



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**

**MIDDLE EAST OFFICE**

**EIGHTH MEETING OF THE FIFA WORLD CUP 2022 TASK FORCE**

**(FWC2022 TF/8)**

*(Doha, Qatar, 8 February 2023)*

**SUMMARY OF DISCUSSIONS**

## **1. PLACE AND DURATION**

1.1 The Eighth Meeting of the FIFA World Cup 2022 Task Force (FWC2022 TF/8) was kindly hosted by Qatar Civil Aviation Authority (QCAA) in Doha, at the Qatar Air Traffic Control Centre (QATCC), on 8 February 2023.

## **2. OPENING**

2.1 The meeting was opened by Mr. Ahmed Al-Eshaq, Air Navigation Director, Qatar Civil Aviation Authority who welcomed all participants to Doha. In his opening remarks, Mr. Al-Eshaq commended the States' collaborative efforts during the FIFA World Cup 2022 period, which supported the implementation of the FWC2022 ATM Operational Roadmap as planned and enabled the whole Region to successfully accommodate the significant increase of traffic volumes during the tournament.

2.2 In his opening remarks, Mr. Ahmad Amireh, Regional Officer, Air Traffic Management and Search and Rescue (RO/ATM/SAR), ICAO Middle East Office, recalled the main tasks assigned to the FWC2022 Task Force since it was established in 2017; to develop and follow-up the implementation of a collaborative Action Plan to accommodate the expected high increase in traffic during FWC2022, in a safe and efficient manner. He recalled that the Task Force was tasked to develop and share the outcomes of the implementation review, including all stakeholders' inputs, challenges and success. Mr. Amireh extended special thanks to the Air Navigation team in QCAA for the preparation and facilitation of the meeting and for the excellent hospitality extended to all participants. He thanked all the participants for their attendance and wished the meeting every success in its deliberations.

## **3. ATTENDANCE**

3.1 The meeting was attended by a total of forty-eight (48) participants from ten (10) States (Egypt, Bahrain, Iraq, Jordan, Libya, Oman, Qatar, Saudi Arabia, UAE and USA/FAA) and three (3) International Organizations (CANSO, IATA and IFATCA). The list of participants is at **Attachment A**.

## **4. OFFICERS AND SECRETARIAT**

4.1 The FWC2022 TF/8 meeting was chaired by Mr. Mohammed Almuhamadi, Head of ATC Training, Qatar Civil Aviation Authority (QCAA). Mr. Almuhamadi extended appreciation to all participants for accepting the invitation and encouraged them to participate in the meetings actively and share their experiences and the challenges faced during the event, which would support the development of the post implementation review and list of recommendations for future similar events.

4.2 Mr. Ahmad Amireh, Regional Officer, Air Traffic Management and Search and Rescue (RO/ATM/SAR), MID Regional Office, was the Secretary of the meeting. Ms. Dina El Karimy, Technical Assistant, ATM/SAR and ASF, provided the technical assistance.

## **5. DISCUSSIONS**

### **AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA**

5.1 The meeting adopted the following Agenda:

Agenda Item 1: Adoption of the Provisional Agenda

Agenda Item 2: FWC2022 Post implementation Assessment:

- Actual figure, and traffic data
- Status of FWC2022 Checklist and Action Plan

- Post event review
- Recommendations

Agenda Item 3: Future Work Programme

Agenda Item 4: Any other Business

5.2 The documentation and presentations delivered during the meeting are available on the ICAO MID Office website at: [https://www.icao.int/MID/Pages/2023/FWC2022%20TF8\\_ATFM%20TF7.aspx](https://www.icao.int/MID/Pages/2023/FWC2022%20TF8_ATFM%20TF7.aspx).

## **AGENDA ITEM 2: FWC 2022 POST IMPLEMENTATION ASSESSMENT**

5.3 The meeting recalled the history of the establishment of the FWC2022 Task Force and the progress made during its previous meetings, and the MIDANPIRG outcomes related to the FWC2022 TF, in particular MIDANPIRG Decision 16/18 related to the establishment of the Task Force and MIDANPIRG17/23 related to the Action Plan and Checklist.

5.4 It was highlighted that the FWC2022 TF has organized a total of seven meetings since it was established, in virtual and physical modes; to meet the timelines required for the implementation of the Action Plan. The Action Plan included items related to Airspace enhancements projects and ATFM implementations, that required regional activities championed by different Stakeholders; and monitored by the Checklist, with due considerations to the AIRAC Cycle.

5.5 The meeting noted with appreciation the completion of the Airspace enhancements, which supported the traffic movements during the event.

5.6 The meeting noted with appreciation the establishment of Doha ATFM unit, based on the MID Region ATFM Plan (MID Doc. 014), and the utilization of the web-based tool for exchanging the operational data which supported Qatar and the MID States in calculating the demand versus the capacity and issuance of ATFM measures for traffic bound to Doha.

5.7 The meeting recalled that the Task Force was requested to develop Post Implementation Review and Recommendations to be used as reference for similar future events.

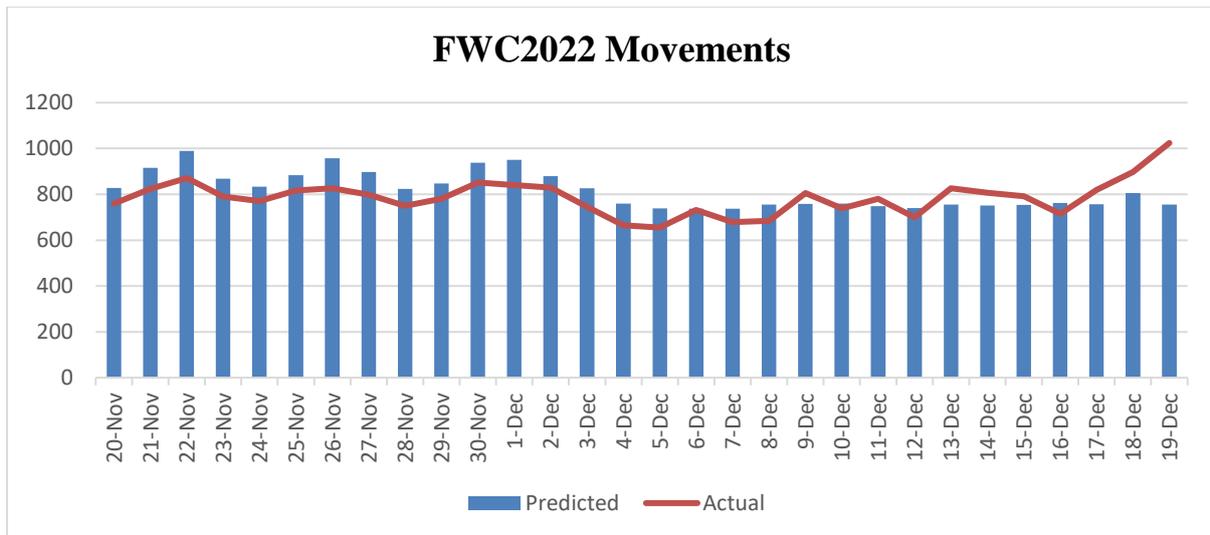
### ***Actual Figures and Traffic Data***

5.8 The subject was addressed in PPT/2, presented by Qatar, showing the Figures and statistics related to the FWC2022 in general and traffic movements in particular.

5.9 The meeting recalled that at earlier stages of planning, Qatar provided forecasted traffic data, which was used to develop the MID RVSM Airspace Assessment by the MIDRMA based on the worst-case scenario; the results of the assessment showed that 1600 movements are expected. Based on that, airspace capacity enhancements projects were initiated to accommodate the expected significant increase of traffic.

5.10 Additionally, the meeting recalled that getting closer to the event, Qatar managed to provide more accurate forecast based on the airport slot reservation in coordination with the airport operators in Doha. The traffic reached 1000 Movements per day.

5.11 It was highlighted that during the tournament period, a total of 1.4 million visitor arrived to Qatar, about 24000 flights bounded to the airports available in Doha: Hamad International and Doha Airport. The daily traffic varied between 750 to 1000 flights according to the following graph:



5.12 The calculated growth of traffic movements reached 360% compared with the average movements on the period before and after the tournament.

#### *States' and Operators' Views*

5.13 The subject was addressed in PPTs/2A – 2F, presented by Bahrain, Jordan, Oman, Saudi Arabia, UAE and IATA, respectively.

5.14 The meeting was apprised of the operational plans implemented within the relevant FIRs, including the resources management, enhanced manpower to support sectorization to balance demand vs capacity, preventive maintenance programme and contingency planning; which resulted in meeting the optimum flight operations and minimum delays.

5.15 The meeting noted with appreciation the utilization of the Daily Plan developed and distributed by Doha ATFM Unit, which supported the planning within the ATC units in the adjacent FIR. Additionally, the establishment of national level operational committees, to coordinate with all the national stakeholders including airports and CMC.

5.16 The meeting noted that the common challenge faced by the ATC units was the demand uncertainty. However, the Daily Plan distributed by Doha ATFM Unit supported the pre-tactical planning.

5.17 From their perspective, the Air operators represented by IATA, reported a very high level of satisfaction on the level of planning, coordination and information sharing; using the available channels including the FWC2022 platform established by IATA in coordination with the MID Office.

5.18 It was highlighted that the Regional collaboration was the key success factor for the Air Traffic management during the FIFA World Cup 2022.

#### *Status of FWC2022 Checklist and Action Plan*

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

5.20 The meeting recalled the FWC2022 Action Plan and the checklist including the details of the roadmap and operational plan to ensure all projects implementation are tracked and harmonized.

5.21 The meeting reviewed the FWC2022 Action Plan and Checklist, as at **Appendices A** and **B**, respectively, and noted with appreciation the completion of all the assigned tasks.

**Post Event Review**

5.22 The subject was addressed in PPT/4, presented by the Secretariat.

5.23 The meeting noted that the FWC2022 event was an opportunity to evaluate the ATS route structure, the level of services on the whole region and the coordination mechanisms between States, ANSPs and Airspace Users; the introduction of improvements and upgrading the provided services will enhance the capacity and support the traffic growth for years ahead in a safe manner; however, the lack of a centralized information sharing and traffic management units will continue to be a challenge for the MID Region.

5.24 The meeting developed “Post Assessment Review” including the views from all Stakeholders, to identify the challenges and lessons learned. The Review included a list of recommendations that might be used for future similar events, as at **Appendix C**.

**AGENDA ITEM 3: FUTURE WORK PROGRAMME**

5.25 Considering the end of FWC2022 tournament, the successful completion of the items included in the FWC2022 Action Plan and Checklist; and the positive feedback on the traffic management during the event, the meeting agreed to the following Draft Decision:

***DRAFT DECISION 8/1: DISSOLUTION OF THE FWC2022 TASK FORCE***

*That, the FWC2022 Task Force is dissolved.*

**AGENDA ITEM 4: ANY OTHER BUSINESS**

5.26 Nothing has been discussed under this Agenda Item.

**6. CLOSING**

6.1 In closing, the Chairperson thanked the participants for their presence and excellent cooperation and contribution to the meeting; and appreciated the efforts of the FWC2022 members during the last years in planning for the event, and the ATM teams in all the States in supporting the traffic movements during the event in a safe and efficient manner, which led to a success for the whole Region.

6.2 The participants thanked ICAO MID for organizing the meeting as well as Qatar QCAA for the generous hosting and commended the regional efforts in accommodating the significant amount of traffic during FWC2022.

-----

# *APPENDICES*

## FWC 2022 Operational Plan and Road Map, Checklist

	Key Activity	Rationale / Sub activates	Champion / Support	Target Effective Date	Status	Effective Date
<b>1</b>	<b>Airspace management:</b>					
	1.1 Temporary Doha TMA Terminal flight procedures	Accommodate the demand	Qatar	Cycle Jun 2022	Completed	8 September 2022
	1.2 CMC/FUA implementations within Qatar	Increase Airspace capacity	Qatar	July 2022	Completed	August 2022
	1.3 Saudi Arabia implementations:	-Routing -Hasa Airport accessibility -Routing options	Saudi Arabia	Cycle 10 (6 Oct 2022)	Completed	6 October 2022
	1.4 Egypt	-ATS routes	Egypt	TBD by Cycle 10	Completed	8 September 2022
	1.5 Kuwait (Parallel routes)	- Establishment of 4 RNAV1 ATS Routes	Kuwait / MIDFPP	TBD	Suspended – widened scope	TBD
<b>2</b>	<b>ATFM Implementation:</b>					
	2.1 Development of FWC 2022 CONOPS	Principles of ATFM implementations	Qatar	April 2022	Completed	8 September 2022
	2.2 Deployment of the ATFM system/tools	Automated web-based tool to assess demand and measures	Qatar	April 2022	Completed	
	2.3 General ATFM tool Training (Harmony)	All States are encouraged to participate	Qatar, All MID States	Mar 2022	Completed	Pre-requests of the attendees
	2.4 Advanced ATFM Tool Training (Harmony)	Interested States	Qatar, interested States	Q3 2022	not requested	
<b>3</b>	<b>Coordination and conference call</b>					
	3.1 Designation of FWC of Focal Points	to ensure smooth coordination	MID States	22 Sep 2022	Completed	28 June 2022
	3.2 Sharing and exchanging operational information	Exchange operational data	Qatar and MID States	1 Nov – 31 Dec 2022	Completed	8 September 2022

	Key Activity	Rationale / Sub activates	Champion / Support	Target Effective Date	Status	Effective Date
<b>4</b>	<b>Temporary LoAs/ Operational Arrangements amendment:</b>					
	4.1 Coordination meeting(s)	To agree on the different amendments	Qatar adjacent States	1. MIDANPIRG/ 19 2. One-to-one meeting (virtually)	Completed	
	4.2 FWC Temporary LoAs / Working arrangements	Signature of LoAs	Qatar and: • Bahrain • Iran • Oman • Saudi Arabia • UAE	mid of October 2022	Completed	8 September 2022
<b>5</b>	<b>Airspace users consultation and coordination:</b>					
	5.1 IATA MENA RCG briefing	Airspace users briefing	IATA, TF Chairman, Qatar team	14 Feb 2022	Completed	1 – 2 Mar 2022 10 Aug 2022 28 – 29 Sep 2022
	5.2 ATFM data requirements	Exchange of operational data	IATA, Airspace users	8 September 2022	Completed	8 September 2022
<b>6</b>	<b>Trial and evaluation period:</b>					
	6.1 Dry run	Simulation sessions	Qatar, MID States	July 2022	Completed	8 September 2022
	6.2 Evaluation and reporting	Identify shortages	ICAO MID MID States	FWC TF/8 Q1 2023	Completed	8 February 2023

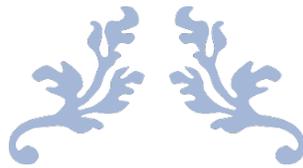
-----

## 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 17/24	MIDANPIRG	ICAO MID	Completed
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 Mar 2021	Forecasted FWC2022 FPL/Traffic data for at least 10 days	Qatar	MIDRMA	Completed
6.	Assess the potential impact on traffic flows <b>within the RVSM Airspace</b> based on the projected Traffic Data and projected LHD reports	23 Mar 2021	FWC2022 RVSM Airspace assessment	MIDRMA	Qatar	Completed
7.	Present the results of the airspace assessment to the FWC2022 TF/5 meeting	23 – 24 Mar 2021	WP/PPT	MIDRMA	ICAO MID	Completed
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

ACTION		Target date	Deliverable	Champion	Supported by	Status / remarks
No.	Description					
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	--	Completed
10.	Enhance the draft FWC2022 Roadmap and Operational Plan to be reviewed by ATM SG/7	15 Dec 2021	Enhanced the draft FWC2022 Roadmap and Operational Plan	Core Team	Qatar	Completed
11.	Present FWC2022 Roadmap, Operational Plan and Airspace structure assessment to MIDANPIRG/19	Feb 2022	WP	Chairman	ICAO MID	Completed
12.	Implementation of FWC 2022 Roadmap and Operational Plan (checklist)	Q3 2022	List of Activities: -Airspace management -ATFM Implementation -Temporary LoAs -Users consultancy	FWC TF Chair	ICAO MID	Completed
13.	Trial period	Q3 2022	Training and experimental period	Qatar	ICAO MID	Completed
14.	Wrap up and evaluation	FWC TF/7 Sep 2022	Operational evaluation and assessment	Doha, Qatar	ICAO MID MID States	Completed
15.	Conduct familiarization visit(s) to State(s) or Organizations that would be managing major events	Continues	Familiarization visit(s) webinar(s)	Qatar and Members of FWC2022 TF, as required	EUROCONTROL CANSO AEROTHAI	Completed
16.	Post implementation and closing	Q2 2023	Lessons learned, Best practices and post implementation reporting	ICAO MID	MID States and Airspace users	Completed

-----



---

POST IMPLEMENTATION REVIEW OF AIR TRAFFIC  
AND AIRSPACE MANAGEMENT DURING FIFA  
WORLD CUP 2022

---



MIDANPIRG FWC2022 Task Force  
February 2023  
V1.0

## CONTENTS

1.	Summary .....	2
2.	Introduction .....	2
	History and background .....	2
	Scope and objectives .....	2
3.	MIDANPIRG FWC2022 Task Force .....	3
	Establishment of the Task Force .....	3
	Team members .....	3
4.	Challenges .....	3
	Identifying the Challenges .....	3
	A) The need for Airspace structure enhancements .....	3
	B) The need for ATFM solution .....	3
5.	FWC2022 MID RVSM Airspace Assessment by the MIDRMA .....	3
6.	Airspace Capacity Enhancements .....	4
7.	ATFM IMPLEMENTATION .....	4
	Establishment of the Doha ATFM Unit .....	4
	Supporting Tools .....	4
8.	Action Plan .....	4
	Scope of the action plan .....	4
	Key activities and Action items .....	4
	Implementation checklist .....	5
9.	Airspace Users' Engagement and Consultation .....	5
	Periodic meetings to address operational issues .....	5
	Development of online tool .....	5
10.	Outcomes, deliverables and results .....	5
11.	Recommendations .....	5
	Appendix A: FWC2022 TF Terms of Reference .....	i

## 1. SUMMARY

Given the expected significant traffic growth expected during the FWC2022 event, hosted in Doha, Qatar, during the period 20 November to 18 December 2022, the MIDANPIRG Decision established the FWC2022 to develop a regional plan to accommodate the expected demand for the MID Region ATS route structure and airspaces in a safe and efficient manner. The task force developed an Action Plan to support the MID Regions States and ensure the readiness of the ATS units to accommodate the expected demand. The Action Plan was developed with all MID States and representatives from the International and Regional Organizations and Industry. It included an evaluation of the current ATS Route structure within the Region and Airspace Enhancement projects within the MID FIRs. Furthermore, the implementation of ATFM solution in Doha airports, which required coordination with the other MID States.

After implementing the Action Items, it was reported that the traffic during the event, which reached 50% more than the normal traffic within Doha TMA and reached 360% on adjacent FIRs, was managed as planned with no major issues to be reported.

## 2. INTRODUCTION

### History and background

One of the key challenges faced by Air Navigation Service Providers (ANSPs) and airlines is how to increase airspace capacity without compromising safety. New air traffic management (ATM) development paradigms aimed for doubling the airspace capacity two times while increasing safety by a factor of 10, by 2030.

Given the continued growth in air transportation globally, specifically, within the MID Region; which is known for its attractive destinations, beside the hosting of global events like FWC2022; the mix of Airspace Users' capabilities are also observed within the Region. Airspace enhancements projects continue to enhance capacity, as the Region lacks the implementation of an ATFM solution, however, there is an initiative by the Region to implement multi-nodal ATFM concept as a first step of implementation. The development of the regional requirements, documents and guidance material was recently completed, and the MID States started the training and building capacity for ATFM implementation on a national level, however, the FWC2022 event was sooner than the agreed timelines of training for ATFM implementation.

### Scope and objectives

The scope of this study is to evaluate the development of regional plans and implementation of the Action Items within the FWC2022 Action Plan by the different stakeholders, related to Airspace and Air Traffic Management. It includes the success, challenges, limitations and other lessons learned; the objective of this review is to develop a list of recommendations that will be available for future similar events within the Region.

### 3. MIDANPIRG FWC2022 TASK FORCE

#### Establishment of the Task Force

The FWC2022 TF was established by the MIDANPIRG/16 (2016) through Decision, according to its ToR, at Appendix A. The main task of the FWC2022 TF is to address the coordination between ANSPs, Airspace Users and regulators, on local, regional and interregional levels, to accommodate traffic demand in a safe and efficient manner.

#### Team members

The task force is composed of experts from States, Regional and International Organizations and Industry.

### 4. CHALLENGES

#### Identifying the Challenges

The identified challenges are split into two parts:

#### A) The need for Airspace structure enhancements

The Airspace structure in the MID Region is diverse, some FIRs are modern and efficient, while others are legacy and due for revision. Enhancement projects are already ongoing, but the timelines of the FWC2022 precluded the regional Airspace enhancement projects. To overcome this issue, the MIDRMA was tasked to develop RVSM Airspace assessment based on the traffic data forecasted for the FWC2022.

#### B) The need for ATFM solution

The State of Qatar has identified the need for ATFM solution for traffic arriving and departing to/from airports within the Doha FIR.

The ATFM implementation within the MID Region was identified as regional target and the ATFM TF has developed a Concept of Operations CONOPS, however the timelines of the implementation plan extended beyond the FWC2022.

### 5. FWC2022 MID RVSM AIRSPACE ASSESSMENT BY THE MIDRMA

One of the MIDRMA tasks includes the development of Safety Monitoring Report which is developed on an annual basis. This is based on a Traffic data sample collected from all MID States for a particular month and Large Height Deviation Reports during the year.

The MIDRMA was also tasked to develop a FWC2022 RVSM Airspace Assessment, based upon the forecasted traffic data provided by the State of Qatar. This forecast was a challenge as it depended upon the results of the matches especially during the elimination phase of the tournament. The MIDRMA used all the historical LHD data, as it was found impractical to forecast these events. Additionally, the MIDRMA used the nominal annual growth of the traffic (apart from COVID-19 impact). The forecasted traffic together with the LHDs were used with the other standard parameters to develop a worst-case scenario showing a model for Vertical Collision Risk computation and graphically represented this for the impacted FIRs within the MID Region.

The results of the assessment, based on worst-case scenario data, showed that new hotspots and bottlenecks were created. The assessment results were shared with the concerned States/ANSPs to take the necessary measures, including changes in the traffic orientation schema; establishment of ATS routes/conditional Routes; and enhanced LoAs.

## 6. AIRSPACE CAPACITY ENHANCEMENTS

The State of Qatar developed new terminal procedures, including SIDs, STARs and independent parallel approaches. The new structure has significantly increased the efficiency within the Doha TMA which lead to enhanced capacity.

Additionally, many airspace enhancement projects were developed and published within Amman, Cairo and Jeddah FIRs.

## 7. ATFM IMPLEMENTATION

Establishment of QCAA ATFM Regulation QCAR 098 of 2022The State of Qatar enacted Qatar Civil Aviation Regulation (QCAR) 098 of 2022 regarding the implementation of Air Traffic Flow Management and the establishment of the Air Traffic Flow Management Unit which became effective on the 08 September 2022.

### Establishment of the Doha ATFM Unit

The establishment of the Doha ATFM Unit enabled daily collaborative decision making calls and publication of the ATFM daily plan. This was disseminated via e-mail and online via the ATFM tool.

Data collection from Airport Operators and airport slot coordinators was found crucial along with ATC flight plans.

### Supporting Tools

QCAA has deployed an ATFM system that shows the traffic demand versus available capacity. When required ATFM measures may be applied.

## 8. ACTION PLAN

### Scope of the action plan

The FWC2022 Action Plan was developed by the TF members, reviewed during the TF meetings and updated/amended as required. The implementation of the Action items was monitored by MIDANPIRG.

### Key activities and Action items

1. Development of reports and status monitoring to the MIDANPIRG
2. Developing MID RVSM Airspace assessment
3. Developing FWC2022 Roadmap and Operation Plan
4. Providing Forecasted traffic movements
5. Development and deploying the ATFM concept and training sessions
6. Familiarization and experience sharing activities with previous FWC hosting States/ANSPs

### Implementation checklist

Several Airspace enhancement projects were initiated based on the results of the MIDRMA Assessment, which required a checklist to monitor the different activities required to complete the projects and issuing of Aeronautical Information Publications, in a harmonized manner. The checklist was presented and endorsed by the MIDANPIRG/19.

## 9. AIRSPACE USERS' ENGAGEMENT AND CONSULTATION

### Periodic meetings to address operational issues

Many coordination meetings were held with IATA and Airspace Users using online (virtual) teleconferencing tools, to exchange operational data and raise operational issues.

### Development of online tool

IATA AME in coordination with the ICAO MID Office developed an online platform to connect the Airspace Users with Airspace managers to swiftly address the common operational issues.

## 10. OUTCOMES, DELIVERABLES AND RESULTS

1. Action Plan with timelines and assignee to implement roadmap and operational plan for the event.
2. Establishment of ATFM procedures and training
3. Recommendations to avoid challenges in similar future events

## 11. RECOMMENDATIONS

The following list of recommendations are emanating from the TF members, to be available for future similar events:

**Recommendation 1:** Major events within the MID Region require regional involvement by the States regulatory side, ANSPs and Airspace Users to ensure the safe and efficient management of Air Traffic and Airspaces. Given the success of the FWC2022, the FWC2022 Action Plan could be reused as base line for similar event.

**Recommendation 2:** The collaboration with Airspace Users, aeronautical data providers is essential in planning and implementing major events. However last-minute changes are to be expected and this may impact flight planning.

*Note: Adherence to the AIRAC Cycle calendar compliance shall be duly considered. Publications of NOTAM should be closely coordinated with Airspace users and adjacent States, where required.*

**Recommendation 3:** Using the available resources, the MIDRMA could provide an assessment to identify the hotspots, bottlenecks and other areas of enhancements to be provided to relevant State, based on the current ATS Route structure, historical and forecasted data. The enhancements in ATS routing could be made on a temporary basis to accommodate the traffic demand during the subject event.

**Recommendation 4:** The implementation of advanced technologies and solutions will always require training to ensure successful implementation. Training support might be

required for other concerned States (where cross-border implementation deemed necessary).

**Recommendation 5:** Coordination with Airport Operators / airport slot coordinators will enhance the planning and calculation of the demand on Airspace.

**Recommendation 6:** Establishment of National coordination committee will support the implementation and alignment between different entities within the State.

**Recommendation 7:** The harmonization of Aeronautical Information Publication from different States is required to ensure successful implementation.

**Recommendation 8:** Operational arrangements and special parts of LoAs to be developed, for temporary usage during a special event.

**Recommendation 9:** Airspace capacity calculation is a requirement, the airspace enhancements will increase the capacity, while regulating the traffic demand will increase the effectiveness of operations.

**Recommendation 10:** The implementation of ATFM measures for traffic movements bound to specific airport or State will enhance safety and efficiency of flight operations and regulate the traffic demand on the related airspaces.

*Note: the establishment of ATFM services (MID Doc 014 refer), including the collection and sharing the operational data will significantly enhance the planning and operation of ATS units.*

- END -

## APPENDIX A: FWC2022 TF TERMS OF REFERENCE

### TERMS OF REFERENCE (TOR) OF THE MIDANPIRG FIFA WORLD CUP 2022 TASK FORCE (FWC2022 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 FWC2022 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 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 (GDP), 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.
- 2.9 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 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.
- 4.4 The Chairperson, in close co-operation with the Secretary, shall make all necessary arrangements for the most efficient working of the Task Force. The Task Force 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 Task Force to advance the work. Best advantage should be taken of modern communications facilities, particularly video-conferencing (Virtual Meetings) and e-mails.
- 4.5 Face-to-face meetings will be conducted when it is necessary to do so.

-----

# **ATTACHMENT A**



## LIST OF PARTICIPANTS

State	Name	Title
BAHRAIN	Mr. Abdulla Hasan Al Qadhi	Director Air Traffic
	Mr. Ahmed Y. Al Malki	A/Chief Air Traffic Management
EGYPT	Mr. Amr Ibrahim Abdel Latiff	ANS Inspector - ECAA
	Mr. Samer Hussein Emam	Act as Head of Central Administration for Air Navigation Services - ECAA
IRAQ	Mr. Abbas Sabbar Ghali	Director General of GCANS - GCANS
	Mr. Abdullah Fadhil Mohsin	Operations Member - GCANS
	Mr. Ali Mohammed Abdalghani	OPS Manager - GCANS
	Ms. Hiba Khalid Hussein	Approach Procedure Unit - GCANS
	Mr. Hussein Abdulkareem Lazim	ATFM Deputy - GCANS
	Mr. Mohanad Ali M. Jawad	ATFM Manager - GCANS
	Mr. Nabeel Saad Abdulridha	ACC Training Manager - GCANS
JORDAN	Mr. Khaled Arabiyat	ATM Director - CARC
	Mr. Marwan Hani Al-Masri	Air Traffic Control Officer ATCO - CARC
	Mr. Mohammad AbuSalah	Air Traffic Controller - CARC
LIBYA	Mr. Hisham Al Meselati	Deputy Head of Office ATFM
	Mr. Osama Elahwel	ATC - Chief of Air Traffic Flow Management Office
OMAN	Mr. Abdullah Said Al Hasani	Standard Officer – Airspace
	Mr. Mohammed Rashid Hamad Al Balushi	Air Traffic Controller Officer

State	Name	Title
QATAR	Mr. Abdulla Abdulqader Al-Haj	Head of Doha Tower
	Mr. Ahmed Mesad Qadar	ATCO 1 Approach
	Mr. Ahmed Mohd H M Al-Eshaq	ANS Director
	Mr. Aris Tzetitoglou	Manager AOCC - MATAR
	Mr. Dhiraj Ramdoyal	Head ANS Inspectorate
	Mr. Eissa Abdulrahman Al-Meabid	Deputy Head of Approach
	Mr. Erwin Obergruber	ATM Advisor
	Mr. Keith Crawford	ANS Advisor - ATFM Expert
	Mr. Kevin Cooper	ANS Advisor
	Mr. Marco Proietti	OPS Expert (ENAV - FUSION)
	Miss. Marion Murel	ANS - Deputy Safety Manager
	Ms. Maryam Rashid Al-Naimi	Acting Head of IMS - ANS Safety
	Mr. Mohammed A.Rahman Al-Nuaimi	Radar Engineer
	Mr. Mohammed Almuhamadi	ATC / Head of Training, Air Navigation Department & Chairperson of the FWC2022 Task Force
	Mr. Pieter Jacobus De Bruyn	ATFM Specialist
	Dr. Ramy Saad	ANS Inspector
	Mrs. Samina Razaq	Senior Electronics Engineer
Mr. Umair Ahmed	Team Lead Comm. OPS	

State	Name	Title
<b>SAUDI ARABIA</b>	Mr. Nasser A. Alotaibi	Airspace Operation Chief - SANS
<b>UAE</b>	Mr. Ahmed Ali Saeed Al Mansoori	Senior Specialist - Air Space Management
	Mr. Hamad Rashid Al Belushi	Senior Expert - Air Traffic Management & Chairperson of the ATFM Task Force
<b>USA/FAA</b>	Mr. Travis Fiebelkorn	Senior International Representative, Federal Aviation Administration, Air Traffic Organization, Mission Support- Europe, Africa, Middle East Group

Org.	Name	Title
<b>CANSO</b>	Mr. Javier Alejandro Vanegas	Director Latin America and Caribbean Affairs - Civil Air Navigation Services Organization (CANSO)
	Mr. Michael Murphy	Director Business Development Metron Aviation / CANSO ATFM WG
<b>IATA</b>	Ms. Zainab Khudhair	Manager Safety & Flight Operations (Africa & Middle East)
	Mr. Jacob Kipchumba Kangogo	ATM Regional Manager - ASPAC - Qatar Airways
<b>IFATCA</b>	Mr. Fateh Bekhti	Executive Vice President IFATCA AFM
	Mr. Raef Elsayed Ibrahim Doghda	ATCO
<b>ICAO MID</b>	Mr. Ahmad Amireh	Regional Officer, Air Traffic Management and Search and Rescue (RO/ATM/SAR)
	Ms. Dina El Karimy	Technical Assistant (ATM/SAR & ASF)