

International Civil Aviation Organization

MIDANPIRG/20 and RASG-MID/10 Meetings

(Muscat, Oman, 14-17 May 2023)

Agenda Item 6.5: ATM/SAR

FWC2022

(Presented by the Secretariat)

SUMMARY

This paper presents the progress under the FWC2022 TF.

Action by the meeting is at paragraph 3.

REFERENCES

- MIDANPIRG/19 and RASG-MID/9 Meetings Report (Riyadh, Saudi Arabia, 14-17 February 2022)
- ATM SG/8 meeting Report (Amman, Jordan; 7 10 November 2022)
- FWC2022 TF/8 meeting report (Doha, Qatar, 8 February 2023)

1. INTRODUCTION

1.1 The meeting may wish to recall the history of the MID Region FIFA World Cup 2022 Task Force (FWC2022 TF); through MIDANPIRG Decision 16/18 related to the establishment of the Task Force and MIDANPIRG17/23 related to the Action Plan and and MIDANPIRG19/ related to the development of the FWC2022 Checklist.

1.2 The meeting may wish to recall the discussion during the last MIDANPIRG meeting, related to the need to develop Post Implementation Review and Recommendations, to be used as reference for similar future event.

2. DISCUSSION

2.1 The meeting may wish to note that the FWC2022 TF has conducted a total of seven meetings since it was established, in virtual and physical modes; to meet the timelines required for the implementation of the FWC2022 Action Plan; which 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.

2.2 The meeting may wish to note, that all items within the FWC2022 Action Plan at **Appendix A**, were completed; in addition, the Airspace enhancements projects within the FWC2022 Checklist at **Appendix B**. which supported the traffic operations during the event.

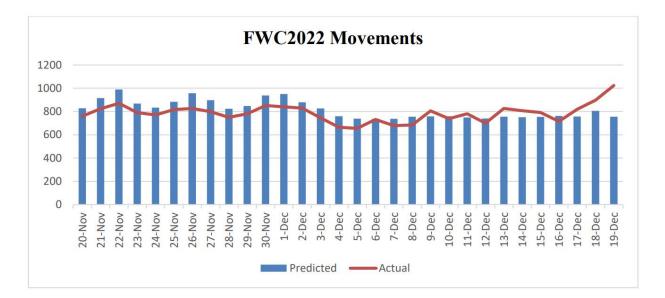
- 2 -

2.3 The meeting may wish to note 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. Additionally, the development and distribution of the Daily Plan by Doha ATFM Unit, which supported the planning within the ATC units in the adjacent FIRs.

2.4 The meeting may wish to recall 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 1'600 movements were expected. Based on that, airspace capacity enhancements projects were initiated to accommodate the expected significant increase of traffic.

2.5 Afterwards, 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 was expected to reach 1'000 Movements per day.

2.6 It is to be highlighted that during the tournament period, a total of 1.4 million visitor arrived at Qatar, about 24'000 flights bounded to the airports available in Doha: Hamad International and Doha Airport. The daily traffic varied between 750 to 1'000 flights according to the following graph:



2.7 The calculated growth of traffic movements during the tournament reached 360% compared with the usual average movements.

2.8 The meeting may wish to note, that, the FWC2022 TF members supported the implementation of FWC2022 Action Plan, the Airspace enhancements and the dedicated operational plans within the relevant FIRs, including resources management, enhanced manpower within the ATC units to support additional sectorization to balance the demand vs the capacity, preventive maintenance programmes for NAVAIDs and Facilities and contingency planning; all resulted in meeting the optimum flight operations and minimum delays, during the tournament.

- 3 -

2.9 Additionally, the establishment of national level operational committees in the adjacent FIRs, to coordinate with all relevant national stakeholders including airports and CMC, based on the received Daily Plans.

2.10 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.

2.11 The meeting may wish to note that the FWC2022 event was an opportunity to evaluate the ATS route structure, the level of services provided within 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 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.

2.12 The meeting may wish to note that the FWC2022 developed "Post Assessment Review", including the views from all Stakeholders, to identify the challenges and lessons learned. The Review also includes a list of recommendations that might be used for future similar events, as at **Appendix C**.

2.13 Based on the above, the last FWC2022 TF meeting agreed on the following Draft Decision:

DRAFT DECISION 20/x: DISSOLUTION OF THE FWC2022 TASK FORCE

That, the FWC2022 Task Force is dissolved.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) Recognize the efforts made by the FWC2022 TF members, the MID States and ANSPs related to Air Traffic Management during the FWC2022 Tournament;
- b) Encourage the State to use the FWC2022 Post Implementation Review for planning of future similar events that might attract significant number of Traffic; and
- c) Agree on the Draft Conclusions in para 2.13 above.

FWC2022 ACTION PLAN

| | ACTION | Target date | Deliverable | Champion | Supported by | Status / remarks |
|-----|--|---------------------|---|---------------|--------------|------------------|
| No. | Description | Target uate | Denverable | Champion | Supported by | Status / Temarks |
| 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 within the RVSM Airspace 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 |

A-2

| | ACTION | Target date | Deliverable | Champion | Supported by | Status / remarks |
|-----|--|----------------------|--|--|----------------------------------|------------------|
| No. | Description | U | Denverable | Champion | Supported by | Status / Temarks |
| 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 |

FWC2022 Operational Plan and Road Map, Checklist

| | Key Activity | Rationale / Sub activates | Champion / Support | Target Effective Date | Status | Effective Date |
|---|--|--|-----------------------------|--------------------------|------------------------------|-------------------------------|
| 1 | Airspace management: | | | | | |
| | 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 |
| 2 | ATFM Implementation: | | | | | |
| | 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 | |
| 3 | Coordination and conference cal | 1 | | | | |
| | 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 |

MIDANPIRG/20 & RASG-MID/10-WP/60 Appendix B

| | Key Activity | Rationale / Sub activates | Champion / Support | Target Effective Date | Status | Effective Date |
|---|--|---|--|---|-----------|--|
| 4 | Temporary LoAs/ Operational A | rrangements amendmen | t: | | | |
| | 4.1 Coordination meeting(s) | To agree on the different amendments | Qatar adjacent States | MIDANPIRG/ 19 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 |
| 5 | Airspace users consultation and | coordination: | | | | |
| | 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 |
| 6 | Trial and evaluation period: | | | | | |
| | 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 |



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



MIDANPIRG FWC2022 Task Force February 2023 V1.0

CONTENTS

| 1. | Summ | nary | 2 | | | |
|----------|--|---|--------------------------------------|--|--|--|
| 2. | Introduction | | | | | |
| | History and background | | | | | |
| | Scope | and objectives | 2 | | | |
| 3. | MIDA | NPIRG FWC2022 Task Force | 3 | | | |
| | Establ | ishment of the Task Force | 3 | | | |
| | Team | members | 3 | | | |
| 4. | Challenges | | | | | |
| | Identifying the Challenges | | | | | |
| | A) | The need for Airspace structure enhancements | 3 | | | |
| | В) | The need for ATFM solution | 3 | | | |
| 5. | FWC2 | 022 MID RVSM Airspace Assessment by the MIDRMA | 3 | | | |
| 6. | Airspace Capacity Enhancements | | | | | |
| | | | | | | |
| 7. | ATFM | IMPLEMENTATION | 4 | | | |
| 7. | | IMPLEMENTATION | | | | |
| 7. | Establ | | 4 | | | |
| 7. 8. | Establ Suppo | ishment of the Doha ATFM Unit | 4 4 | | | |
| | Establ Suppc Actior | ishment of the Doha ATFM Unit | 4 4 4 | | | |
| | Establ Suppo Action Scope | ishment of the Doha ATFM Unit orting Tools n Plan | 4 4 4 | | | |
| | Establ Suppo Action Scope Key ac | ishment of the Doha ATFM Unit orting Tools n Plan of the action plan | 4 4 4 4 | | | |
| | Establ Suppo Action Scope Key ad | ishment of the Doha ATFM Unit orting Tools n Plan of the action plan ctivities and Action items | 4 4 4 5 | | | |
| 8. | Establ Suppo Action Scope Key ac Imple Airspa | ishment of the Doha ATFM Unit orting Tools n Plan of the action plan ctivities and Action items mentation checklist | 4 4 4 5 5 | | | |
| 8. | Establ Suppo Action Scope Key ad Imple Airspa Period | ishment of the Doha ATFM Unit orting Tools n Plan of the action plan ctivities and Action items mentation checklist ace Users' Engagement and Consultation | 4 4 4 5 5 5 | | | |
| 8. | Establ Suppo Action Scope Key ad Imple Airspa Perioo Develo | ishment of the Doha ATFM Unit orting Tools of Plan of the action plan ctivities and Action items mentation checklist ace Users' Engagement and Consultation dic meetings to address operational issues | 4 4 4 5 5 5 5 | | | |
| 8. 9. | Establ Suppo Action Scope Key ad Imple Airspa Perioo Develo Outco | ishment of the Doha ATFM Unit orting Tools | 4 4 4 5 5 5 5 5 | | | |

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 that 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 Attachment 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 Sates 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 -

ATTACHMENT 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 pretactical 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.
