name] [email] [Telephone/mobile]	State/ANSP B: [title] [Coordinator name] [email] [Telephone/mobile]	
3	Greetings	---	----	
4	Brief Overview of the situation			
5	Describe the measures planned/implemented due COVID-19 and/or any changes to these measures that may have impact on traffic flow during the coming period. Consider airlines reported challenges/requirements			
6	Aerodromes specific issues affecting capacity such as VIP movements, special flights, infrastructure, weather, etc.			
7	En-route specific issues such ATM restrictions, Military operations, weather, status of CNS/ATM infrastructure, etc.			
8	Changes to Coordination Processes/Communication			
9	Preparation to the normalized situation:			
	a) ANSP readiness			
	b) Measures required during transition period			
	c) Inputs from airlines			
	d) Inputs from CCTs			
	e) Common Date of implementation and publication of NOTAM			
	f) other			
10	Other topics of mutual interest			
11	Required follow-up actions till next telecom			
12	Agreement what and who will report any relevant information or decisions to the relevant ICAO Regional Office and/or CCT			
13	Summary			

APPENDIX B

Template for Daily Teleconferences between Adjacent ACCs or ATFM units

	Telecom #.			
1	Covering period (date and time)	From:	To:	*i.e. coming 12h, 24h, 5, 7 days*
2	Between State/ANSPs	State/ANSP A: [title] [Coordinator name] [email] [Telephone/mobile]	State/ANSP B: [title] [Coordinator name] [email] [Telephone/mobile]	
3	Greetings	---	----	
4	Brief Overview of the situation			
5	Describe the issues that may have impact on traffic flow during the coming period:			
	a) Weather: current or forecasted weather that would have impact on en-route or aerodrome operations such as reduced visibility, hurricanes, sandstorms, turbulence, thunderstorm activities, volcanic ash, etc.			
	b) Infrastructure (NAVAID outage, GNSS signal interference, planned maintenance, radar outage, direct COM issues, etc.) NOTAMed or planned to take place.			
	c) Military activities			
	d) Special movements			
	e) Special events			
	f) Pandemic-related issues			
	g) Others			

6	Aerodromes issues			
	a) Airport capacity			
	b) Projected terminal demand;			
	c) Anticipated ATFM measures (MDI, MIT, GSt, GDP, MINIT, etc.)			*Refer to Doc 9971 Chap 4 Section 4.5*
	d) Other			
7	En-route issues			
	a) Airspace capacity (Sector capacity)			
	b) Changes to traffic flow with highlight on relevant Entry/Exist Points.			
	c) ATS Routes status (available, closed, CDR, DCTs, etc.)			
	d) Anticipated ATFM measures (MDI, MIT, MINIT, Re-route, etc.)			*Refer to Doc 9971 Chap 4 Section 4.5*
	e) Other			
8	Coordination Process/Communication			
	a) Discuss changes to way of communication and exchange of info and coordination, of traffic between the 2 ATS units, if any. This would include, Direct Speech, OLDI/AIDC, AFTN Messages, etc.			
	b) Transfer of control points			
	c) Flight level restrictions at entry/exit points			
	d) Expected frequency changes in case of Sector opening/closure or combining sectors.			
	e) Other			
9	Other topics of mutual interest			
10	Required follow-up actions till next telecom			
11	Agreement what and who will report any relevant information or decisions to the relevant ICAO Regional Office and/or CCT			
12	Summary			

APPENDIX C

Template for Daily traffic demand between Airspace users and ANSPs

No	Flt No.	DEP	ARR	ETD	ETA	Operating Days							FR1-FR2			FR2-FR3			FR3-FR4			FR4-FR5…			Priority/phase	Remarks
						Sundays	Mondays	Tuesdays	Wednesdays	Thursdays	Fridays	Saturdays	WP/Fix	Time	FL	WP/Fix	Time	FL	WP/Fix	Time	FL	WP/Fix	time	FL		
1																										
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
11																										
12																										
13																										
14																										
15																										
16																										
17																										

APPENDIX D

Hourly Distribution of traffic on Entry/Exit points FIR

Note	*Declared Capacity:*	*Defined number of traffic that could be accepted on each point taking into consideration the available FLs, separation, ATCO workload, airspace complexity, etc.*
	No. of traffic:	*Based on inputs received form airlines or FPLs (Appendix C)*
	The spreadsheet could also be used to analysis the distribution of traffic and impact of rerouted traffic due to contingency situation.	
	% columns and Total column are formulas based for automatic calculation	

No.	Way Points	E=Entry X=Exit B=both	0:00z			1:00z…		
			Declared Capacity	No. of Traffic	%	Declared Capacity	No. of Traffic	%
1								
2								
3								
4								
5								
6								
7								
8								
9								

APPENDIX 5.2M

ACTION PLAN FOR IMPLEMENTATION OF ATFM IN THE MID REGION

Key Activities	Action		Target date	Deliverable	Champion	Supported by	Status / RMK
	No	Description					
Key Activity 1 Agreement on the ATFM Regional Framework	**1.1**	Recommending the best Scenario for a regional ATFM framework	20 Mar 2019	Recommendation	ATFM TF/2 meeting		Completed
	1.2	Presentation to the ACAO ANC/40	21 Mar 2019	Support	ACAO		Completed
	1.3	Preparing a Working Paper to MIDANPIRG/17	30 Mar 2019	WP	Secretariat	Chairman	Completed
	1.4	Agreement on the regional ATFM framework by MIDANPIRG	18 Apr 2019	MIDANPIRG Conclusion	MIDANPIRG/17	Secretariat	Completed
	1.5	Presentation to the ACAO Executive Council	28-29 Apr 2019	For support	ACAO		Completed
	1.6	Notifying States about MIDANPIRG/17 Conclusion and that the development of ATFM CONOPS started	30 Apr 2019	State Letter	ICAO	Chairman	Completed
Key Activity 2 Development of CONOPS	**2.1**	Review of the CONOPS V0.1 during ATFM TF/3	12 Jan 2020	ATFM CONOPS draft V0.1	ATFM TF/3		Completed
	2.2	Further review V0.1 and develop V0.2 for presentation to the ATFM TF/4	20 Feb 2020	ATFM CONOPS draft V0.2	ATFM Core Team		Completed
	2.3	Review V0.2 by the ATFM TF/4	20 Sep 2020	ATFM CONOPS draft V0.2			Completed
	2.4	Presentation to ACAO ANC	28 Sep 2020	For Info and Support	ACAO		Completed
	2.5	Development of the CONOPS draft V0.3	20 Oct 2020	Chairperson and Secretariat			Completed
	2.6	Circulate the MID ATFM CONOPS draft V0.3 to ATFM TF members	20 Oct 2020	email to TF members for final comments	Secretariat	ACAO	Completed
	2.7	Feedback form Task Force members on the MID ATFM CONOPS draft V 0.3	31 Oct 2020	Feedback/comments	Task Force members		Completed
	2.8	Presentation of MID ATFM CONOPS draft V0.3 to ATM SG/6 for review	9 Nov 2020	Consolidated version of ATFM CONOPS V0.3	Chairman and Secretariat	ATFM Core Team	Completed
	2.9	Endorsement of the MID ATFM CONOPS V1.0 by MIDANPIRG/18	Feb 2021	ATFM CONOPS V1.0	MIDANPIRG/18		Completed
	2.10	Circulation of the MID ATFM CONOPS V1.0 to States	Mar 2021	State Letter	ICAO MID		
	2.11	Presentation to ACAO Executive	May 2021	For Info and Support	ACAO		

Key Activities	Action		Target date	Deliverable	Champion	Supported by	Status / RMK
	No	Description					
		Council					
Key Activity 3 Development of ATFM Regional Framework and Common Operating Procedures	**3.1**	Development of ATFM Regional Framework and Common Operating Procedures initial draft V0.1 to be presented to the ATM SG/6	1 Nov 2020	ATFM Regional Framework and Common Operating Procedures initial draft V0.1	Chairperson and Secretariat		On going
	3.2	Circulation of the ATFM Regional Framework and Common Operating Procedures initial draft V0.1 to ATFM TF members	15 Nov 2020	email to ATFM TF members for comments	Secretariat		On going
	3.3	Feedback form Task Force members on ATFM Regional Framework and Common Operating Procedures initial draft V0.1	15 Dec 2020	Feedback/comments			On going
	3.4	Development of: - ATFM Regional Framework draft V0.2, - ATFM Common Operating Procedures draft V0.2.	Jan 2021 Feb 2021	- ATFM Regional Framework draft V0.2, - ATFM Common Operating Procedures draft V0.2.	ATFM Core Team	Volunteers (States/ ANSPs/ ORGs)	On going
	3.5	Presentation to ATFM TF/5 VTC of: - ATFM Regional Framework draft V0.3, - ATFM Common Operating Procedures draft V0.3.	Apr 2021	- ATFM Regional Framework draft V0.3, - ATFM Common Operating Procedures draft V0.3.	ATFM TF/5 Virtual meeting		
	3.6	Presentation to ACAO ANC	Mar 2021	For Info and Support	ACAO		
	3.7	Circulation of the: - ATFM Regional Framework draft V0.3, - ATFM Common Operating Procedures draft V0.3. to ATFM TF members.	May 2021	email to ATFM TF members	ICAO	ACAO	
	3.8	Feedback on V0.3.	July 2021	Feedback/comments	ATFM TF members		
	3.9	Consolidation of: - ATFM Regional Framework draft	Nov 2021	Consolidated version of Draft ATFM Regional	Chairman and Secretariat	Chairman ATFM	

Key Activities	Action		Target date	Deliverable	Champion	Supported by	Status / RMK
	No	**Description**					
		V0.4, - ATFM Common Operating Procedures draft V0.4. for presentation to ATM SG meeting.		Framework and draft Common Operating Procedures		Core Team	
	3.10	Presentation to ACAO Executive Council.	Dec 2021	For Info and Support	ACAO		
	3.11	Endorsement of MID ATFM Regional Framework and Common Operating Procedures V1.0 by MIDANPIRG/19	Q1 2022	ATFM Regional Framework and Common Operating Procedures V1.0	MIDANPIRG/19		
	3.12	Circulation of the endorsed versions of CONOPS, Regional Framework and Common Operating Procedures and posting on the ICAO MID Website.	Q1 2022	State Letter	ICAO	ACAO	
	3.13	Presentation to ACAO Executive Council	May 2022	For Info and Support	ACAO		
Key Activity 4 Implementation of ATFM in the MID Region	**4.1**	Development of MID ATM Operational Data Exchange process	9 Nov 2020	MID ATM Operational Data exchange	Chairperson and Secretariat		Completed
	4.2	Teleconferences between concerned stakeholders to exchange ATM related info	2021	Teleconferences to exchange info	ICAO MID	States - ORGs	
	4.3	Implementation of the MID ATFM Regional Framework and Common Operating Procedures	Cont.	Implementation roadmap	States		
	4.4	Implementation of ATFM framework at national level	Cont.	National ATFM framework	States		
Key Activity 5 Post Implementation Review of the	**5.1**	Post implementation review	Each 3 months	Post Implementation review	ATFM Core Team		
	5.2	Improvement of the ATFM Regional Framework and Common Operating Procedures	TBD 2022	Proposal for improved ATFM Regional Framework and Common Operating	ATFM TF	ATFM Core Team	

Key Activities	Action		Target date	Deliverable	Champion	Supported by	Status / RMK
	No	Description					
MID ATFM Regional Framework				Procedures			
	5.3	Review and continuous improvement of the ATFM Implementation in the MID Region with consideration of establishment of centralized ATFM system for the MID Region	TBD	Continuous improvement	ATFM TF	ATFM Core Team	
Key Activity 6 Training and raising awareness related to ATFM	**6.1**	Development of National ATFM Implementation Plan and Training Programme Template for qualifying ATFM Specialist	TBD 2021	Training Programme Template for ATFM Specialist	ATFM TF / ATFM Core Team		
	6.2	Development of working arrangement for the ATFM Visits to States that would include ATFM Workshop and/or training courses	TBD 2021	working arrangement for the ATFM Visits	ATFM TF / ATFM Core Team		
	6.3	Organizing an ATFM Workshop with the planned A-CDM Workshop	21-23 Oct 2019	A-CDM/ATFM Workshop	ICAO/ACAO	ATFM TF	Completed
	6.4	Organizing of ATFM Workshop/Training Courses	TBD 2021	ATFM Training Courses	ICAO/ACAO	TBD	
	6.5	Conduct ATFM Support visits to States	TBD 2021	ATFM Support visits	ATFM support Team	TBD	
	6.6	Conduct familiarization visits/webinars of ICAO ATM/CDM CADENA, Singapore, India, EUROCONTROL, FAA, etc.	TBD	ATFM Familiarization Visits	ACAO ICAO		

APPENDIX 5.2N

FWC2022 ACTION PLAN

Action		Target date	Deliverable	Champion	Supported by	Status / remarks
No.	**Description**					
1.	Prepare a working paper on the outcome of the FWC2022 to MIDANPIRG/17	30 Mar 2019	WP to MIDANPIRG Combined with ATFM WP	Secretariat	Chairman	Completed
2.	Task the MIDRMA to carry out an airspace assessment for the MID Region based on the anticipated traffic flow during the FWC2022	18 Apr 2019	MIDANPIRG Conclusion	MIDANPIRG	ICAO MID	Completed, Conclusion 17/24
3.	Initial FWC2022 Roadmap and Operation plan principles to be presented on FWC2022 TF/4 meeting	22 Sep 2020		Qatar		Completed
4.	Airspace assessment study and tool developer meeting to review the offer and agree on the details	1 Oct 2020	Detailed requirements, deliverables and timelines. Legal and financial responsibilities	Qatar, MIDRMA	ICAO MID	Completed
5.	Provide the forecasted FWC2022 FPL/Traffic data to the MIDRMA using the Traffic Data Sample template	15 Oct 2020	Forecasted FWC2022 FPL/Traffic data for at least 10 days	Qatar	MIDRMA	Completed, Revised version on going.
6.	Assess the potential impact on traffic flows **within the RVSM Airspace**	Mar 2021	FWC2022 RVSM Airspace assessment	MIDRMA	Qatar	On-going, Conclusion 18/30
7.	Present the results of the airspace assessment to the FWC2022 TF/5 meeting	23 – 24 Mar 2021	WP/PPT	MIDRMA	ICAO MID	On-going
8.	Prepare an initial FWC2022 Roadmap and Operational Plan to be shared with ATFM Core Team that includes all required procedures, action plan, contingency measures, etc.	31 Oct 2020	Initial FWC2022 Roadmap and Operational Plan	Qatar	Core team	Completed
9.	draft FWC2022 Roadmap and Operational Plan to be presented to the FWC2022 TF/5 meeting	23 – 24 Mar 2021	WP/PPT Draft FWC2022 Roadmap and Operational Plan	FWC2022 Chairman		On-going

Action		Target date	Deliverable	Champion	Supported by	Status / remarks
No.	**Description**					
10.	Enhance the draft FWC2022 Roadmap and Operational Plan to be reviewed by ATM SG/7	15 Dec 2020	Enhanced the draft FWC2022 Roadmap and Operational Plan	Core Team		
11.	Present FWC2022 Roadmap, Operational Plan and Airspace structure assessment to MIDANPIRG/19	Feb 2022	WP	Chairman	ICAO	
12.	Conduct familiarization visit(s) to State(s) or Organizations that would be managing major events	TBD	Familiarization visit(s)	Qatar and Members of FWC2022 TF, as required	FAA EUROCONTROL CANSO AEROTHAI	

APPENDIX 5.2O

MID REGION SAR AGREEMENT STATUS BETWEEN ANSPS/ACCS

As of Feb 2020

STATE	CORRESPONDING STATES			REMARKS*
BAHRAIN	☒ IRAN ☒ SAUDI ARABIA	☒ KUWAIT ☒ UAE	☐ QATAR	4/5
EGYPT	☒ CYPRUS ☐ JORDAN ☐ SUDAN	☐ GREECE ☒ LYBIA	☐ Israel ☐ SAUDI ARABIA	2/7
IRAN	☒ ARMENIA ☒ BAHRAIN ☒ OMAN ☐ TURKMANISTAN	☒ AZERBAIJAN ☒ IRAQ ☐ PAKISTAN ☒ UAE	☐ AFGHANISTAN ☒ KUWAIT ☐ TURKEY	7/11
IRAQ	☒ IRAN ☒ JORDAN	☐ KUWAIT ☐ SAUDI ARABIA	☐ SYRIA ☐ TURKEY	2/6
JORDAN	☐ EGYPT ☒ IRAQ	☐ ISRAEL ☒ SAUDI ARABIA	☐ SYRIA	2/5
KUWAIT	☒ BAHRAIN ☒ IRAN	☐ IRAQ	☒ SAUDI ARABIA	3/4
LEBANON	☒ CYPRUS	☐ SYRIA		1/2
LIBYA	☐ ALGERIA ☐ CHAD ☐ EGYPT	☐ MALTA ☐ NIGER	☐ SUDAN ☐ TUNIS	0/7
OMAN	☐ INDIA ☒IRAN	☒ SAUDI ARABIA ☐ PAKISTAN	☐ UAE ☐ YEMEN	2/6
QATAR	☐ BAHRAIN	☐ SAUDI ARABIA	☐ UAE	0/3
SAUDI ARABIA	☒ BAHRAIN ☐ IRAQ ☒ OMAN ☐ UAE	☐ EGYPT ☒ JORDAN ☐ Qatar ☐ YEMEN	☐ ERITREA ☒ KUWAIT ☐ SUDAN	4/11
SUDAN	☐ CENTRAL AFRICAN ☐ CHAD ☐ EGYPT	☒ ERITREA ☒ ETHIOPIA ☐ LIBYA	☐ SAUDI ARABIA ☐ SOUTH SUDAN	2/8
SYRIA	☐ IRAQ ☐ JORDAN	☐ LEBANON ☒ CYPRUS	☒ TURKEY	2/5
UAE	☒ BAHRAIN ☒ IRAN	☐ OMAN ☐ SAUDI ARABIA	☐ QATAR	2/5
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 5.2P

MID ROC Plan

AMHS Plan for ROC in Jeddah and Bahrain					
	Task	**Timeframe**	**Assigned to**	**Champion**	**Status**
	AMHS Intra-regional Trunk Connections				
1	Establish Jeddah – Beirut IP Network.	Jul 2015	Saudi Lebanon	IM MS	Completed
2	Establish Bahrain – Beirut IP Network.	Feb 2016	Bahrain Lebanon	YH MS	Completed
3	Establish Cairo – Beirut IP Network.	July 2016	Egypt Lebanon	AF//MR MS	Completed
4	Establish Bahrain – Jeddah IP Network.	Mar 2016	Bahrain Saudi	IM YH	Completed
5	Perform the Interoperability test between Jeddah and Beirut COM Centers.	July 2015	Saudi Lebanon	IB MS	Completed
6	Perform the Interoperability test between Bahrain and Beirut COM Centers.	July 2016	Bahrain Lebanon	MS YH	Completed
7	Perform the Interoperability test between Cairo and Beirut COM Centers	July 2016	Egypt Lebanon	AF/TZ/MR MS/EK	Completed
8	Perform the Interoperability test between Bahrain and Jeddah COM Centers.	15 October 2020	Bahrain Saudi	YM AA	Completed
9	Perform the Pre-operational test between Jeddah and Beirut COM Centers.	July2015	Saudi Lebanon	IM MS	Completed
10	Perform the Pre-operational test between Bahrain and Beirut COM Centers.	July 2016	Bahrain Lebanon	YH MS	Completed
11	Perform the Pre-operational test between Cairo and Beirut COM Centers.	March 2017	Egypt Lebanon	AF/ /MR MS/EK	Completed
12	Perform the Pre-operational test between Bahrain and Saudi COM Centers.	25 October 2020	Bahrain Saudi	YM IM	Completed
13	Place the AMHS link into operation between Jeddah and Beirut COM centers, and updating the Routing tables.	July 2015	Saudi Lebanon MID AMC	IM MS/EK MN	Completed July, 2015
14	Place the AMHS link into operation between Bahrain and Beirut COM centers, and updating the Routing tables.	July 2016	Bahrain Lebanon MID AMC	YH MS/EK MN	Completed On 3/5/2016
15	Place the AMHS link into operation between Cairo and Beirut COM centers, and updating the Routing tables.	April 2017	Egypt Lebanon MID AMC	AF/TZ/MR MS/EK MN	completed

AMHS Plan for ROC in Jeddah and Bahrain					
	Task	**Timeframe**	**Assigned to**	**Champion**	**Status**
	AMHS Intra-regional Trunk Connections				
16	Evaluate the Trunks connections bandwidth and increase it if required between (Bahrain, Beirut, Cairo and Jeddah).	Q4 2021	Bahrain Beirut Cairo Jeddah	YH MS/EK AF/TZ IM	
	The AMHS Interconnection with EUR Region Depends on Nicosia and Athens				
17	Establish Cairo – Tunis IP Network.	*March2016 July 2016*		AF/TZ/MR IB/MA	completed
18	Establish Nicosia – Beirut IP Network.	Q3 2021		MS/EK	Lebanon is ready to connect
19	Establish Nicosia – Jeddah IP Network.	Q3 2021		IM	Saudi Arabia is ready to connect
20	Establish Bahrain – Nicosia IP Network.	Q3 2021		AD	Bahrain is ready to connect
21	Establish Cairo – Athens IP Network.	Dec 2016		AF/TZ/MR	completed
22	Perform the Interoperability test between Cairo and Tunis COM Centers.	*April 2016 August 2016*		AF/ /MR IB/MA	Completed
23	Perform the pre operational test between Cairo and Tunis COM Centers.	*Q3 2016*		AF/ /MR IB/MA	Completed
24	Place the AMHS link into operation between Cairo and Tunis COM Centers, and updating the Routing tables.	*Aug 2016*		AF/ /MR IB/MA	completed
25	Perform the Interoperability test between Athens and Cairo COM Centers.	Mar 2017		AF/TZ/MR IB/MA	completed
26	Perform the Interoperability test between Bahrain and Nicosia COM Centers.	Q3 2021		AD	Bahrain is ready to connect
27	Perform the Interoperability test between Nicosia and Jeddah COM Centers.	Q3 2021		IM	Saudi Arabia is ready to connect
28	Perform the Interoperability test between Nicosia and Beirut COM Centers.	Q3 2021		MS/EK	Lebanon is ready to connect
29	Perform the Pre-operational test between Athens and Cairo COM Centers.	Mar 2017		AF/TZ/MR	Completed
30	Perform the Pre-operational test between Bahrain and Nicosia COM Centers.	Q3 2021		YH	Bahrain is ready to connect
31	Perform the Pre-operational test between Nicosia and Beirut COM Centers.	Q3 2021		MS/EK	Lebanon is ready to connect

AMHS Plan for ROC in Jeddah and Bahrain					
	Task	**Timeframe**	**Assigned to**	**Champion**	**Status**
	AMHS Intra-regional Trunk Connections				
32	Perform the Pre-operational test between Nicosia and Jeddah COM Centers.	Q3 2021		IM	Saudi Arabia is ready to connect
33	Place the AMHS link into operation between Athens and Cairo COM Centers, and updating the Routing tables.	Q1 2017		MIDAMC AF/ /MR	Completed
34	Place the AMHS link into operation between Bahrain and Nicosia COM Centers, and updating the Routing tables.	Q3 2021		MID AMC YH	
35	Place the AMHS link into operation between Nicosia and Jeddah COM Centers, and updating the Routing tables.	Q3 2021		MID AMC IM	
36	Place the AMHS link into operation between Nicosia and Beirut COM Centers, and updating the Routing tables.	Q3 2021		MS/EK	
37	Evaluate the inter-region connections bandwidth and increase it if required.	Q3 2021		MID AMC	
38	Transition of all regional AFTN/CIDIN Connections to AMHS.	Q3 2021	Bahrain UAE		1 intra-regional CIDIN connection remains

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MIDAMC Steering Group

(MIDAMC STG)

1. TERMS OF REFERENCE (TOR)

1.1 The Terms of Reference of the MIDAMC Steering are:

a) to promote the efficiency and safety of aeronautical fixed services in the MID Region through the operation and management, on a sound and efficient basis, of a permanent MID Regional ATS Messaging Management Center (MIDAMC);

b) foster the implementation of the Air traffic service Message handling service in the MID Region through provision of the guidance materials and running facilitation tools, utilizing the MIDAMC;

c) MIDAMC Steering Group will consist of a focal point from each Participating MID State who would represent the State and acts as the Steering Group Member;

d) MIDAMC Steering Group will be responsible for overall supervision, direction, evaluation of the MIDAMC project and will review/update the MIDAMC work plan whenever required;

e) the MID Region is considering the establishment of Reginal MID IP Network; the MIDAMC STG will drive the project which is called Common aeRonautical VPN (CRV), until the Operation Group is established; and

f) provide regular progress reports to the CNS SG, and MIDANPIRG concerning its work programme.

1.2 In order to meet the Terms of Reference, the MIDAMC Steering Group shall:

a) develop/update the accreditation procedure for all users on the MIDAMC;

b) develop and maintain guidance materials for MIDAMC users;

c) discuss and identify solution for operational problems may be arising;

d) provide support/guidance to States for AMHS Implementation, and monitor the AMHS activities;

e) assist and encourage States to conduct trial on Implementation of the ATS extended services, and identify operational requirements;

f) provide guidance/support to States on implementation of XML based data models (IWXXM, FIXM, AIXM,…etc) over AMHS;

g) monitor States' readiness to implement XML based data models over extended AMHS;

h) identify the need for any enhancement for the MIDAMC and prepare functional and technical specifications, and define its financial implications;

i) follow-up on ICAO standards and recommendations on the ATS messaging management;

j) define future liabilities and new participating States and ANSPs;

k) follow-up and review the work of similar groups in other ICAO Regions;

l) follow-up the implementation of IP Network in the MID Region, through joining relevant projects, like CRV and act as project manager; and

m) proposes appropriate actions for the early implementation also support the IP Network until the Operational Group is establish.

2. COMPOSITION

a) ICAO MID Regional Office;

b) Members appointed by the MIDANPIRG member States; and

c) other representatives, who could contribute to the activity of the Steering Group , could be invited to participate as observers, when required .

3. WORKING ARRANGEMENTS

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

3.2 Face-to-face meetings will be conducted when it is necessary to do so.

International Civil Aviation Organization

SUMMARY OF DISCUSSION
FLIGHT INSPECTION WEBINAR

(24-25 NOVEMBER 2020 11:00-13:00 UTC)

1. INTRODUCTION

1.1 The Flight Inspection Webinar was successfully held from 24 to 25 November 2020, 11:00-13:00 UTC using ZOOM facility. The Webinar was organized by the ICAO MID Regional Office, ICAO EUR/NAT Office and ACAO.

1.2 The objective of the Webinar was to raise awareness on Navigation Aids Flight Inspection issues in order to support States in improving their capacity to conduct the flight inspection activities in a more effective, efficient, safe and economical manner. The Webinar provided an opportunity to receive updates on ICAO provisions and guidance material related to the Navigation Aids Flight Inspection; and to share experience gained, challenges faced and best practices in resolving issues during the COVID-19 pandemic. Also, It provided a

1.3 Forum to share information pertaining to emerging technologies related to Navigation Aids Flight Inspection.

1.4 The Webinar was attended by a total of six hundred twenty-eight (628) participants.

1.5 The Webinar's materials including, presentations and the Q&A are available at https://www.icao.int/Meetings/webinar-series/Pages/NAV-AIDs-Flight-Inspection-and-Procedure-Validation.aspx

2. AGENDA

- Overview of relevant ICAO provisions
- Update on ICAO doc 8071 Vol I, II
- Update on ICAO doc 9906
- ICAO QRG (Quick Reference Guidance) on the periodicity of NAV AID flight inspection
- States experience on Navigation aids flight inspection (Iran, Jordan, Oman and France).

3. DISCUSSIONS

- The webinar was apprised of ICAO provisions related to Navigation aids flight inspection. The related USOAP CMA Protocol Questions were presented.

- The distinction between ICAO Doc 9906 Vol 5 and doc 8071 (flight inspection and flight validation) was highlighted.

- It was underlined that ICAO DOC 8071 is a guidance material to ensure continued compliance to Annex 10 during the operational service time, and should not be used for design assurance testing. So passing a flight check does not mean that the facility is inherently safe. If it has been proven to be safe by design, installed in an operational environment and regularly checked, it continue to be safe. (manufacture must demonstrate compliance with Annex 10)

- The webinar noted that the new version of Vol I include new text on the use of RPAS/ UAS for flight inspection.

- The webinar was informed that the goal of 8071 VOL I update was to ensure realignment with Annex 10 Vol. I updates and to resolve or at least improve long-standing issues of some debate in the flight inspection community.

- It was noted that the ICAO doc 8071 Vol II update include new material related to GBAS, ABAS and evolving testing toward engineering data analysis. New chapter on GNSS RFI measurement was added as well.

- The webinar was apprised of the Mitigation GNSS RFI Mitigation Plan published in ICAO Doc 9849, GNSS Manual and the RASG-MID RSA on GNSS vulnerabilities.

- The webinar noted that Efficient Aviation Operations nowadays are enabled by GNSS (PBN, ADS-B). It was highlighted that Inertia, DME/DME and ILS are the main alternative.

- It was noted that the most significant GNSS Operational issue today is RFI. Future aviation GNSS receivers may detect and downlink RFI information.

- The webinar noted that ICAO Doc 9906 Vol 5 is being updated. The update aims to permit cross-validation of flight procedure validation with proposer training and competence, and to be explain of the operational aspects (Flight validation aircraft, certification requirements, etc.).

- The webinar noted the content of the ICAO Quick Reference Guide (QRG) related to the Periodicity of flight inspection of Radio NAV AIDs

- The webinar was apprised of the need to follow engineering evaluation taking into account several factors to make decision on granting extension of the flight inspection periodicity interval beyond the nominal periods. The webinar noted possible mitigation action that can be implemented.

- It was noted that a precise and cost-effective method developed in France based on a small off-the-shelf customer drone used for PAPI inspection. The use of drones for VOR and ILS flight inspection is still under development.

- The webinar noted the content of the ICAO Quick Reference Guide (QRG) related to the Periodicity of flight inspection of Radio NAV AIDs

- The webinar was apprised of the need to follow engineering evaluation taking into account several factors to make decision on granting extension of the flight inspection periodicity interval beyond the nominal periods. The webinar noted possible mitigation action that can be implemented.

- It was noted that a precise and cost-effective method developed in France based on a small off-the-shelf customer drone used for PAPI inspection. The use of drones for VOR and ILS flight inspection is still under development.

- The webinar received presentation from Jordan on the analysis study conducted to determine the criteria to extend the nominal interval between flight inspections of selected facilities considering the safety aspects of the interruption.

- The meeting was apprised of the risk management methodology (Risk probability and severity, hazards identification and risk assessment) that was implemented by Jordan to make decision of periodicity interval extension. A course of actions have been developed and implemented during the extension period to ensure the stability of the navigation aids systems.

- The webinar was apprised of Oman experience in periodicity extension of the flight inspection from the regulatory and service provider perspectives.

- Oman presented challenges faced and benefits occurred related to flight inspection during the Pandemic.

- The webinar noted that Oman had developed procedure for determining and changing the test/inspection interval before the pandemic, which allow the service provider to get the extension approval following systematic approach and in a timely manner.

- The webinar was apprised of the method and criteria used by Iran as conduct Navigation Aids reliability assessment.

- It was noted that Iran CAO granted exemption from national regulation (CAD4410) and extended the periodicity interval up to 100% of the nominal values.

APPENDIX 5.2T

Surveillance Implementation Monitoring Table

EXPLANATION OF THE TABLE

Column

1 Name of the State / ATS Units where Radar service provided

2 Surveillance Gap
- Y – Yes, non-radar covered area (GAP) exist
- N – No, GAP areas not existed

3 Multi- Surveillance Data processing capability
- Y – Yes, implemented
- N – No, not implemented

4 Surveillance Sensor used
- Y – Yes, implemented
- N – No, not implemented

5 Dual Surveillance sources
- Y – Yes, available
- N – No, not available

6 Issuance of ADS-B Carriage Mandate
- N – No, not issued
- Date – effective date of ADS-B carriage mandate
- Reference - link to mandate regulation

ATS Units Served	Surveillance Gaps	Multi-Surveillance Data Processing Capability	Surveillance Sensor Used						Dual Surveillance Sources	ADS-B carriage mandate	
			PSR	SSR Mode A/C	SSR Mode S	MLAT	ADS-B	Data Sharing		Date	Reference
1	2	3	4						5	6	
Bahrain											
OBBI ACC (Bahrain)	N	Y	Y	Y	Y	Y	N	Y	Y		
OBBI APP	N	Y	Y	Y	Y	Y	N	Y	Y		
OBBI TWR/GND	N	Y	Y	Y	Y	Y	Y	Y	Y		
Egypt											
HECA ACC (Cairo)	Y	Y	N	Y	Y	N	N	Y	Y		
HECA APP	N	Y	Y	Y	Y	N	N	N	Y		
HECA TWR/GND	N	Y	Y	Y	Y	Y	N	N	Y		
HELX APP (Luxor)	N	Y	N	Y	N	N	N	N	N		
HELX TWR/GND	N	Y	N	Y	Y	N	N	N	N		
HESN APP (Aswan)	N	Y	N	Y	N	N	N	N	N		
HESN TWR/GND	N	Y	N	Y	N	N	N	N	N		
HEBA APP (Alexandria)	N	Y	Y	Y	Y	N	Y	N	N		
HEBA TWR/GND	N	Y	Y	Y	Y	N	Y	N	N		
HEGN APP (Hurghada)	N	Y	Y	Y	Y	N	N	N	Y		
HEGN TWR/GND	N	Y	Y	Y	Y	N	N	N	N		

HESH APP (Sharm Elsheikh)	N	Y	N	Y	N	N	N	N	N		
HESH TWR/GND	N	Y	N	Y	N	N	N	N	N		
HEMA APP (Marsa Alam)											
HEMA TWR/GND											
Iran											
Tehran ACC	Y	Y	Y	Y	N	N	N	N	Y		
Esfahan APP	N	Y	Y	Y	N	N	N	N	Y		
Mashhad APP	N	Y	Y	Y	N	N	N	N	Y		
Mehrabad APP	N	Y	Y	Y	N	N	N	N	Y		
Shiraz APP	N	Y	Y	Y	N	N	N	N	Y		
OIIE TWR/GND	N	Y	Y	Y	N	N	N	N	Y		
OIII TWR/GND	N	Y	Y	Y	N	N	N	N	Y		
OIFM TWR/GND	N	Y	Y	Y	N	N	N	N	Y		
OIMM TWR/GND	N	Y	Y	Y	N	N	N	N	Y		
OISS TWR/GND	N	Y	Y	Y	N	N	N	N	Y		
Iraq											
Baghdad ACC	Y	Y	Y	Y	Y	N	N	N			
Baghdad APP	Y	Y	Y	Y	Y	N	N	N			
ORBS TWR/GND	N	Y	Y	Y	Y	N	N	N			
Jordan											
OJAC ACC	Y	Y	N	Y	Y	N	Y	N	Y		

(Amman)										
OJAI APP	N	Y	N	Y	Y	N	Y	N	Y	
OJAI TWR/GND	N	Y	N	Y	Y	N	Y	N	Y	
OJAQ APP (Aqaba)										
OJAQ TWR/GND	N	Y	N	N	N	N	Y	N	N	
Kuwait										
OKBK ACC (Kuwait)	N	Y			Y	N			Y	
OKBK APP	N	Y			Y	N			Y	
OKBK TWR/GND	N	Y				N				
Lebanon										
OLBA ACC (Beirut)	N	Y	Y	Y	Y	N	N	Y	Y	
OLBA APP	N	Y	Y	Y	Y	N	N	Y	Y	
OLBA TWR/GND	N	Y	Y	Y	Y	N	N		Y	
Libya										
HLLT ACC (Triboli)	Y	N	N	N	N	N	N	N	N	
HLLS	Y	N	N	N	N	N	N	N	N	
HLLB	Y	N	N	N	N	N	N	N	N	
Oman										
OOMS ACC	N	Y	Y	Y	Y	N	N	N	Y	

(Muscat)											
OOMS APP	N	Y	Y	Y	Y	N	N	N	Y		
OOMS TWR/GND	N	Y	Y	Y	Y	N	N	N	Y		
OOSA APP (Salalah)	N	Y	Y	Y	Y	N	Y	N	Y		
OOSA TWR/GND	N	Y	Y	Y	Y	N	Y	N	Y		
Qatar											
OTBD APP (Doha)	N	Y	Y	Y	Y	Y	Y	Y	Y		
OTBD TWR/GND	N	Y	Y	Y	Y	Y	Y	Y	Y		
OTHH TWR/GND	N	Y	Y	Y	Y	Y	Y	Y	Y		
Saudi Arabia										1 January 2023	GACAR Part 91 (OEJD A1433/20)
OEJN ACC (Jeddah)	N	Y	Y	Y	Y	N	N	N	Y		
OEJN APP	N	Y	Y	Y	Y	N	N	N	Y		
OEJN TWR/GND	N	Y	Y	Y	Y	Y	Y	N	Y		
OERK ACC (Riyadh)	N	Y	Y	Y	Y	N	N	N	Y		
OERK APP	N	Y	Y	Y	Y	N	N	N	Y		
OERK TWR/GND	N	Y	Y	Y	Y	Y	Y	N	Y		
OEMA APP (Madinah)	Y	Y	Y	Y	Y	N	N	N	N		
OEMA TWR/GND	N	Y	Y	Y	Y	Y	Y	N	Y		

OEDF APP (Dammam)	N	Y	Y	Y	Y	N	N	N	Y		
OEDF TWR/GND	N	Y	Y	Y	Y	Y	Y	N	Y		
Sudan											
HSSS ACC (Khartoum)	Y	Y			Y			Y	Y		
HSSS APP					Y			Y	Y		
HSSS TWR/GND								Y			
Syria											
OSDI ACC (Damascus)	Y				N	N	N				
OSDI APP	Y										
UAE										2 Dec 2021	https://www.gcaa.gov.ae/en/ePublication/Pages/CARs.aspx?CertID=CAR
SZC	N	Y	N	Y	Y	N	Y	Y	Y		
OMAL APP (Al Ain)	N	Y	N	Y	Y	N	N	Y	Y		
OMAE Radar (Abu Dhabi)	N	Y	N	Y	Y	Y	Y	Y	Y		
OMAE TWR/GND	N	Y	N	Y	Y	Y	Y	Y	Y		
OMDB Radar (Dubai)	N	Y	Y	Y	Y	Y	Y	Y	Y		
OMDB TWR/GND	N	Y	Y	Y	Y	Y	Y	Y	Y		

OMDW APP (Al Maktoum)	N	Y	Y	Y	Y	Y	Y	Y	Y		
OMFJ APP (Fujairah)	N	Y	N	N	N	Y	Y	Y	Y		
OMRK TWR/GND (RAS AL KHAIMAH)	N	Y	N	Y	Y	N	Y	Y	Y		
Yemen											
Sanaa ACC	Y	N	N	N	N	N	N	N	N		

APPENDIX 5.3A

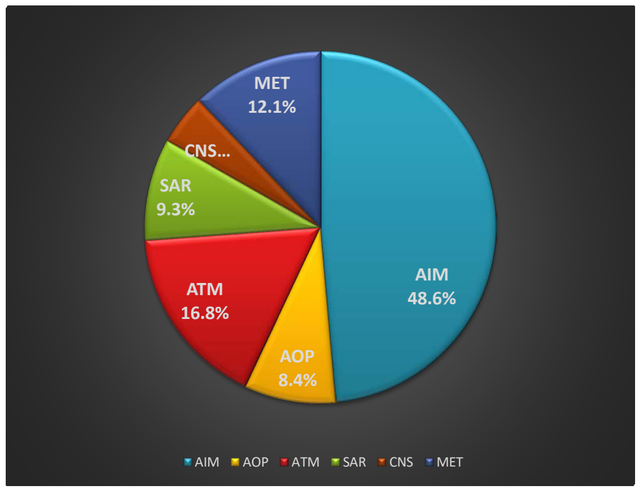
APPENDIX 5.3A

AIR NAVIGATION DEFICIENCIES IN THE THE MID REGION

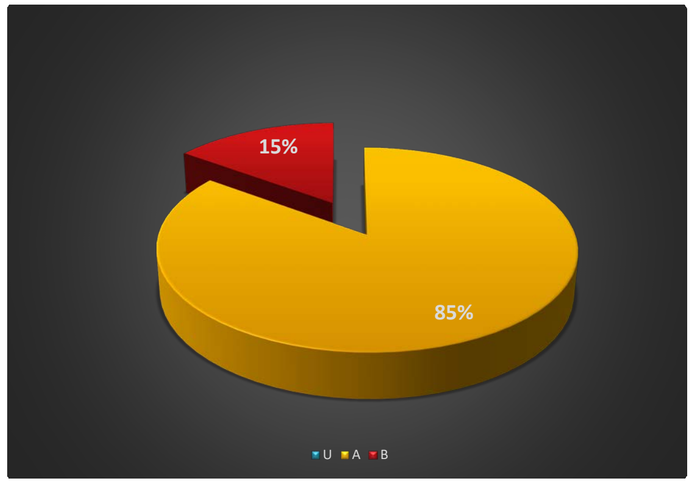
STATE	AIM							Total AIM	AOP							Total AOP	ATM							Total ATM	SAR							Total SAR	CNS							Total CNS	MET							Total MET
	Priority			Rational					Priority			Rational					Priority			Rational					Priority			Rational					Priority			Rational					Priority			Rational				
	U	A	B	F	H	S	O		U	A	B	F	H	S	O		U	A	B	F	H	S	O		U	A	B	F	H	S	O		U	A	B	F	H	S	O		U	A	B	F	H	S	O	
Bahrain								0								0								0								0								0								0
Egypt		2					2	2								0								0								0								0								0
Iran		3					3	3		1		1	1			1		0	1		1	1	2	1								0								0								0
Iraq		6	1	5	5	1	6	7		1		1	1		1	1		1	3			3	1	4		2					2	2								0		2				2	2
Jordan		2	1	3	3			3								0		1			1			1								0								0								0
Kuwait								0								0		0				1		0		1					1	1			1				1	1							0
Lebanon		3	1		2		2	4		1		1	1			1		1				1		1		1					1	1			1				1	1		2				2	2
Libya		5	1				6	6		1		1	1	1		1		2			1	1	2	2		2			2	2	2	2		1					1	1		2				2	2
Oman		4					4	4								0								0								0			1					1	1		1				1	1
Qatar								0								0		1				1		1								0								0								0
Saudi Arabia		2					2	2								0		1				1		1								0								0								0
Sudan		2					3	2		1		1	1			1		1			1	1	1	1								0								0								0
Syria		8	1	6	7	1	2	9		3		3	3			3		2	2		2	2	1	4		2					2	2								0		3				3	3
UAE		2					2	2								0		1	1			1	1	2								0								0								0
Yemen		7	1	4	2		4	8		1		1	1			1								0		2					2	2		1					1	1		3				3	3
Total	0	46	6	18	19	2	36	52	0	9	0	9	9	1	1	9	0	11	7	0	6	13	10	18	0	10	0	0	2	2	10	10	0	2	3	0	0	0	5	5	0	13	0	0	0	0	13	13

TOTAL DEFICIENCIES:107

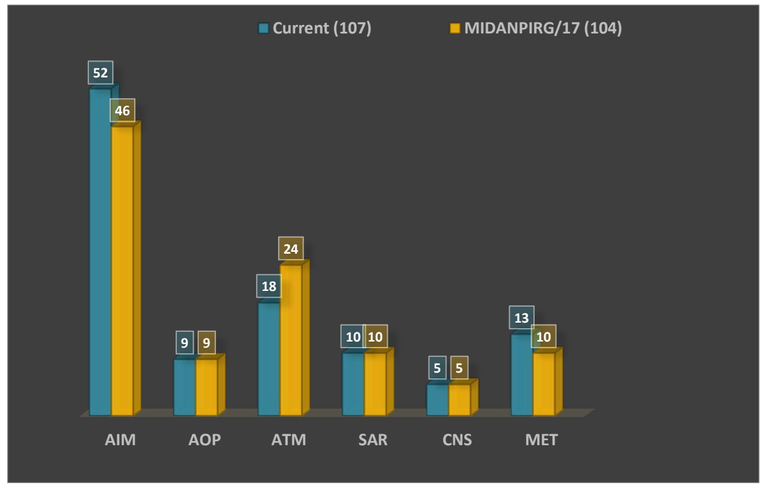
Distribution of Air Navigation deficiencies by field in %

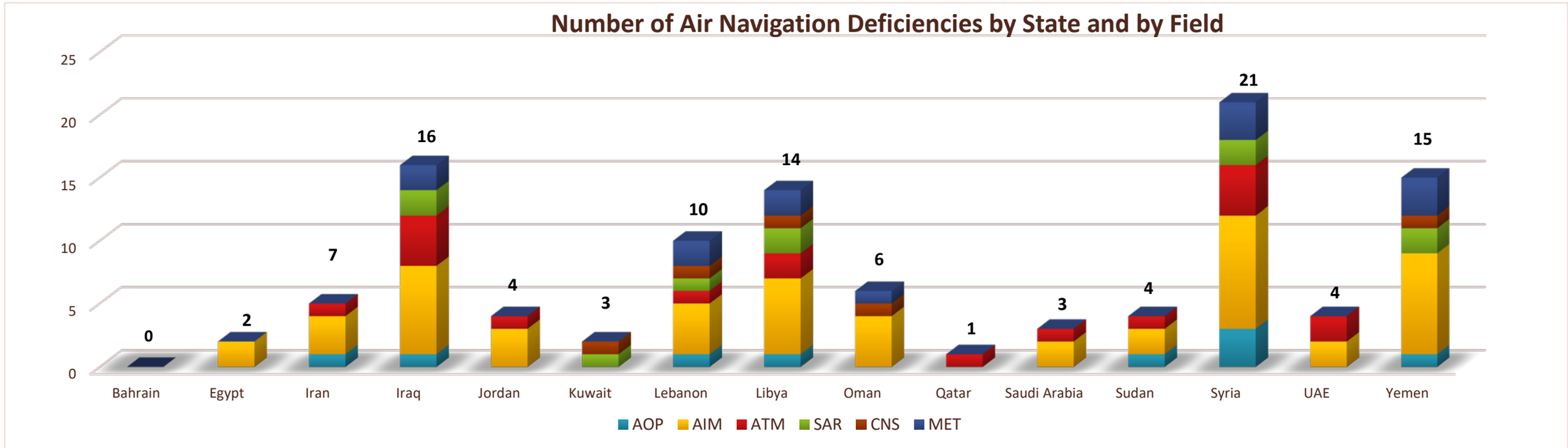


Distribution of Air navigation deficiencies by priority in %



Reported Deficiencies by field (MIDANPIRG/18 & MIDANPIRG/17)





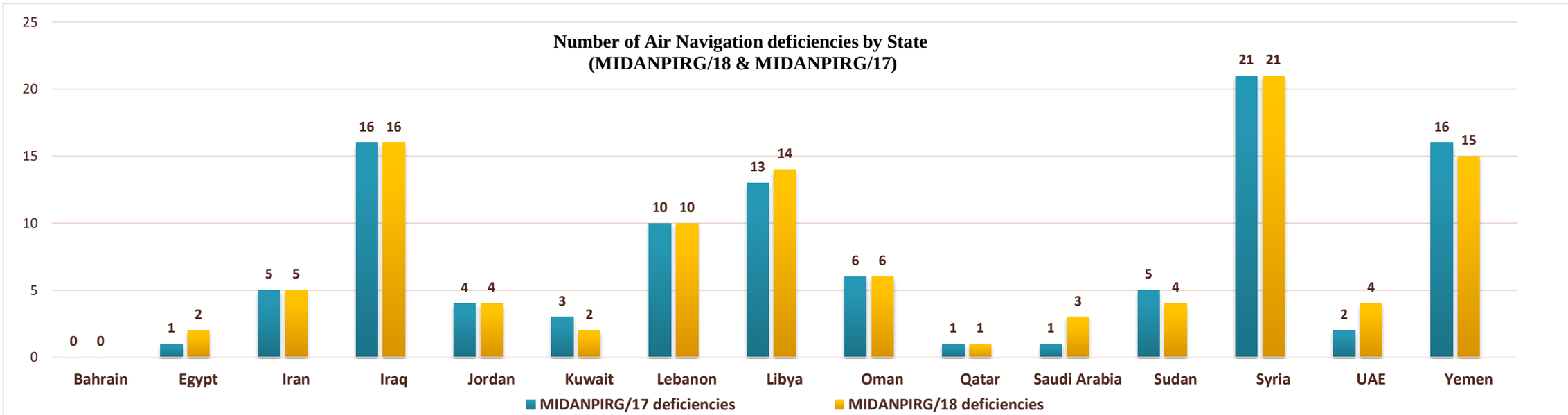
Deficiencies approved by MIDANPIRG/18

	Bahrain	Egypt	Iran	Iraq	Jordan	Kuwait	Lebanon	Libya	Oman	Qatar	Saudi Arabia	Sudan	Syria	UAE	Yemen	Total
AOP	0	0	1	1	0	0	1	1	0	0	0	1	3	0	1	**9**
AIM	0	2	3	7	3	0	4	6	4	0	2	2	9	2	8	**52**
ATM	0	0	1	4	1	0	1	2	0	1	1	1	4	2	0	**18**
SAR	0	0	0	2	0	1	1	2	0	0	0	0	2	0	2	**10**
CNS	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	**5**
MET	0	0	0	2	0	0	2	2	1	0	0	0	3	0	3	**13**
TOTAL	**0**	**2**	**5**	**16**	**4**	**2**	**10**	**14**	**6**	**1**	**3**	**4**	**21**	**4**	**15**	**107**

Deficiencies approved by MIDANPIRG/17

	Bahrain	Egypt	Iran	Iraq	Jordan	Kuwait	Lebanon	Libya	Oman	Qatar	Saudi Arabia	Sudan	Syria	UAE	Yemen	Total
AOP	0	0	1	1	0	0	1	1	0	0	0	1	3	0	1	**9**
AIM	0	1	1	7	3	0	4	6	4	0	0	3	9	0	8	**46**
ATM	0	0	3	5	1	1	1	2	0	1	1	1	4	2	2	**24**
SAR	0	0	0	2	0	1	1	2	0	0	0	0	2	0	2	**10**
CNS	0	0	0	0	0	1	1	1	1	0	0	0	0	0	1	**5**
MET	0	0	0	1	0	0	2	1	1	0	0	0	3	0	2	**10**
TOTAL	0	1	5	16	4	3	10	13	6	1	1	5	21	2	16	**104**

	Bahrain	Egypt	Iran	Iraq	Jordan	Kuwait	Lebanon	Libya	Oman	Qatar	Saudi Arabia	Sudan	Syria	UAE	Yemen	Total
MIDANPIRG/17 deficiencies	**0**	**1**	**5**	**16**	**4**	**3**	**10**	**13**	**6**	**1**	**1**	**5**	**21**	**2**	**16**	**104**
MIDANPIRG/18 deficiencies	**0**	**2**	**5**	**16**	**4**	**2**	**10**	**14**	**6**	**1**	**3**	**4**	**21**	**4**	**15**	**107**



APPENDIX 5.4A

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

PROCEDURAL HANDBOOK

PART II

WORKING ARRANGEMENTS

3. Administration of the Group

3.1 The Group shall be administered as follows:

a) by a Chairperson elected from the Representatives designated by Member States of the Group. A First and Second Vice-Chairperson shall also be elected from the said Representatives; and

b) by a Secretary designated by the Secretary General of ICAO. In the execution of his duties the Secretary will be supported by the MID Regional Office.

3.2 The Chairperson, in close co-operation with the Secretary, shall make all necessary arrangements for the most efficient working of the Group and facilitate the work of the meeting so as to encourage consensus or clearly identify barriers to consensus. The tasks of the Chairperson include ensuring the efficient conduct of the meeting, ensuring that the tasks associated with the work programme are addressed or reported upon during the course of the meeting. The Chairperson may make decisions regarding the conduct of the meeting and, in cases where it is not possible to reach consensus, determine the recommendation(s) that will be made by the meeting. The Group shall at all times work with a minimum of formality and paperwork (paperless meetings).

3.3 The Vice-Chairperson will be called upon to preside over the meeting should circumstances prevent the Chairperson from being present at the meeting. The Vice-Chairperson may also be requested to support the Chairperson in his/her role, taking over some of the Chairperson’s workload whenever appropriate. The Vice-Chairperson does not automatically succeed as Chairperson at the conclusion of the term of the incumbent Chairperson.

3.4. Guidelines for chairperson election

3.4.1 Chairperson personal qualities:

a. *good communicator and listener;*

b. *impartial and objective;*

c. *able to speak clearly and succinctly;*

d. *able to draw together and summarise differing opinions;*

e. *punctual - start and finish on time;*

f. *sensitive and shows interest in member's viewpoints;*

g. *tactful and approachable; and*

h. *a clear sense of direction and accountability - ensures that tasks associated with the work programme are addressed and reported upon.*

3.4.2 ***Chairperson Professional background****:*

a. extensive experience in a civil aviation authority, airport, airline, air navigation services or similar aviation-related organization;

b. practical experience in the planning and administration of civil aviation programmes rising to an executive level of responsibility; and

c. have a good understanding of ICAO's role.

3.4.3 Chairperson experience with the MIDANPIRG and its Contributory Bodies:

a. have participated and contributed to work of the Group/Task Force for a minimum of 4 meetings;

b. have a clear understanding of and adhere to the terms of reference of the Group/Task Force; and

c. have sound knowledge of the MIDANPIRG working and reporting structure.

APPENDIX 5.4B

Terms of Reference of MIDANPIRG:

1. MEMBERSHIP

1.1 All ICAO Contracting States, recognized by ICAO, within the area of accreditation of the ICAO MID Regional Office shall be members of the Middle East Air Navigation Planning and Implementation Regional Group (MIDANPIRG).

2. PARTICIPATION

2.1 In addition to States, the importance of a collaborative and proactive role by airspace users, international and regional organizations, and industry should be recognized due to their involvement in the rapid pace of technological development, expertise and other opportunities for sharing of resources.

2.2 MIDANPIRG meetings are open to all members. Each State member should be represented by a senior-level delegate nominated by the State, preferably from the civil aviation authority (CAA) in order to support related policy-making within the State. A delegate may be supported by an alternate delegate and/or advisers with the requisite technical knowledge in the subject matters under consideration.

2.3 The CAAs should be supported by service providers (such as air navigation services providers, airport, operators, meteorological service providers, etc.) as advisers.

2.4 States located outside the area of accreditation of ICAO MID Regional Office can be invited on a case-by-case basis and in accordance with the *Regional Office Manual* to attend as observers.

2.5 International organizations recognized by the ICAO Council to participate in ICAO meetings should participate, as observers, in the MIDANPIRG meetings, and be encouraged to do so. Other stakeholders may be invited as observers, when required, to contribute to the work of the MIDANPIRG.

2.6 The participation of industry stakeholders should take into account relevant capabilities such as an involvement in the rapid pace of technological development, specific knowledge and expertise, and other opportunities including sharing of resources.

2.7 Civil aviation commissions/conferences in particular the Arab Civil Aviation Organization (ACAO), may be invited to participate in the work of the MIDANPIRG.

2.8 The members and observers will serve as partners in MIDANPIRG, and their joint commitment is fundamental for success in improving implementation and safety worldwide.

2.9 MIDANPIRG meetings should be live-streamed, to the extent possible, to enable additional State participants to follow the proceedings.

3. WORKING ARRANGEMENTS

3.1 Structure

3.1.1 MIDANPIRG has the obligation to apply the most effective and efficient organizational structure and meeting modalities that best suit the characteristics of the region's implementation work programme while maintaining to the extent possible, alignment with these Terms of Reference, the regional work programme and the Global Air Navigation Plan (GANP).

3.1.2 The ICAO MID Regional Director will serve as the Secretary of the MIDANPIRG.

3.1.3 The organization of the MIDANPIRG should address global and region-specific air navigation-related matters, and meetings should be closely coordinated between the MIDANPIRG and MID-RASG chairpersons and the Secretariat. MIDANPIRG and RASG-MID meetings should be held back-to-back or combined to facilitate coordination and to ensure the efficient use of resources.

3.1.4 The MIDANPIRG shall be administered by a chairperson and one or two vice-chairpersons elected from the State-nominated delegates present. The MIDANPIRG will establish the cycle of elections.

3.1.5 The MIDANPIRG will build on the work already done by States, ICAO Regional Offices and existing regional and sub-regional organizations to support the development, maintenance and implementation of an air navigation plan for the MID region.

3.1.6 MIDANPIRG contributory bodies may be created by the MIDANPIRG to discharge the MIDANPIRG work programme by working on defined subjects requiring detailed technical expertise. A contributory body shall only be formed when it has been clearly established that it is able to make a substantial contribution to the required work. A contributory body will be dissolved by the MIDANPIRG when it has completed its assigned tasks or if the tasks cannot be usefully continued.

3.1.7 Invitations to MIDANPIRG meetings must be issued at least three months in advance of the meeting to assist States to plan participation.

3.1.8 The Secretariat will review and update the MIDANPIRG Handbook periodically, and as required, to ensure a result-oriented approach.

3.1.9 Where the meeting is held in more than one ICAO working language, interpretation services shall be made available to facilitate participation in the deliberations and adoption of the report by all participants.

3.1.10 States, international organizations and industry are invited to submit working papers, research works, etc. in order to enhance the work of the MIDANPIRG

and its contributory bodies. To ensure proper time for consideration and good decision-making, the Secretary should ensure that all working papers are available at least fourteen days prior to the start of the meeting for consideration.

3.1.11 The frequency of the MIDANPIRG meetings will be on an annual basis.

3.2 Venue

3.2.1 MIDANPIRG meetings will be convened in the MID Regional Office, to the extent possible, to facilitate proper access by States. Approval to host MIDANPIRG meetings outside of the MID Regional Office must be obtained from the President of the Council.

3.2.2 The Secretary General will ensure the allocation of the necessary financial resources to host MIDANPIRG meetings.

3.2.3 MIDANPIRG contributory bodies may be convened at a different location, if required, to be determined by the Secretary and Chairperson of the MIDANPIRG, and contributory body. Venues shall be chosen with the primary aim of facilitating maximum State attendance.

3.3 State role

3.3.1 State CAAs, supported by service providers as necessary, should participate in the work of the MIDANPIRG and its contributory bodies to:

a) ensure the continuous and coherent development and implementation of regional air navigation plans (RANP) and report back on the key performance indicators (KPIs);

b) support the regional work programme with participation from the decision-making authority with the technical expertise necessary for the planning and implementation mechanism, thus supporting policy decisions at the State level;

c) enable coordination, at the national level, between the CAA, service providers and all other concerned stakeholders, and harmonization of the national air navigation plans (NANP) in line with the regional and global plans;

d) facilitate the implementation of GANP goals and targets;

e) report on the status of implementation, within the State, on a regular basis;

f) plan for basic services to be provided for international civil aviation in accordance with ICAO Standards within State national plans;

g) facilitate the development and establishment of Letters of Agreement and

bilateral or multilateral agreements;

h) mitigate deficiencies identified under the uniform methodology for the identification, assessment and reporting of air navigation deficiencies in a timely manner;

i) embrace a performance-based approach for implementation as highlighted in the Global Plans; and

j) ensure the inclusion of the regional priorities in the States' national implementation plans to the extent possible.

3.4 International organization and industry role

3.4.1 Industry, in particular airspace users, professional associations and organizations (such as Airports Council International (ACI), Civil Air Navigation Services Organisation (CANSO), International Federation of Air Line Pilots (IFALPA)' Associations, International Federation of Air Traffic Controllers' Associations (IFATCA), International Air Transport Association (IATA), etc.) should participate in the work of the MIDANPIRG and its contributory bodies, in order to support air navigation implementation and collaborative decision-making processes, taking into consideration the safety aspects of air navigation services.

3.4.2 Their focus should be on identifying regional requirements and ensuring that their available resources are adequately allocated.

3.5 Reporting

3.5.1 The MIDANPIRG reports outcomes to the ICAO Council through the Air Navigation Commission (ANC) as facilitated by the ICAO Secretariat.

3.5.2 MIDANPIRG meeting reports should be provided in a standardized format to the governing bodies of ICAO to identify regional and emerging challenges, and shall include as a minimum:

a) a brief history of the meeting (duration and agenda);

b) a list of meeting participants, affiliation and number of attendees;

c) a list of conclusions and decisions with a description of their rationale (what, when, why and how);

d) common implementation challenges identified amongst MIDANPIRG members and possible solutions, assistance required and estimated timelines to resolve, if applicable, by sub-region;

e) identification of and recommendations on particular actions or enhancements that would require consideration by the ANC and Council

to address particular challenges, including the need for amendment proposals to global provisions and guidance materials submitted by States;

f) a list of issues cross-referenced to actions to be taken by ICAO Headquarters and/or MID Regional Office;

g) based on the GANP, and associated KPIs and tools, report to the extent possible on the status of implementation of air navigation goals, targets and indicators, including the priorities set by the region in their regional air navigation plans exploring the use of regional dashboards to facilitate monitoring regional progress being made;

h) a list of items for coordination with the RASG-MID and a concise summary of the outcome of related discussions;

i) air navigation deficiencies identified and timelines for mitigation thereof; and

j) the work programme and future actions to be taken by the MIDANPIRG.

3.5.3 A technical officer from Headquarters (Air Navigation Bureau) will participate and provide support to the meeting and subsequently arrange for the presentation of reports, in coordination with the MID Regional Office and chairpersons of the MIDANPIRG, to the ANC and Council for review and harmonization.

3.5.4 The Draft MIDANPIRG report will be approved at the end of the meeting.

3.5.5 Headquarters will provide feedback to the MIDANPIRG highlighting the actions taken by the ANC and Council related to their previous meeting outcomes.

3.5.6 The MIDANPIRG will report to Council on an annual basis through the consolidated report on PIRGs and RASGs.

4. GLOBAL PLANS

4.1 In regard to Global Plans, the MIDANPIRG shall:

a) support implementation by States of the *Global Air Navigation Plan* (GANP, Doc 9750) taking into account aspects of the *Global Aviation Safety Plan* (GASP, Doc 10004) and Global Aviation Security Plan (GASeP) by ensuring effective coordination and cooperation between all States and stakeholders;

b) monitor and report the progress on the implementation by States of the GANP, and the regional objectives and priorities;

c) ensure continuous and coherent development of the regional air navigation plan,

Regional Supplementary Procedures (Doc 7030) and other relevant regional documentation, and propose amendments to reflect the changes in operational requirements in a manner that is harmonized with adjacent regions, consistent with ICAO Standards and Recommended Practises (SARPs), Procedures for Air Navigation Services (PANS) and the GANP;

d) provide feedback on the GANP implementation and propose amendments to the Global Plans as necessary to keep pace with the latest developments and ensure harmonization with regional and national plans;

e) in line with the GANP and regional priorities, identify specific deficiencies in the air navigation field, and propose mitigating actions and timelines to resolve deficiencies; and

f) verify the provision of air navigation facilities and services in accordance with global and regional requirements.

5. REGIONAL ACTIVITIES

5.1 In regard to regional activities, the MIDANPIRG shall:

a) serve as a regional cooperative forum that determines regional priorities, develops and maintains the regional air navigation plan and associated work programme based on the GANP and relevant ICAO Provisions;

b) facilitate the development and implementation by States of air navigation systems and services as identified in the regional air navigation plan and Doc 7030;

c) monitor and report on the status of implementation by States of the required air navigation facilities, services and procedures in the region, and identify the associated difficulties and deficiencies to be brought to the attention of the Council;

d) facilitate the development and implementation of Corrective Action Plans (CAPs) by States to resolve identified deficiencies, where necessary;

e) identify and report on regional and emerging air navigation challenges experienced that affect implementation of ICAO global provisions by States and measures undertaken or recommended to effectively address them;

f) facilitate the development and implementation of regional and national air navigation plans by States; and

g) assist Member States with guidance to implement complex aviation systems.

6. MIDANPIRG COORDINATION

6.1 In regard to coordination, the MIDANPIRG shall:

a) coordinate safety issues with the RASG-MID;

b) foster cooperation, information exchange, sharing of experiences and best practices among States and stakeholders;

c) provide a platform for regional coordination and cooperation amongst States and stakeholders for the continuous improvement of air navigation systems in the region with due consideration to harmonization of developments and deployments, intra- and interregional coordination, and interoperability;

d) ensure that all air navigation activities at the regional and sub-regional level are properly coordinated amongst role players to avoid duplication of efforts;

e) identify security, environmental and economic issues that may affect the operation of the air navigation system, and inform ICAO Secretariat accordingly for action; and

f) through the MIDANPIRG Secretary, inform the Directors General of Civil Aviation and related civil aviation commission/conferences of MIDANPIRG meeting results.

7. INTERREGIONAL COORDINATION

7.1 The MIDANPIRG shall:

a) ensure interregional coordination through formal and informal mechanisms, including the participation in meetings established for the purpose of coordinating PIRG and RASG activities, the GANP, regional air navigation plans and regional supplementary procedures (SUPPs); and

b) ensure coordination with informal groups, such as the South Atlantic Group (SAG), Informal South Pacific ATS Coordination Group (ISPACG) and Informal Pacific ATS Coordination Group (IPACG), to assure harmonized planning and smooth transition through regional interface areas.

a. ICAO Headquarters shall arrange a global coordination meeting between all PIRG and RASG chairpersons and secretaries on a biennial basis.

8. EXPANSION OF TERMS OF REFERENCE

8.1 The Terms of Reference above serve as a global basis for PIRG operations and may be further expanded by the MIDANPIRG, as required, to maintain the flexibility and efficiency of its work. Additional terms of reference adopted by the MIDANPIRG must be approved by the President of the Council and be included in the MIDANPIRG Procedural Handbook.

APPENDIX 5.4C

AERONAUTICAL INFORMATION MANAGEMENT SUB-GROUP (AIM SG)

1. TERMS OF REFERENCE

1.1 The Terms of Reference of the AIM Sub-Group are:

a) ensure that the implementation of AIM 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) framework and the MID Region Air Navigation Strategy;

b) monitor the status of implementation of the MID Region AIM-related ASBU Threads /elements included in the MID Region Air Navigation Strategy as well as other required AIM facilities and services; identify the associated difficulties and deficiencies and provide progress reports, as required;

c) keep under review the MID Region AIM performance objectives/priorities, develop action plans to achieve the agreed performance targets and propose changes to the MID Region AIM plans/priorities;

d) seek to achieve common understanding and support from all stakeholders involved in or affected by the AIM developments/activities in the MID Region;

e) provide a platform for harmonization of developments and deployments in the AIM domain;

f) monitor and review the latest developments in the area of AIM and procedure design issues associated to AIM, provide expert inputs for AIM-related issues; and propose solutions for meeting ATM operational requirements;

g) provide regular progress reports to the MIDANPIRG concerning its work programme; and

h) review periodically its Terms of Reference and propose amendments, as necessary.

1.2 In order to meet the Terms of Reference, the AIM Sub-Group shall:

a) monitor the status of implementation of the required AIM facilities, products and services in the MID Region;

b) assist States in the development of National AIM Plans/Roadmaps through the development and continuous update of the Regional AIM Roadmap identifying the priorities and timelines for implementation, in particular for the implementation of Digital Datasets;

c) assess and provide progress reports on the transition from AIS to AIM in the MID Region;

d) provide necessary assistance and guidance to States to ensure harmonization and interoperability in line with the GANP, the MID ANP and ASBU framework;

e) provide necessary inputs to the MID Region Air Navigation Strategy through the monitoring of the agreed Key Performance Indicators related to AIM;

f) identify and review those specific deficiencies and problems that constitute major obstacles to the provision of efficient AIM services, and recommend necessary remedial actions;

g) keep under review the adequacy of ICAO SARPs requirements in the area of AIM, taking into account, inter alia, changes in user requirements, the evolution of operational requirements and technological developments;

h) develop proposals for the updating of relevant ICAO documentation related to AIM, including the amendment of relevant parts of the MID ANP, as deemed necessary;

i) monitor and review technical and operating developments in the area of AIM and foster their implementation in the MID Region in a harmonized manner;

j) foster the integrated improvement of AIM services through proper training and qualification of the AIM personnel; and

k) Coordinate with relevant MIDANPIRG and RASG-MID Subsidiary bodies issues with common interests.

2. COMPOSITION

2.1 The Sub-Group will compose of:

a) MIDANPIRG Member States;

b) concerned International and Regional Organizations as observers; and

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

3. WORKING ARRANGEMENTS

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

3.2. Face-to-face meetings will be conducted when it is necessary to do so.

APPENDIX 5.4D

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) framework and the MID Region Air Navigation Strategy;

b) monitor the status of implementation of the MID Region ATM-related ASBU threads/elements 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;

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) Coordinate with relevant MIDANPIRG and RASG-MID Subsidiary bodies issues with common interests;

o) provide regular progress reports to the MIDANPIRG concerning its work programme; and

p) 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 framework;

b) provide necessary inputs to the MID Region 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.

3. Working Arrangements

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

facilities, particularly video-conferencing (Virtual Meetings) and e-mails.

3.2 Face-to-face meetings will be conducted when it is necessary to do so.

APPENDIX 5.4E

COMMUNICATION, NAVIGATION AND SURVEILLANCE SUB-GROUP (CNS SG)

1. TERMS OF REFERENCE

1.1 The Terms of Reference of the CNS Sub-Group are:

a) ensure that the implementation of CNS 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) framework and the MID Region Air Navigation Strategy;

b) monitor the status of implementation of the MID Region CNS-related ASBU Modules included in the MID Region Air Navigation Strategy as well as other required CNS supporting infrastructure, identify the associated difficulties and deficiencies and provide progress reports, as required;

c) keep under review the MID Region CNS performance objectives/priorities, develop action plans to achieve the agreed performance targets and propose changes to the MID Region CNS plans/priorities, modernization programmes through the MIDANPIRG, as appropriate;

d) seek to achieve common understanding and support from all stakeholders and involved in or affected by the CNS developments/activities in the MID Region;

e) provide a platform for harmonization of developments and deployments of CNS facilities and procedures within Region and inter regional;

f) monitor and review the latest developments in the area of CNS, provide expert inputs for CNS-related issues; and propose solutions for meeting ATM operational requirements;

g) follow-up the developments of ICAO position for future ITU World Radio Communication (WRC) Conferences and provide expert advises to States;

h) follow-up the operation of the MID ATS Message Management Center (MIDAMC);

i) provide regular progress reports to the MSG and MIDANPIRG concerning its work programme; and

j) review periodically its Terms of Reference and propose amendments, as necessary.

1.2 In order to meet the Terms of Reference, the CNS 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 framework;

b) provide necessary inputs to the MID Region Air Navigation Strategy through the monitoring of the agreed Key Performance Indicators related to CNS facilities and procedures;

c) identify and review those specific deficiencies and problems that constitute major obstacles to the provision of efficient CNS implementation, and recommend necessary remedial actions;

d) lead the work programme of the MID-AMC including the conduct of trainings and upgrades;

e) assist, coordinate, harmonize and support in the implementation of CNS facilities and procedures;

f) seek States support to ICAO Position at WRCs, and encourage States for the proper utilization of the Frequency Spectrum and Interrogation Code Allocations;

g) follow-up surveillance technologies implementation to be in line with the MID Region surveillance plan and the operational improvements in coordination with other Sub-Groups;

h) review, identify and address major issues in technical, operational, safety and regulatory aspects to facilitate the implementation or provision of efficient Surveillance services in the MID Region;

i) follow-up Global GNSS evolution, and provide assistance/guidance to states on available GNSS services;

j) address Datalink communication services and support implementation where operationally required;

k) review and identify inter-regional and intra-regional co-ordination issues in the field of CNS, harmonize and recommend actions to address those issues; and

l) Coordinate with relevant MIDANPIRG and RASG-MID Subsidiary bodies issues with common interests.

2. COMPOSITION

2.1 The Sub-Group is composed of:

a) MIDANPIRG Member States;

b) Concerned International and Regional Organizations as observers; and

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

3. WORKING ARRANGEMENTS

3.1 The Chairperson, in close co-operation with the Secretary, shall make all necessary arrangements for the most efficient working of the Subgroup. The Subgroup shall at all times conduct its activities in the

most efficient manner possible with a minimum of formality and paper work (paperless meetings). Permanent contact shall be maintained between the Chairperson, Secretary and Members of the Subgroup to advance the work. Best advantage should be taken of modern communications facilities, particularly video-conferencing (Virtual Meetings) and e-mails.

3.2. Face-to-face meetings will be conducted when it is necessary to do so.

APPENDIX 5.4F

METEOROLOGY SUB-GROUP (MET SG)

1. Terms of Reference

1.1 The terms of reference of the MET Sub-Group are:

a) ensure that the implementation of MET 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) framework and the MID Region Air Navigation Strategy;

b) monitor the status of implementation of the MID Region MET-related ASBU threads/elements included in the MID Region Air Navigation Strategy as well as other required MET facilities and services, identify the associated difficulties and deficiencies and provide progress reports, as required;

c) keep under review the MID Region MET performance objectives/priorities, develop action plans to achieve the agreed performance targets and propose changes to the MID Region MET plans/priorities, as appropriate;

d) seek to achieve common understanding and support from all stakeholders involved in or affected by the MET developments/activities in the MID Region;

e) provide a platform for harmonization of developments and deployments in the MET domain;

f) monitor and review the latest MET developments that support Air Navigation and provide expert inputs for the implementation of the Air Navigation Systems related to MET based on ATM operational requirements;

g) provide regular progress reports to MIDANPIRG concerning its work programme; and

h) review periodically its Terms of Reference and propose amendments, as necessary.

1.2 In order to meet the Terms of Reference, the MET Sub Group shall:

a) monitor the status of implementation of the required MET facilities and services in the MID Region;

b) provide necessary assistance and guidance to States to ensure harmonization and interoperability in line with the GANP, the MID ANP and ASBU framework;

c) provide necessary inputs to the MID Region Air Navigation Strategy through the monitoring of the agreed Key Performance Indicators related to MET;

d) identify and review those specific deficiencies and problems that constitute major obstacles to the provision of efficient MET services, and recommend necessary remedial actions;

e) keep under review the adequacy of ICAO SARPs requirements in the area of MET, taking

into account, inter alia, changes in user requirements, the evolution of operational requirements and technological developments;

f) develop proposals for the updating of relevant ICAO documentation related to MET, including the amendment of relevant parts of the MID ANP, as deemed necessary;

g) monitor and review technical and operating developments in the area of MET and foster their implementation in the MID Region in a harmonized manner;

h) foster the integrated improvement of MET services through proper training and qualification of the MET personnel;

i) coordinate with relevant MIDANPIRG and RASG-MID Subsidiary bodies for issues with common interests; and

j) liaise with other States providing services and/or serve as inter-regional exchange of meteorological information for international civil aviation (e.g. SADIS (U.K.), VAAC Toulouse (France), TCAC New Delhi (India), Regional OPMET Centre Vienna (Austria)).

2. COMPOSITION

2.1 The Sub-Group is composed of:

a) MIDANPIRG Member States;

b) World Meteorological Organization (WMO) and other concerned International and Regional Organizations as observers; and

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

3. WORKING ARRANGEMENTS

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

3.2 Face-to-face meetings will be conducted when it is necessary to do so.

APPENDIX 5.4G

PERFORMANCE BASED NAVIGATION SUB-GROUP (PBN SG)

1. Terms of Reference

1.1 The terms of reference of the PBN Sub-Group are:

a) ensure that the implementation of PBN 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) framework and the MID Region Air Navigation Strategy;

b) monitor the status of implementation of the MID Region PBN-related ASBU threads/elements included in the MID Region Air Navigation Strategy as well as other required PBN supporting infrastructure, identify the associated difficulties and deficiencies and provide progress reports, as required;

c) keep under review the MID Region PBN performance objectives/priorities, develop action plans to achieve the agreed performance targets and propose changes to the MID Region PBN plans/priorities, as appropriate;

d) seek to achieve common understanding and support from all stakeholders involved in or affected by the PBN and GNSS developments/activities in the MID Region;

e) provide a platform for harmonization of developments and deployments of PBN concentrating on PBN for approach and terminal areas;

f) monitor and review the latest developments in the area of PBN and procedure design, provide expert inputs for PBN-related issues; and propose solutions for meeting ATM operational requirements;

g) monitor and review the latest GNSS developments and activities;

h) provide regular progress reports to MIDANPIRG concerning its work programme; and

i) review periodically its Terms of Reference and propose amendments, as necessary.

1.2 In order to meet the Terms of Reference, the PBN 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 framework;

b) provide necessary inputs to the MID Region Air Navigation Strategy through the monitoring of the agreed Key Performance Indicators related to PBN;

c) identify and review those specific deficiencies and problems that constitute major obstacles to the provision of efficient PBN implementations, and recommend necessary remedial actions;

d) review and support the MID Flight Procedure Programme activities, as required, including coordination of capacity building activities related to training and qualification of the procedure design personnel and all other personnel involved in PBN implementation;

e) monitor the progress of studies, projects, trials and demonstrations by the MID Region States, and other ICAO Regions in PBN and GNSS; and

f) Coordinate with relevant MIDANPIRG and RASG-MID Subsidiary bodies issues with common interests.

2. Composition

2.1 The Sub-Group is composed of:

a) MIDANPIRG Member States;

b) concerned International and Regional Organizations as observers; and

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

3. WORKING ARRANGEMENTS

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

3.2 Face-to-face meetings will be conducted when it is necessary to do so.

ATTACHMENT A

ICAO MID

ATTACHMENT A

Eighteenth Meeting of the Middle East Air Navigation Planning and Implementation Regional Group

and Eighth Meeting of the Regional Aviation Safety Group-Middle East

(MIDANPIRG/18 & RASG-MID/8)

Virtual Meetings, 15 – 22 February 2021

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	Mr. Ahmed Mohammed Bucheeri	Chief , Air Traffic Management
	Mr. Abdulla Hasan Al Qadhi	Chief, AIM & Airspace Planning
	Mr. Ali Ahmed Mohammed	ANS Advisor
	Mr. Ahmed Mohammed Al-Shamlan	Head, Search and Rescue
	Mr. Ahmed Yousif Almalki	Head Shift
	Mr. Isa Mohamed Al-khamiri	Head of Safety Management & Quality
	Mr. Ahmed Ibrahim Ali	Head Shift
	Mr. Yaseen Hasan Al Sayed	Director of Air Navigation Systems
	Mr. Basem Salman Alasfoor	Director of Meteorology
	Mr. Khalid Hussain Yaseen	Chief of Met Operations & Observation
	Mr. Abdulaziz Ebrahim A. Albalooshi	MET IT Administrator
Egypt	H.E. Angie Elyazzy – REP	Representative of Egypt on the Council
	Mr. Tayseer Mohamed Abdel Kareem	ATS General Manager
	Mr. Samer Hussein Emam	G.M. Airspace Affairs and AIS
	Mr. Sherif Abdelrazek Aql Badr	Aeronautical Telecommunication Inspector
	Elsayed Abdulla Zidan	Senior AN Inspector
	Mr. Amr Mokhtar Mohamed	ANS Inspector
	Mr. Amr Ibrahim Abdel Latiff	ANS Inspector
	Mr. Ahmed Saied Abdel Monsef	Senior ANS Safety Oversight Inspector
	Mr. Ahmed Abdelwahab M. El Morady	Senior ANS/ATM Inspector
	Mr. Ahmed Mostafa M. Arman	Senior CNS Inspector
	Mr. Ahmed Mohammed Zoulfakar	Meteorologist Inspector
	Mr. Hesham Abdelfatah Ibrahim	Vice Chairman of NANSC
	Mr. Ehab Raslan Mohamed	G.M of R&D
	Mr. Yasser Mohamadain Hafez Khalil	General Director Of Cairo ACC
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	Mr. Yasser Abdelgwad Elsayed	Deputy Director of Cairo Airport Forecast Center
	Mr. Mahmoud Abdrahem Abdou	Meteorologist of Cairo airport forecast center
	Brig. Tamer Mohamed Fekry	Civil Military Coordinator Air Defense
	Col. Khaled Ibrahim M. Mohamed	Head of PANS-OPS Dept
	Capt. Ahmed Mamdouh M. Yassin	Navigator
	Capt. Mohamed Waheeh Hashem	PANS-OPS Designer
	Mr. Ahmed Allam	Senior AIM Officer
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	Mr. Meisam Shakerarani	Director Air Navigation and Aerodromes Oversight
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	Mr. Seyed Hamid Reza Saanei	Chief Expert of Air Navigation Services and Aerodromes
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- END -