



International Civil Aviation Organization

**MIDANPIRG STEERING GROUP**

**Sixth Meeting (MSG/6)**  
*(Cairo, Egypt, 3 - 5 December 2018)*

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**Agenda Item 5.3: Specific Air Navigation issues**

Outcome of ATFM TF & World Cup 2022 TF  
*(Presented by the Secretariat)*

**SUMMARY**

This paper presents the Outcome of the ATFM TF/1 and World Cup 2022 TF/1 meetings for the meeting review and appropriate action.

Action by the meeting is at paragraph 3.

**REFERENCES**

- ATFM TF/1 SoD
- World Cup 2022 TF/1/SoD

**1. INTRODUCTION**

1.1 The meeting may wish to recall that ATFM was endorsed as one of the high priority regional air navigation projects to be implemented under the framework of the MID Region ATM Enhancement Programme (MAEP).

**2. DISCUSSION**

***First Meeting of the Air Traffic Flow Management Task Force (ATFM TF/1)***

2.1 The ATFM TF was established by MIDANPIRG/16 (Kuwait, 13 – 16 February 2017) through MIDANPIRG Decision 16/16 below, based on the recommendation of the ATFM Seminar (Dubai, UAE, from 13 to 15 December 2016):

***DECISIONS 16/16: ATFM TASK FORCE***

*That,*

- a) an ATFM Task Force be established to develop an ATFM Concept of Operations for the MID Region;*
- b) the ATM SG/3 meeting develop the terms of reference of the ATFM Task Force; and*
- c) States support the ATFM Task Force through:*
  - i. assignment of ATFM Focal Point to contribute to the work of the Task Force; and*
  - ii. provision of required data in timely manner, and in particular to the survey that*

*will be carried out related to the airspace and sectors capacity, hot-spots, ATFM measures/system, etc.*

2.2 The MIDANPIRG ATFM TF/1 meeting was held in Muscat, Oman, from 23- to 25 September 2018. The Meeting was attended by a total of forty-one (41) participants from ten (10) States (Bahrain, Egypt, India, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, UAE and USA) and six (6) International Organizations/Industries (AEROTHAI, CANSO, EUROCONTROL, IATA, MAAR and MIDRMA). ACAO joined the meeting the last day and contributed to the meeting through correspondences.

2.3 The ATFM TF/1 meeting noted that the main task of the Task Force is the development of a CONOPS for the implementation of ATFM in the MID Region taking into consideration other experiences as well as the initiative carried out by ACAO.

2.4 The Summary of Discussions of the ATFM TF/1 meeting is at **Appendix A** and the meeting material are available on the ICAO MID Office website: <https://www.icao.int/MID/Pages/2018/ATFM%201-W2022.aspx>

2.5 The ATFM TF/1 meeting was supported by ATFM experts from India, FAA, AEROTHAI, CANSO and EUROCONTROL, who shared their experience and provided their views related to the implementation of ATFM in the MID Region. Qatar and UAE presented proposals related to ATFM implementation.

2.6 Taking into consideration the challenges, the work and resources required, and other experiences, the ATFM TF/1 meeting agreed that at this stage it would not be possible to develop an ATFM CONOPS without the assessment of the MID Region ATFM Capabilities. Accordingly, the meeting agreed to a roadmap for the development of the CONOPS.

2.7 The meeting agreed to a draft Questionnaire based on the one used in ASIA Pacific and the Americas, which was further improved and circulated by MID Office to States for inputs by 30 November 2018. The Questionnaire would be considered the basis for the actions that will be undertaken by the ATFM TF.

2.8 The ATFM TF/1 meeting established the ATFM Core Team composed of experts from; Bahrain, India, Oman, Qatar, Saudi Arabia, UAE, USA, AEROTHAI, ACAO, CANSO, EUROCONTROL, IATA and ICAO.

2.9 The Core Team will follow-up on the agreed actions by the ATFM TF, would conduct Teleconferences with some States based on the responses to the Questionnaire and develop a Draft CONOPS for ATFM. The first meeting of the Core Team will be hosted by UAE in Abu Dhabi, 22-24 January 2019.

2.10 The ATFM TF/1 meeting reviewed and update the Terms of Reference of the ATFM TF developed by the ATM SG/3 meeting as at **Appendix B**, which are presented for the meeting review and endorsement

#### ***First Meeting of the World Cup 2022 Task Force (W2022 TF/1)***

2.11 The meeting may wish to recall that the subject was addressed by MIDANPIRG/16 (Kuwait, 13-16 February 2017). The meeting noted that Qatar will be hosting the World Cup tournament in 2022, which will have an impact on the airspace capacity in the MID Region. The meeting emphasized that the World Cup 2022 event will require the implementation of ATFM measures which will be based on a collaborative decision making that allows all members of the ATM Community to participate in the decision making process, in particular the adjacent States.

2.12 The MIDANPIRG/16 meeting recognized the need for a collaborative action plan to accommodate the expected significant increase in air traffic, in a safe and efficient manner, with the participation of all concerned States and stakeholders, taking into consideration similar experiences, such as Brazil and South Africa World Cups, Athena Olympic Games, Hajj, etc.

2.13 The MIDANPIRG/16 meeting noted also that other major events are planned to be held in the Region, such as, the EXPO 2020 in UAE.

2.14 Based on the above, the MIDANPIRG/16 meeting agreed to the following Decision:

*DECISIONS 16/18: WORLD CUP 2022 TASK FORCE*

*That,*

- a) a World Cup 2022 Task Force be established to develop and follow-up the implementation of a collaborative action plan to accommodate the expected high increase in traffic, in a safe and efficient manner, taking into consideration similar experiences;*
- b) the Task Force address other major events such as the EXPO 2020; and*
- c) the ATM SG develop the terms of reference of the Task Force*

2.15 The ATM SG/3 meeting through Draft Decision 3/7 established an Action Group composed of the ATM SG Chairpersons, Qatar (Champion), UAE, AACO, IATA and ICAO to develop the Terms of Reference (ToR) of the World Cup 2022 Task Force before 15 September 2017. The World Cup 2022 Task Force ToR were endorsed by the ATM SG/4 meeting (Amman, Jordan, 29 April – 2 May 2018) through ATM SG Draft Decision 4/6.

2.16 The W2022 TF/1 meeting was held in Muscat, Oman, on 26 September 2018, back-to-back with the ATFM TF/1 meeting. The Summary of Discussions of the W2022 TF/1 meeting is at **Appendix C**.

2.17 The W2022 TF/1 meeting was apprised of other similar experiences that took place in Europe, South Africa and USA. Qatar presented an update on the level of preparation highlighting some of the challenges that require the implementation of regional solution to enable the MID Region to accommodate safely and efficiently the increase of traffic during the World Cup 2022.

2.18 The W2022 TF/1 meeting recognized the need to establish regional collaborative mechanism to address the issues associated with expected increase of traffic during the World Cup 2022 and other major events, which would have major impact on the traffic within and outside the MID Region.

2.19 The W2022 TF/1 meeting agreed to following actions to be undertaken till the W2022 TF/2 meeting:

- a) Qatar to carry out a study and collect necessary information related to World Cup 2022 to be presented to the next meeting.
- b) Preparation of an overview/outline of the foreseen collaborative mechanism/common platform to support meeting the challenges for the Expo 2020 and World Cup 2022 events in coordination with ATFM TF, as required.

2.20 The meeting agreed that effective coordination should be carried out between the W2022 TF and ATFM TF. Accordingly, the meeting reviewed and updated the terms of reference of the W2022 TF as at **Appendix D**, which are presented for the meeting review and endorsement.

2.21 The meeting may wish to note that Qatar offered to host the ATFM TF/2 back-to-back with the World Cup 2022 TF/2 meetings in Doha from 24 to 27 February 2018.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) review and endorse the ToRs of the ATFM TF and W2022 TF at **Appendices B and D**, respectively;
- b) urge States, if not yet done so, to complete the Questionnaire and return back to ICAO MID Office not later than 15 December 2018;
- c) encourage States to support the work carried out by the ATFM TF and W2022 TF and actively participate in the ATFM TF/2 and W2022 TF/2 meetings.

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## INTERNATIONAL CIVIL AVIATION ORGANIZATION

### MIDDLE EAST OFFICE

#### FIRST MEETING OF THE MIDANPIRG AIR TRAFFIC FLOW MANAGEMENT TASK FORCE

(ATFM TF/1)

*(Muscat, Oman, 23 – 25 September 2018)*

#### SUMMARY OF DISCUSSIONS

##### 1. PLACE AND DURATION

1.1 The First Meeting of the Air Traffic Flow Management Task Force (ATFM TF/1) was successfully held in Muscat, Oman, 23 - 25 September 2018. The meeting was gratefully hosted by the Public Authority for Civil Aviation (PACA), Oman.

##### 2. OPENING

1.2 The Meeting was attended by a total of forty one (41) participants from ten (10) States (Bahrain, Egypt, India, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, UAE and USA) and six (6) International Organizations/Industries (AEROTHAI, CANSO, EUROCONTROL, IATA, MAAR and MIDRMA). The list of participants is at **Attachment A**.

1.3 The meeting was opened by Mr. Anwar Al Raissi, Director General Civil Aviation Regulation, PACA, Oman, who extended a warm welcome to all participants to the ATFM TF/1 meeting and wished them a successful meeting and a pleasant stay in Muscat. Mr. Al Raissi thanked ICAO for organizing this meeting in Oman and re-stated Oman's commitment to support the ICAO MID Regional Office activities.

1.4 In his opening remarks, Mr. Elie El Khoury, Regional Officer, Air Traffic Management and Search and Rescue (RO/ATM/SAR), ICAO Middle East Office, Cairo, welcomed the participants to Muscat. On behalf of the ICAO Middle East Office, Mr. El Khoury expressed ICAO's gratitude and appreciation to H.E. Dr. Mohammed Ben Nasser Ben Ali Al Za'abi, Chief Executive Officer of Public Authority for Civil Aviation (PACA) – Oman for hosting the ATFM TF/1 and World Cup 2022 TF/1 meetings in Oman. He extended special thanks to all the team who participated in the preparation and facilitation of this meeting for their good cooperation and for the excellent hospitality extended to the ICAO staff and all participants. Mr. El Khoury highlighted that Oman continuous support to the ICAO MID Office activities is an evidence of its active role and reflects Oman's commitment to enhance the overall safety and efficiency of air navigation in the Region, and to ensure the success of the regional projects/initiatives.

1.5 Mr. El Khoury highlighted that this meeting provides an opportunity to share experience and agree on the way forward with the implementation of a collaborative ATFM in the Region, which could not be achieved without collaboration, support and contribution from all stakeholders.

1.6 Mr. El Khoury extended ICAO appreciation to India, Thailand (AEROTHAI), USA, ACAO, CANSO, EUROCONTROL, IATA for being part of the ATFM Task Force and for accepting the invitation to actively participate in the meetings and share their experiences and views, which would support the achievement of the ATFM and World Cup 2022 Task Forces' objectives.

1.7 In closing, Mr. Elie thanked the participants for their presence and wished the meeting every success in its deliberations.

### **3. OFFICERS AND SECRETARIAT**

1.8 Mr. Elie El Khoury, Regional Officer, Air Traffic Management/Search and Rescue (RO/ATM/SAR) was the Secretary of the meeting.

#### **AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA AND ELECTION OF CHAIRPERSON**

1.9 Mr. Hamad Rashid Al Belushi, Director Air Traffic Management, General Civil Aviation Authority, UAE, was unanimously elected as Chairman of the ATFM Task Force.

1.10 The meeting adopted the following Agenda:

- Agenda Item 1: Adoption of the Provisional Agenda and Election of Chairperson
- Agenda Item 2: Global and Regional Developments related to ATFM
- Agenda Item 3: Regional ATFM Framework
- Agenda Item 4: Plan of Actions
- Agenda Item 5: Future Work Programme
- Agenda Item 6: Any other Business

1.11 The documentation, working papers and Presentations delivered during the Meeting are available at the ICAO MID Regional Website: <https://www.icao.int/MID/Pages/2018/ATFM%201-W2022.aspx>.

#### **AGENDA ITEM 2: GLOBAL AND REGIONAL DEVELOPMENTS RELATED TO ATFM**

1.12 The subject was addressed in PPT/1 presented by ICAO, which provided an overview of the main objectives of the ATFM Task Force. The ATFM TF was established by MIDANPIRG/16 through Decisions 16/16 to develop a Concept of Operations (CONOPS) for the implementation of collaborative ATFM in the MID Region taking into consideration the existing initiatives and experiences from other regions. The ATFM Task Force would be the main collaborative platform to drive the implementation of ATFM in the MID Region.

1.13 The meeting was briefly apprised of the Third Edition -2018 of the ICAO Doc 9971 - *Manual on Collaborative Air Traffic Flow Management (ATFM)*, which would be use as the main guidance for the implementation of CDM/ATFM. The new Edition of the document is divided into three parts:

- Part I Collaborative Decision-Making (CDM)
- Part II ATFM
- Part III Airport Collaborative Decision-Making (A-CDM).

### **AGENDA ITEM 3: REGIONAL ATFM FRAMEWORK**

#### ***C-ATFM - India***

1.14 India provided an overview of the implementation of the Central Air Traffic Flow Management (C-ATFM), highlighting the objectives, the challenges and the lessons learned. It was noted that at the C-ATFM is being implemented into three (3) Phases:

Phase I (2015-2017):

- Airport (Ground Delay Program)
- Airport Arrival Constraints e.g. weather, runway outage
- Addressing constraints of Six Major Airports

Phase II (2017-2019):

- Ground Delay Program and Airspace Flow programs supporting Airspace Congestion & DCB at most airports across Country
- Interconnectivity among ATFM –ACDM systems
- Availability of WEB Services for all stakeholders

Phase III (2019-onwards):

- Ability to exchange information with adjacent ATFM Systems-communication Protocol
- Participation in Cross Border ATFM

1.15 The meeting noted that the Phase I and Phase II of the C-ATFM India applies to domestic traffic and starting from 2019, India would be ready to extend the system for cross border ATFM. It was noted with appreciation that India is willingness to support the MID Region with the implementation of ATFM to ensure inter-regional harmonization and optimization of the traffic flows at the interface between ICAO Asia Pacific (APAC) and MID Regions.

#### ***Distributed Multi-Nodal ATFM Project -AEROTHAI***

1.16 The meeting was apprised of the implementation of the Distributed Multi-Nodal ATFM Project in APAC Region that has been operational since 2015. The membership to the projects is Tiered Participation:

- Level 3 ATFM Nodes (Generate, Distribute, Comply to CTOT):  
China, Hong Kong-China, Singapore, Thailand, Cambodia
- Level 2 ATFM Nodes (Receive and Comply to CTOT Indonesia):  
Malaysia, Myanmar, Philippines
- Level 1 ATFM Nodes (Observers; soon to upgrade):  
Lao PDR, Viet Nam

1.17 The project is being implemented into three phases as follows:

Phase I (2015-2016): *Airport ATFM Programs*  
Distributed GDP for Constrained/Congested Arrival Airports

Phase II (2016-20xx): *Airspace ATFM Programs*  
Distributed GDP (+other measures) for Constrained/Congested Airspace Volume

Phase X:  
Globally-interconnected ATFM network, enabled by SWIM infrastructure

### ***CADENA-FAA***

1.18 FAA presented the Caribbean experiences with the implementation of the CANSO ATFM Data Exchange Network for the Americas (CADENA) initiative and noted that FAA and CANSO are supporting the global implementation of ATFM/CDM and have been expanding the work being conducted by ICAO NACC and SAM Regions.

1.19 The meeting noted that CADENA initiative offers a regional, cross-border ATM communications protocol and a seamless operational atmosphere that incorporates operational procedures and practices. Implementing regional, networked ATFM requires the establishment of CDM practices among Members and regional and international stakeholders. These practices shall be inclusive and transparent and provide the opportunity for exchanging operational information to facilitate a shared situational awareness and promote sound strategic and tactical planning in a CDM environment of multilateral decision-making.

### ***Network Manager - EUROCONTROL***

1.20 The meeting was provided with a general overview of EUROCONTROL and the Network Manager (NM) activities. The NM main role is as follows:

- optimize European ATM Network's operations with ANSPs and airports;
- ensure that European ATM meets the performance targets set by European Community for Single European Sky.
- provide a consolidated and coordinated approach to all planning and operational activities of the Network
- enable and deliver added operational performance (capacity, delay reduction, environment, flight efficiency, minimum emissions, ops safety, cost-effectiveness)

### ***What is needed for ATFM - CANSO***

1.21 CANSO underlined what is needed for ATFM highlighting the key points to consider when planning for ATFM implementation. CANSO shared their experience and the support provided for the implementation of ATFM in AFI, APAC, NACC and SAM Regions. CANSO shared the questionnaire that was used in APAC and for CADENA for determining the State's capabilities related to ATFM.

1.22 The meeting reviewed and updated the questionnaire as at **Appendix A**. The main purpose of the survey is to solicit information and develop a regional baseline view of current ATFM initiatives within the MID Region. Additionally, the questionnaire will gather information on future ATFM planning activity and interoperability between ANSP's.

1.23 The meeting commended India, FAA and the Organizations for their willingness to support the MID Region with the implementation of a regional collaborative ATFM in the MID Region.

### ***SWIM Gateway-UAE***

1.24 The meeting noted that UAE ATM Community is collaboratively building a nationwide system architecture following the principles of System Wide Information Management (SWIM). As one of the first SWIM enabled services, the UAE SWIM Gateway will provide a major step towards a nationwide SWIM architecture. The UAE SWIM Gateway harmonises and consolidates in real-time flight related information originating from existing legacy systems and those of new SWIM enabled capabilities. The SWIM Gateway is prepared to become a core building block for ATFM services providing centralized flight plan validation and distribution service as well as a data exchange for all flight related information.



1.25 The meeting congratulated UAE for the start of operation of the SWIM Gateway on 25 September 2018.

1.26 Proposals for the way forward were presented by Qatar and UAE through WP/3 and WP/4, respectively.

1.27 Qatar proposed the implementation of ATFM in the Region on a phased approach basis. Starting with Multi-Nodal Concept that would be evolved to the establishment of a system-wide, centralized regional ATFM at later stage after the maturity of the multi-nodal ATFM concept.

1.28 UAE highlighted the importance of specified and aligned pre-requisites as basis for the implementation of a regional ATFM service. Such specified pre-requisites and a phased approach for the implementation of a regional Collaborative ATFM service are crucial for a successful implementation. UAE proposed the establishment of teams to support the implementation of each phase as follows:

Pre-requisites:

**Pre-requisite 1:** Common performance objectives for a regional ATFM service needs to be defined

**Pre-requisite 2:** A large percentage of traffic causing unbalanced demand and capacity is subject to the service

**Pre-requisite 3:** Uniformity of traffic flow characteristics of the managed flights

Phases

**Phase 1:** (Assessment and Evaluation Team) Perform a joint assessment and confirmation of the Pre-requisites for a regional ATFM

**Phase 2:** (Design and Implementation Team) Develop a Concept of Operations for a regional ATFM service

**Phase 3:** (Research and Technology Team) Design a Collaborative ATFM solution that facilitates the Concept of Operations of the regional ATFM service

**Phase 4:** (Research and Technology Team) Implementation and rollout of the ATFM system based on the consideration of the Concept of Operations.

**Phase 5:** (All Teams) Operational Phase that include constant performance assessments of the ATFM service together with continuous improvement planning

**AGENDA ITEM 4: PLAN OF ACTIONS**

1.29 Based on the discussions and the experience from other regions, the meeting agreed that it would not be feasible to define and develop a CONOPS for the implementation of ATFM during the meeting without assessment of the current ATM and ATFM States' capabilities. Accordingly, the meeting agreed to a set of actions to be undertaken till the ATFM TF/2 meeting, which are outlined in the Roadmap at **Appendix B**. With a view to facilitate the coordination and follow-up the implementation of the agreed actions, the meeting established the ATFM Core Team composed of volunteer experts from Bahrain, India, Oman, Qatar, Saudi Arabia, UAE (ATFM TF Chairman), USA, ACAO, AEROTHAI, CANSO, IATA and ICAO. The Core Team ToRs are at **Appendix C**.

1.30 The ATFM Core Team would be supported by experts from States and Organizations as required in performing its tasks.

**AGENDA ITEM 5: FUTURE WORK PROGRAM**

1.31 The meeting reviewed and proposed an update to the ATFM TF Terms of Reference as at **Appendix D** and agreed that the next ATFM TF/2 meeting be held from 24 to 26 February 2019. The venue will be the ICAO MID Regional Office in Cairo, unless a State is willing to host the meeting.

1.32 Qatar offered to host the ATFM TF/2, which would be held back-to-back with the World Cup 2022 TF/2 meetings in Doha on the agreed dates.

1.33 UAE offered to host a face-to-face meeting at Sheikh Zayed Centre in Abu Dhabi from 22 to 24 January 2019 for the ATFM Core Team.

**AGENDA ITEM 6: ANY OTHER BUSINESS**

1.34 Nothing has been discussed under this Agenda Item.

**4. CLOSING**

1.35 In closing, Mr. Elie El Khoury thanked the participants for their presence and excellent cooperation and contribution to the meeting.

1.36 The participants thanked ICAO for organizing such a fruitful Meeting as well as PACA – Oman for hosting, and commended the regional efforts exerted to make the CDM/ATFM regional project a success.

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## INTERNATIONAL CIVIL AVIATION ORGANIZATION

### MIDDLE EAST OFFICE

### AIR TRAFFIC FLOW MANAGEMENT (ATFM)

#### Questionnaire

The purpose of this questionnaire is to carry out a survey to solicit information and develop a regional baseline view of current Air Traffic Flow Management (ATFM) initiatives within the MID Region as well for the collection of information on future ATFM planning activity and interoperability between States.

ICAO Doc 9971, Manual on Collaborative Air Traffic Flow Management has been used to assist in formulating the questionnaire questions.

The questionnaire consists of the following topic areas:

- Air Traffic Flow Management (ATFM) Structure and Organization
- ATFM - Capacity, Demand, Balance
- Interoperability

Please include with the survey response any pertinent documentation and/or information which may assist in the understanding and development of baseline and planned initiatives. Pertinent documents may include:

- Letters of Agreement
- Airport Arrival Rate (AAR), Airport Departure Rate (ADR) charts
- Website(s)
- Etc.

Please mark an “X” to the corresponding answer. Please include comments, if you deem pertinent.

Send copies of completed questionnaire response and electronic documents to:

[icaomid@icao.int](mailto:icaomid@icao.int) and [ekhoury@icao.int](mailto:ekhoury@icao.int)

In case clarification or support is required please contact Mr. Elie El Khoury Regional Officer ATM and SAR, ICAO Middle East Office ([ekhoury@icao.int](mailto:ekhoury@icao.int)).

<b>State:</b>	<b><u>Point of Contact details</u></b>
<b>Date:</b>	<b>Name:</b> <b>Email:</b> <b>Telephone/mobile:</b>

**Air Traffic Flow Management (ATFM) Structure and Organization**

1. Does your State have a regulatory requirement for ATFM to be implemented in your Flight Information Region (FIR)?

Yes	No	Comments:

2. Does your State have an operational requirement (e.g. demand exceeding capacity) for ATFM in your FIR?

Yes	No	Comments:

3. Does your State have future plans or initiatives for ATFM in your FIR?

If yes, please include a copy of the Concept of Operations (CONOPS) or other documentation with the survey response.

Yes	No	Comments:

4. Does your State have an organizational structure including the following facilities and/or working positions? If future organizational structure is planned, please include date.

Current	Yes	No	Planned date	Comments
ATFM Services				
ATFM Operational Manager				
ATFM positions located in the following				
National ATFM center				

Area control center(s)				
Approach control(s)				
Control tower(s)				

5. If there is existing ATFM functions performed, are there dedicated resources for these ATFM functions/positions or are these functions provided by another operational position? If provided by another operational position, please identify in the comments section.

Dedicated resource	Another Operational Position	Comments

6. Does your State have Letters of Agreement (LOA) that include ATFM with any of the following stakeholders? If so, please provide a copy or relevant excerpt of the LOA(s) with the survey response:

Stakeholder	Yes	No	If yes, please list	LOA planned date
1. FIR(s)				
2. Stakeholders				
- Airport Operators				
- Aircraft Operators				
- Military				
- General Aviation				
- ATFM Units				
- National ATFM center				
- Area control center				
- Approach control				
- Control tower				

Comments

*“Collaborative decision-making (CDM) is defined as a process focused on how to decide on a course of action articulated between two or more community members. Through this process, ATM community members share information related to that decision and agree on and apply the decision-making approach and principles. The overall objective of the process is to improve the performance of the ATM system as a whole while balancing the needs of individual ATM community members.”*

7. Does your State have existing CDM procedures (planned or Ad-Hoc Teleconferences,) and/or tools with the following stakeholders? If future CDM procedures and/or tools are planned, please add the date.

Stakeholders	Yes	No	If yes, please list	LOA planned date
Airport Operators				
Aircraft Operators				
Military				
General Aviation				
Area control center				
Approach control				
Control tower				
Other ANSP ATFM Units				
Other ANSP ATC Units				

Comments

8. Does your State’s ATFM unit(s) perform the following tasks? If future implementation planned, please add the date.

Current	Yes	No	Planned date	Remarks
1. Create and distribute an ATFM daily plan				

2. Collect the following relevant information				
- meteorological conditions				
- capacity constraints				
- equipment outages				
- runway closures				
- procedural issues				
3. Analyze and distribute relevant information				
4.Coordination procedures with stakeholders (indicate method(e.g., voice meetings, email) and frequency) in the comments section				
5. Structured information dissemination process, i.e. website				

Comments

*Note: Please include sample ATFM daily plan and/or other documentation examples with survey response.*

9. Are the following CDM elements included as part of your stakeholder’s participation in the ATFM process?

Current	Yes	No	If yes, please list
1.Provide updated flight plan intent information (e.g., plans, changes, delays) provided by:			
- Aircraft Operators			
- Military			
- General Aviation			
2.Telephone conferences			
- Airport			

- Military			
- Aircraft Operators			
- General Aviation			
- ATFM Units			
- Other FIR ANSP's			
3.Web based interfaces			
- Airport			
- Military			
- Aircraft Operators			
- General Aviation			
- ATFM Units			
- Other FIR ANSP's			

Comments

10. Does your State provide standardized and recurrent ATFM training for the following personnel and stakeholders? If standardized training is planned, please add date.

Current	Yes	No	Planned date	Remarks
1.Personnel performing ATFM functions				
- National ATFM center				
- Area control center				
- Approach control				
- Control tower				
2.Stakeholders				
- Airports				
- Aircraft Operators				



- Military				
- General Aviation				

Comments

11. Does your State have an electronic ATFM system that displays airborne traffic? Is this system shared? If not, what is the planned date (if any) for sharing this system?

	Yes	No	Planned date	Remarks
Electronic ATFM display system				
Shared with:				
1. FIR(s)				
2. Stakeholders				
- Airport Operators				
- Aircraft Operators				
- Military				
- General Aviation				

Comments

**ATFM - Capacity, Demand, Balance**

12. Does your State declare ATC strategic capacity values for the following resources? If capacity value declarations are planned to be completed, please add date.

Current	Yes	No	Planned date	Remarks
1. Airspace sectors				
2. Waypoint(s) or boundaries				

3. Airport acceptance rate(s) (arrival and departure)				
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Comments

13. How are the declared capacity values determined?

14. Does your State have strategic airport arrival/departure slots? If planned, please indicate the dates:

Airport	Arrival	Departure	Planned date	Remarks

Comments

15. Does your State have a methodology to balance demand and capacity in the following time frames?

Timeframe	Yes	No
Strategic (more than 1 day before operation)		
Pre-tactical (1 day before operation)		
Tactical (day of operation)		

Comments

16. Has your administration (and/or State) implemented procedures, review, and tools to identify available capacity, compare capacity to forecast demand and establish performance targets including. If initiatives are planned, please add date.

Current	Yes	No	Planned date
1. Airspace design review			

2.ATFM support tools			
3.Procedures review			
4.Staffing resources to workload / traffic review			
5.ATFM Training completed			
6.Forecast demand			

Comments

**Interoperability**

17. Does your State complete automated exchange of ATS messages (e.g. FPL, CHG, CNL, DEP, DLA, EST, ARR, CPL) with any or all adjacent Flight Information Regions (FIRs) or other non-adjacent FIRs?

FIR	Yes	No	If yes, please identify data exchanged.

Comments

18. Does your State have plans to complete automated exchange of ATS messages with any or all adjacent Flight Information Regions (FIRs) or other non-adjacent FIRs?

FIR	Yes	Date	If yes, please identify data exchanged.


Comments

19. Does your State exchange Airport Acceptance Rate (AAR) information for primary airports with other FIRs? If there are plans to exchange AAR information, please provide date.

FIR	Yes	No	Planned date	Remarks

Comments

20. Does your State share adjacent sector capacity information with other FIRs? If there are plans to exchange sector capacity information, please provide date.

FIR	Yes	No	Planned date	Remarks

Comments

21. Does your State have automated Pre-tactical (day prior to the operation) demand monitoring capability? If yes, is the information shared with other FIRs?

	Yes	No	If yes, please list FIRs
Airport Demand			
Sector Demand			
Route/Airway Demand			

Comments

22. Does your State have automated Tactical (day of the operation) demand monitoring capability? If yes, is the information shared with other FIRs?

	Yes	No	If yes, please list FIRs
Airport Demand			
Sector Demand			
Route/Airway Demand			
Arrival Management			

Comments

23. Does your State have Strategic, Pre-tactical and Tactical planning agreements with other FIRs?

Yes	No	If yes, please explain

24. Are there plans to initiate these agreements?

Yes	No	If yes, please explain

*Note: Please include any additional documents with the survey.*

25. Has your State identified airports, sectors of airspace or routes which are regularly requiring ATFM Measures to balance demand and capacity? If yes, list them:

26. Does your State initiated/implemented the following Air Traffic Management Measures (ATFM Measures) internally?

ATFM Measures	Yes	No	Remarks
Miles-in-trail (MIT)			
Minutes-in-trail (MINIT)			
Speed restrictions			
Airborne Holding			
Fix balancing			
Altitude/Flight Level capping			
Tactical alternative routing options			
Fix crossing times			
Airport slot			
Minimum departure intervals (MDIs)			
Published, pre-defined alternative routes			
Ground delay program (GDP) – airport arrival constraint			
Ground stop (GSt)			

Ground delay program (GDP) – airspace constraint (also known as airspace flow program: AFP)			
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Comments

27. When determining an ATFM Measure, are the following factors considered?

	Yes	No
Demand exceeds capacity		
Weather		
Military exercises		
Resources		
Maintenance / outages		
VIP movements		

Comments

28. Does military airspace/activity cause the use of ATFM Measures? If yes, please explain.

29. Is the military airspace/activity included in strategic planning?

30. How is the effectiveness of the ATFM Measure analyzed?

31. What are the primary demand- capacity imbalance reasons for the ATFM Measures?

	Please list airport/sector/route/airway
Airport capacity	
Sector capacity	

Route/Airway capacity	
Other	

Comments

32. Does your State initiate the following ATFM Measures with adjacent FIRs?

TMIs	Yes	No	If yes, please list FIRs.
Miles-in-trail (MIT)			
Minutes-in-trail (MINIT)			
Speed restrictions			
Airborne Holding			
Fix balancing			
Altitude capping			
Alternative routing options			
Fix crossing times			
Airport Slot			
Minimum departure intervals (MDIs)			
Published, pre-defined alternative routes			
Ground delay program (GDP) – airport arrival constraint			
Ground stop (GSt)			
Ground delay program (GDP) – airspace constraint (also known as airspace flow program : AFP)			

Comments



33. What is taken into consideration when an ATFM Measure is implemented.

34. How is the duration of the selected ATFM Measure determined?

35. Does your ANSP carry out any post-operations analysis?

36. How is the effectiveness of the ATFM Measure analyzed?

37. Are the ATFM Measures included in LOAs?

38. Does your State communicate ATFM Measures through automated or verbal communication with adjacent FIRs?

	Automated	Verbal	Please list FIRs
Miles in trail			
Speed restrictions			
Holding			
Altitude			
Fix crossing times			
Airport arrival times			
Ground delay programs – airport arrival constraint			
Ground stops			
Ground delay program – airspace constraint			

Comments

39. If your State have future ATFM initiatives planned **with other FIRs** please list them below.

Initiative Title	
Primary Functions	
Status (Planning, Approved, Implementation, Testing)	
Initial Operational Capability Date	
Full Operational capability Date	

Initiative Title	
Primary Functions	
Status (Planning, Approved, Implementation, Testing)	
Initial Operational Capability Date	
Full Operational capability Date	

Comments

Please include any related documents with the survey.

40. If your State have future ATFM initiatives planned, please list them below.

Initiative Title	
Primary Functions	
Status (Planning, Approved, Implementation, Testing)	
Initial Operational Capability Date	
Full Operational capability Date	

Initiative Title	
Primary Functions	
Status (Planning, Approved, Implementation, Testing)	
Initial Operational Capability Date	
Full Operational capability Date	

Comments

Please include any pertinent documents.

41. ICAO has identified various ATFM and CDM initiatives in the Aviation System Block Upgrades (ASBU) process (Block 0 and Block 1 to be implemented by 2018). Please identify which of the following have been implemented or are planned to be implemented:

ASBU Module	Implemented	Planned date	Comments
<i>B0- A-CDM Improved Airport Operations through Airport-CDM</i>			
<i>B0-RSEQ Improved Traffic Flow through Runway Sequencing (AMAN/DMAN)</i>			
<i>B0-FICE Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration</i>			
<i>B0-DATM Service Improvement through Digital Aeronautical Information Management</i>			
<i>B0-FRTO Improved Operations through Enhanced En-Route Trajectories</i>			
<i>B0-NOPS Improved Flow Performance through</i>			

<i>Planning based on a Network-Wide view</i>			
<i>B1- A-CDM Optimized Airport Operations through A-CDM Total Airport Management</i>			
<i>B1-RSEQ Improved Airport operations through Departure, Surface and Arrival Management</i>			
<i>B1-FICE Increased Interoperability, Efficiency and Capacity through FF-ICE/1 application before Departure</i>			
<i>B1-DATM Service Improvement through Integration of all Digital ATM Information</i>			
<i>B1-SWIM Performance Improvement through the application of System Wide Information Management (SWIM)</i>			
<i>B1-NOPS Enhanced Flow Performance through Network Operational Planning</i>			
<i>B1-AMET Enhanced Operational Decisions through Integrated Meteorological Information</i>			
<i>B1-TBO Improved Traffic Synchronization and Initial Trajectory-Based Operation</i>			

*Note: For these items, please ensure they are included in the responses to previous questions about future plans.*

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**TERMS OF REFERENCE (TOR) OF THE  
MIDANPIRG AIR TRAFFIC FLOW MANAGEMENT TASK FORCE  
(ATFM TF)**

**I. TERMS OF REFERENCE**

- 1.1 *Perform a joint assessment and confirmation of the Pre-requisites for a regional ATFM. This shall include*
- 1.2 *Assessment of the performance objectives of the individual cooperating States and definition of common performance objectives for a regional ATFM service.*
- 1.3 *Perform a data collection and analysis to identify the hot-spot areas and critical times in a regional ATFM service area where demand consistently exceeds capacity. The reasons and contributing factors for unbalanced demand and capacity are to be identified.*
- 1.4 *Analysis of air traffic flows within the designated area of the regional ATFM service that is causing unbalanced demand and capacity. The analysis shall identify the traffic fractions that due to their uniformity are candidates for effective ATFM measures to increase the efficiency without violating the equity principle.*
- 1.5 Develop an ATFM Concept of Operations and a Framework which addresses ATFM minimum requirements for the implementation of and ATFM operational issues in the ICAO MID Region.
- 1.1.6 Agree on a mechanism to support the phased implementation of ATFM measures in the MID Region, when and where required.
- 1.2.7 Identify, research and recommend appropriate guidance regarding:
- a) aerodromes and enroute capacities under the normal circumstances and adjustment factors affecting the capacity ~~assessment and adjustment mechanisms~~;
  - b) regular review for all aerodromes and ATC sectors where traffic demand is expected to reach capacity, or is resulting in traffic congestion;
  - c) mechanisms for ATFM data gathering, collation and sharing between States, Organizations and ICAO, which may include:
    - i. adjusted aerodromes and enroute capacity ~~assessments, including due to~~ factors affecting capacity such as special use airspace status, runway closures and weather information;
    - ii. traffic demand information which may include flight schedules, flight plan data, repetitive flight plan data as well as associated surveillance updates of flight status; and
    - iii. ATFM Daily Plan.
  - d) compliance by airspace users with ATFM measures; and
  - e) any other guidance relevant to the Regional ATFM Framework.
- 1.3.8 ~~Review~~ Consider existing and planned ATFM initiative in the Region, and make specific recommendations to ensure their alignment.
- 1.4.9 Ensure inter-regional ATFM harmonization with adjacent ICAO Regions.
- 1.5.10 Recommend appropriate inputs to the ASBU Modules relevant to ATFM such as NOPS,

A-CDM, etc.

~~1.6~~1.11 Report to the ATM SG.

~~1.7~~1.12 Review periodically its Terms of Reference and propose amendments as necessary.

~~1.8~~1.13 Coordinate as deemed necessary with the Runway and Ground Safety Working Group (RGS WG) and the Meteorology Sub-Group (MET SG) the issues of mutual interest.

## II. COMPOSITION

2.1 The Sub-Group is composed of MID ATFM focal points and experts from:

- a) MIDANPIRG Member States;
- b) India, FAA, AACO, ACAOC, AEROTHAI, CANSO, EUROCONTROL, FAA, IATA, and ICAO (Bangkok, Cairo, Paris Offices and HQ); and
- c) other representatives from provider States and Industry may be invited on ad hoc basis, as observers, when required.

2.2 The Task Force shall elect a Chairperson to act as the point of contact on behalf the Task Force.

2.3 The Task Force shall meet at least once a year and when deemed necessary.

2.2.4 ICAO MID Office will act as the Secretary of the ATFM Task Force meetings.

DRAFT



## INTERNATIONAL CIVIL AVIATION ORGANIZATION

### MIDDLE EAST OFFICE

#### FIRST MEETING OF THE MIDANPIRG World CUP 2022 TASK FORCE

(W2022 TF/1)

*(Muscat, Oman, 26 September 2018)*

### SUMMARY OF DISCUSSIONS

#### 1. PLACE AND DURATION

1.1 The First Meeting of the World Cup 2022 Task Force (W2022 TF/1) was successfully held back-to-back with the Air Traffic Flow Management Task Force (ATFM TF/1) in Muscat, Oman on 26 September 2018. The meeting was gratefully hosted by the Public Authority for Civil Aviation (PACA), Oman.

#### 2. OPENING

1.2 The Meeting was attended by a total of forty-one (41) participants from ten (10) States (Bahrain, Egypt, India, Iraq, Kuwait, Oman, Qatar, Saudi Arabia, UAE and USA) and seven (7) International Organizations/Industries (ACAO, AEROTHAI, CANSO, EUROCONTROL, IATA, MAAR and MIDRMA). The list of participants is at **Attachment A**.

1.3 The W2022 TF/1 and ATFM TF/1 meetings were opened by Mr. Anwar Al Raissi, Director General Civil Aviation Regulation, PACA, Oman, who extended a warm welcome to all participants to Oman and wished them successful meetings and a pleasant stay in Muscat. Mr. Al Raissi thanked ICAO for organizing these meetings in Oman and restated Oman's commitment to support the ICAO MID Regional Office activities.

1.4 In his opening remarks, Mr. Elie El Khoury, Regional Officer, Air Traffic Management and Search and Rescue (RO/ATM/SAR), ICAO Middle East Office, Cairo, welcomed the participants to Muscat. On behalf of the ICAO Middle East Office, he expressed ICAO's gratitude and appreciation to H.E. Dr. Mohammed Ben Nasser Ben Ali Al Za'abi, Chief Executive Officer of Public Authority for Civil Aviation (PACA) – Oman for hosting the ATFM TF/1 and World Cup 2022 TF/1 meetings in Oman. He extended special thanks to all the team who participated in the preparation and facilitation of this meeting for their good cooperation and for the excellent hospitality extended to the ICAO staff and all participants. Mr. El Khoury highlighted that Oman continuous support to the ICAO MID Office activities is an evidence of its active role and reflects Oman's commitment to enhance the overall safety and efficiency of air navigation in the Region, and to ensure the success of the regional projects/initiatives.

1.5 Mr. El Khoury highlighted that this meeting provides an opportunity to share experience and agree on the way forward with the implementation of a collaborative ATFM in the Region, which could not be achieved without collaboration, support and contribution from all stakeholders.

1.6 Mr. El Khoury extended ICAO appreciation to India, Thailand (AEROTHAI), USA, ACAO, CANSO, EUROCONTROL and IATA for being part of the ATFM Task Force and for accepting the invitation to actively participate in the meetings and share their experiences and views, which would support in achieving the ATFM and World Cup 2022 Task Forces' objectives.

1.7 In closing, Mr. Elie thanked the participants for their presence and wished the meeting every success in its deliberations.

### **3. OFFICERS AND SECRETARIAT**

1.8 Mr. Elie El Khoury, Regional Officer, RO/ATM/SAR was the Secretary of the meeting.

#### **AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA AND ELECTION OF CHAIRPERSON**

1.9 Capt. Abdulrahman Al-Hammadi, Director of Air Safety Department, Qatar Civil Aviation Authority, chaired the meeting.

1.10 ICAO provided an overview related to the establishment of the W2022 TF by MIDANPIRG through Decision 16/18. The meeting recalled that the main objective of the W2022 TF is to develop and follow-up the implementation of a collaborative action plan to accommodate the expected high increase in traffic, in a safe and efficient manner, taking into consideration similar experiences.

1.11 The meeting adopted the following Agenda:

- Agenda Item 1: Adoption of the Provisional Agenda
- Agenda Item 2: Overview of Similar Experience
- Agenda Item 3: Regional Framework
- Agenda Item 4: Plan of Actions
- Agenda Item 5: Future Work Programme
- Agenda Item 6: Any other Business

1.12 The documentation, working papers and Presentations delivered during the Meeting are available at the ICAO MID Regional Website:

<https://www.icao.int/MID/Pages/2018/World%20Cup2022.ASPX.aspx>

#### **AGENDA ITEM 2: OVERVIEW OF SIMILAR EXPERIENCE**

1.13 With respect to Europe experience, the meeting was apprised by EUROCONTROL of the procedures that ensure effective coordination between all stakeholders during special and major events. It was noted that even the events outside the EUR Region are taking into consideration due to their impact on the EUR traffic, this includes EXPO 2020 and World Cup 2022 events.

1.14 USA/FAA shared their experience related to the preparation and management of the traffic for the Super Bowl game planned for February 2019, highlighting the required pre-requisites, challenges as well as the key points for success.

1.15 CANSO provided an overview of South Africa experience with the FIFA World Cup 2010 highlighting the lessons learned and how they approached the events with effective advance planning and putting necessary procedures in place include training of personnel as well as the management of slot allocation.



1.16 The meeting recognized that some key points should be considered during the preparation for major events such as:

- Collaborative Decision-Making (CDM)
- Airport capacity
- Airspace capacity
- Slot allocation and adherence including reservation system
- Drop-and-Go procedures
- Security (Temporary Reserved Airspaces) procedures at and around the airports and the venues
- VIP/VVIP and State flights
- Controllers Staffing
- Management Staffing
- Technical Operations Staffing (equipment maintenance)
- Contingency/Emergency procedures
- Public Transportation options from all airports supporting event
- Forecasts of movement and passengers
- Designation of main airports for the event
- Airspace Review – Enroute/TMA
- Publication of procedures and rules (aeronautical publication)
- Training for Airport Authority, Handling Agents, ATC, etc.
- Weather
- Inter-regional coordination
- Etc.

### **AGENDA ITEM 3: REGIONAL FRAMEWORK**

1.17 The subject was addressed in WP/2 and PPT/4 presented by Qatar. The meeting recognized the need to establish regional collaborative mechanism to address the issues associated with expected increase of traffic during the World Cup 2022 and other major events, which would have major impact on the traffic within and outside the MID Region. Qatar highlighted the following:

- Phased implementation of the Global ATM Operational Concept in the region aimed to achieve an interoperable global Air Traffic Management System, for all users during all phases of flight, that meets agreed levels of safety, provides for optimum economic operations, is environmentally sustainable and meets national security requirements is yet to be initiated.
- In addition, there is no established mechanism to give guidance on the seven interdependent concept components that will be integrated to form the future ATM system as follows:
  1. Airspace organization and management
  2. Aerodrome operations
  3. Demand and capacity balancing
  4. Traffic synchronization
  5. Conflict management
  6. Airspace user operations
  7. ATM service delivery management
- ATM service delivery management, ATM system design will have to be determined by collaborative decision making and system-wide safety and business case.

1.18 Qatar proposed the establishment of a collaborative mechanism that would:

- allow the concerned ANSPs to participate in ATM decisions that affect them during the preparation of the events;

- apply to all layers from long-term planning activities to real-time operations through collaboratively agreed procedures;
- enable any concerned party to propose a solution and will ensure that all concerned parties are included in all aspects of the airspace management; and
- support other demand/capacity balancing during the events.

1.19 The mechanism can be applied across the timeline of activities from strategic planning to real-time operations. This approach will enable the ATM community to reach the performance objectives of the processes it supports and are expected to be agreed upon collaboratively among the concerned ANSPs.

1.20 Although information sharing is an important enabler for the proposed mechanism, there is a need for predefined and agreed upon procedures and rules.

1.21 The development of the proposed concept will be in accordance with the following phases:

- The first phase is the identification of the need to apply collaborative mechanism to realize a performance improvement and should be applied and specify the current situation and the involved parties.
- The second phase will require further analysis from a collaborative mechanism perspective. The analysis should make clear what decisions are to be made, which parties are involved (or affected), which information is used and which process are followed, how such an improvement could contribute to better performance.

#### **AGENDA ITEM 4: PLAN OF ACTIONS**

1.22 Based on the discussions and the foregoing, the meeting agreed to following actions to be undertaken till the W2022 TF/2 meeting:

- a) Qatar to carry out a study and collect necessary information related to World Cup 2022 to be presented to the next meeting.
- b) Preparation of an overview/outline of the foreseen collaborative mechanism/common platform to support meeting the challenges for the Expo 2020 and World Cup 2022 events in coordination with ATFM TF as required.

#### **AGENDA ITEM 5: FUTURE WORK PROGRAM**

1.23 The meeting agreed that the World Cup 2022 TF/2 meeting to be held from 26 to 27 February 2019 back-to-back with the ATFM TF/2 meeting. The venue will be the ICAO MID Regional Office in Cairo, unless a State is willing to host the meeting.

1.24 The meeting recalled Qatar offer to host the ATFM TF/2 back-to-back with the World Cup 2022 TF/2 meetings in Doha on the agreed dates.

1.25 The meeting reviewed and updated the terms of reference of the W2022 TF as at **Appendix A**. The meeting agreed that effective coordination should be carry out between the W2022 TF and ATFM TF.

#### **AGENDA ITEM 6: ANY OTHER BUSINESS**

1.26 Nothing has been discussed under this Agenda Item.

**4. CLOSING**

1.27 In closing, Mr. Elie El Khoury, Regional Officer, ATM/SAR, thanked the participants for their presence and excellent cooperation and contribution to the meeting.

1.28 The participants thanked ICAO for organizing such an important Meeting as well as PACA – Oman for hosting, and commended the regional efforts exerted to make this meeting a success.

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**TERMS OF REFERENCE (TOR) OF THE  
MIDANPIRG WORLD CUP 2022 TASK FORCE  
(W2022 TF)**

**1. OBJECTIVES AND SCOPE**

1.1 The Task Force will be expected to apply the performance-based approach through a collaborative manner to address the most strategic decisions to reach the following:

- a) A sufficient coordination between the Air Navigation Service Providers (ANSPs), airports, airspace users and regulators;
- b) A sufficient coordination at local, regional and inter-regional levels to accommodate safely and efficiently the expected significant increase of traffic; and
- c) A defragmented approach from an operational perspective to achieve (gate-to-gate, city pairs, and an oriented track system) which leads to more than optimum flight and airport operations efficiency.

1.2 The Task Force shall support the MID Region ATFM System once established.

**2. TERMS OF REFERENCE OF THE TASKFORCE**

2.1 Develop and follow-up the implementation of an action plan to accommodate the expected high increase of traffic, in a safe and efficient manner, taking into consideration similar experiences from other regions.

2.2 Address other major events such as the EXPO 2020 and develop action plan(s) to accommodate the changes in traffic flows as required.

2.3 Define explicit and implicit strategic objectives (e.g. improved safety, increased air traffic capacity, improved efficiency, and mitigation of airspace congestion impact).

2.4 Identify operational and technical requirements including proposals for airspace management changes and amendment to the MID ATS Route Network to accommodate the air traffic through the establishment of temporary routes as required.

2.5 Develop the concept of collaborative decision-making at the strategic, tactical and pre-tactical levels, which would be implemented before and during the World Cup event.

2.6 Suggest methods for increased interaction between airspace providers in order to make sure that the network effects of any trajectory selection are properly incorporated in the decisions.

2.7 Develop collaborative regional mechanism for the implementation of ATFM solutions/measures such as Ground Delay Program (RGDP), which would be implemented for departures from airports in the region.

2.8 Assess the operational performance of the ATM network by its capability to accommodate demand through realistically modeled network nodes, i.e. airports and airspace volumes.

2.82.9 The Task Force shall work in close coordination with the ATFM TF to avoid duplication of efforts.

### 3. COMPOSITION

3.1 The World Cup 2022 Task Force is composed of experts from:

- a) MIDANPIRG Member States;
- b) India, FAA, AACO, ACAO, AEROTHAI, CANSO, EUROCONTROL and IATA;  
and
- c) other representatives from States, Organizations and Industry may be invited on ad-hoc basis, when required.

3.2 ICAO MID Office will act as the Secretary of the Task Force.

### 4. WORKING PROCEDURES

4.1 Qatar shall act as the Chairman of the Task Force.

4.2 In order to effectively perform its tasks and responsibilities, the Task Force will meet as required in order to achieve its objectives.

4.3 Coordination will be carried out among the Task Force members and with concerned State(s) through correspondence and teleconferences and, if required, face-to-face meetings with stakeholders on case-by-case basis.

4.4 A Core Team might be established to follow-up with the concerned State(s) and air operators the conduct of safety and operational assessments and provide support as appropriate.

- END -