International Civil Aviation Organization

MIDANPIRG/17 and RASG-MID/7 Meeting

(Cairo, Egypt, 15 – 18 April 2019)

Agenda Item 6.2: **Air Navigation Planning and Implementation**

OUTCOME OF THE ATFM TF/2 AND FWC2022 TF/2 MEETINGS

(Presented by the Secretariat)

SUMMARY
This paper presents the Outcome of the ATFM TF/2 and FWC2022 TF/2 meetings for appropriate actions. Action by the meeting is at paragraph 3.

REFERENCES
- ATFM TF/2 Summary of Discussions - FWC2022 TF/2 Summary of Discussions

1. **INTRODUCTION**

1.1   The meeting may wish to recall that the Air Traffic Flow Management Task Force and FIFA World Cup 2022 Task Force were established by MIDANPIRG/16 through Decisions 16/16 and 16/18, respectively.

1.2   The Terms of References of both Task Forces were developed by the ATM SG, reviewed by the ATFM TF/1 and FWC2022 TF/1 meetings and endorsed by MSG/6 meeting (Cairo, Egypt, 3-5 December 2018).

1.3   The ATFM Task Force is tasked with the development of a Concept of Operations (CONOPS) for the implementation of ATFM in the MID Region.

1.4   The FIFA World Cup 2022 Task Force is tasked with the development and follow-up of the implementation of a collaborative action plan to accommodate the expected high increase in traffic due to major events, in a safe and efficient manner, taking into consideration similar experiences.

1.5   The ATFM TF/2 and FWC2022 TF/2 meetings were thankfully hosted by the Arab Civil Aviation Organization (ACAO) in Casablanca, Morocco, 19 – 20 March 2019 back-to-back with the ACAO/ICAO ATFM Workshop (17 – 18 March 21019).

1.6   The meeting may wish to note that the ATFM TF and FWC2022 TF have been thankfully supported by Brazil, India, FAA, ACAO, AEROTHAI, CANSO, EUROCONTROL and IATA.

2. DISCUSSION

2.1   The ATFM TF/2 meeting supported the recommendations emanating from the ACAO/ICAO ATFM Workshop (Casablanca, Morocco, 17 – 18 March 2019) at **Appendix A**. The meeting agreed that the Recommendations should be considered during the development of the ATFM CONOPS.

2.2   The ATFM TF/2 meeting reviewed the outcome of the ATFM Core Team/1 meeting (Abu Dhabi, UAE, 22 – 24 January 2019) at **Appendix B**. The meeting commended the work carried out so far by the Core Team.

2.3   The ATFM TF/2 meeting, based on the analysis of the survey results, recognized that the MID Region is still in the first steps related to the establishment of ATFM capabilities. Accordingly, the meeting agreed that raising awareness related to ATFM and qualifying ATFM Specialists should be given high priority.

2.4   The ATFM TF/2 meeting reviewed and agreed to the criteria used by the Core Team for the evaluation of the ATFM regional solutions.

2.5   The ATFM TF/2 meeting emphasized that establishing a "Centralized ATFM" (1 Centre) would be the optimal solution followed by "2 Centres for 2 participating areas", then a centralized solution through a "Third Party" providing the ATFM service and the last one would be the "Multi-Nodal" concept. However, considering the challenges, feasibility and time and efforts required, the Multi Nodal achieved the highest Score.

2.6   Based on the above, the ATFM TF/2 meeting agreed to recommend to MIDANPIRG/17 meeting (Cairo, Egypt, 15 – 18 April 2019) that the Multi-Nodal Concept should be applied for the MID Region as a first phase, which would be evolved to a centralized ATFM system in the future. Accordingly, the following Draft Conclusion is proposed:

Why	To establish a regional framework for ATFM implementation in the MID Region
What	Agreement on the Multi-Nodal Concept as regional ATFM Solution
Who	MIDANPIRG/17
When	April 2019

DRAFT MIDANPIRG CONCLUSION 17/XX: MULTI-NODAL ATFM SOLUTION FOR THE MID REGION

That,

a) *the Multi-Nodal Concept be implemented in the MID Region, as a first phase, which would be evolved to a centralized ATFM system in the future; and*

b) *the ATFM Task Force develop the ATFM Concept of Operations for MID Region, accordingly.*

2.7   It is to be highlighted that for the Asia Pacific Multi-Nodal project; three documents have been prepared and agreed upon: CONOPS, Regional Framework and Common Operating Procedures, which would be used as basis for the development of the MID Region ATFM Documentation.

2.8   The ATFM TF/2 meeting agreed to the following high-level outline to be considered during the development of the CONOPS as detailed in **Appendix C**:

> Phase I- Building State's National ATFM Capabilities
> Phase II – Establishment of Regional ATFM Framework
> Phase III- Implementation of Cross border ATFM

2.9   The meeting agreed to the Action Plan at **Appendix C** for the implementation of ATFM in the MID Region that includes the following six (6) Key Activities:

> Key Activity 1: Agreement on the ATFM Regional Framework

> Key Activity 2: Development of Draft CONOPS

> Key Activity 3: Development of ATFM Regional Framework and draft Common Operating Procedures based on the agreed CONOPS

> Key Activity 4: Implementation of the MID ATFM Regional Framework and Common Operating Procedures

> Key Activity 5: Post Implementation Review of the MID ATFM Regional Framework

> Key Activity 6: Training and raising awareness related to ATFM.

2.10   Based on the above the meeting is invited to agree on the following Draft Conclusion:

Why	To develop ATFM Concept of Operations for the MID Region
What	Action Plan for the implementation of ATFM in the MID Region
Who	MIDANPIRG/17
When	April 2019

DRAFT MIDANPIRG CONCLUSION 17/XX: ACTION PLAN FOR THE IMPLEMENTATION OF ATFM IN THE MID REGION

That,

a)   *the Action Plan for the implementation of ATFM in the MID Region at **Appendix C** is endorsed; and*

b)   *States and Stakeholders to support the work of the ATFM Task Force and implement the actions relevant to them.*

2.11   The ATFM TF/2 meeting agreed that raising awareness, training and building States' capabilities related to ATFM should start the soonest possible and it is a continuous process.

2.12   The ATFM TF/2 meeting emphasized that the agreed deadlines/timelines are very tight. However, they are crucial for the establishment of regional ATFM Framework in a timely manner. Accordingly, the meeting urged States and Organizations to maintain to the extent possible the same ATFM Focal Points and the designated Members of the ATFM Task Force to ensure continuity and effectiveness.

2.13   The FWC2022 TF/2 meeting recognized the need for an effective coordination process between all stakeholders during special and major events. The meeting recalled 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
- Safety assessments
- Publication of procedures and rules (aeronautical publication)
- Training for Airport Authority, Handling Agents, ATC, etc.
- Weather
- Inter-regional coordination
- Etc.

2.14   The FWC2022 TF/2 meeting noted that the projected traffic to Qatar would reach 2000 movements per day during the FWC2022. Qatar has been working on making available the needed ground capacity. However, it was highlighted that diverting to airports in proximity to Doha might be required due to unforeseen circumstances such as weather, emergency, etc. Accordingly, the meeting agreed that this requires setting up a collaborative contingency procedure to cope with unforeseen circumstances.

2.15   The FWC2022 TF/2 meeting recognized that the MID Region may not be able to accommodate the expected increase in traffic during the FIFA World Cup 2022 without introducing improvements to the current ATS route structure and airspace management; increasing capacity and implementation of collaborative air traffic flow measures.

2.16   Based on the above, the FWC2022 TF/2 meeting agreed that the MIDRMA might be in a good position to conduct assessment to the airspace structure based on the expected traffic movement from 1 November to 31 December 2022, in order to identify the peak periods, hotspots, bottle necks, etc. In this respect, the following Draft Conclusion is proposed for the meeting consideration:

Why	To assess the airspace structure based on the expected traffic movement during FWC2022 to identify peak periods, Hotspots, Bottle necks, etc.
What	Assessment of the airspace structure based on the expected traffic movement to from 1 November to 31 December 2022
Who	MIDRMA
When	August 2019

DRAFT MIDANPIRG CONCLUSION 17/XX: ***ASSESSMENT OF THE AIRSPACE STRUCTURE BASED ON THE EXPECTED TRAFFIC MOVEMENT FROM 1 NOVEMBER TO 31 DECEMBER 2022***

That, the MIDRMA assess the airspace structure based on the expected traffic movement during FWC2022 to identify peak periods, Hotspots, Bottle necks, etc. based on the FPL/traffic data provided by Qatar.

2.17   Taking into consideration the outcome of the ATFM TF/2 meeting and in particular the ATFM Action Plan, which would support the FWC2022 TF, the FWC2022 TF/2 meeting agreed to postpone the development of an Action Plan for FWC2022 till the next meeting.

2.18   The FWC2022 TF/2 meeting agreed that a FWC2022 Roadmap should be developed to include procedures and an action plan to address the issues associated with the expected increase of traffic during the FIFA World Cup 2022 and other major events, which would have significant impact on the traffic within and outside the MID Region. An action on the conduct of safety assessment(s) should be included for the agreed scenario(s).

2.19   The meeting agreed to the actions to be achieved before the FWC2022 TF/3 meeting as at **Appendix D**.

2.20   The meeting may wish to note that the ATFM TF/3 and FWC2022 TF/3 meetings will be held from 12 to 13 January 2020. The venue would be the ICAO MID Regional Office in Cairo, unless a State will be willing to host the meeting.

3.   ACTION BY THE MEETING

3.1   The meeting is invited to:

   a)   review and support the recommendations emanating from the ACAO/ICAO ATFM Workshop (Casablanca, Morocco, 17 – 18 March 2019) at **Appendix A**;

   b)   agree on the proposed Draft Conclusions; and

   c)   urge Sates and Stakeholders to continue supporting the ATFM and FWC2022 Task forces and attend the meetings scheduled from 12 to 13 January 2020.

ACAO/ICAO ATFM Workshop (Casablanca, Morocco, 17 – 18 March 2019)

The main objectives of the ACAO/ICAO ATFM Workshop (Casablanca, Morocco, 17 – 18 March 2019) were to is to raise awareness about ATFM, share other ICAO Regions and States' experience as well as discuss and agree on recommendations for the implementation of ATFM in the MID Region based on the work carried out by the ATFM Core Team.

The Workshop recognized that:

- a regional solution to manage the traffic flow across the MID Region became a priority.

- collaboration between all stakeholders is a key success for effective development and implementation of regional framework for ATFM/CDM.

- development of ATFM Concept of Operations requires inputs/data from all stakeholders to ensure it meet the projected objectives.

- sharing information is the most important enabler for ATFM/CDM.

The Workshop agreed to the following Recommendations

1.   States and Stakeholders are encouraged to support ACAO and ICAO efforts related to the implementation of ATFM/CDM and in particular the work of the MIDANPIRG ATFM Task Force related to the Development of ATFM Concept of Operations for the MID Region taking into consideration other experiences.

States are encouraged to:

2.   establish ATFM framework at the national level (regulations, organizational structure, functions, operating procedures, etc.)

3.   develop ATFM National Implementation Plan

4.   ensure that ATFM personnel are trained and qualified to effectively carry out their tasks. ATFM Manager (decision maker) should have adequate ATC experience.

5.   carry out necessary studies to determine airspace and airports capacities

6.   exhaust all measures that would increase capacity and continue working on the airspace improvements and the enhancement of the air navigation services within their relevant FIRs taking into consideration the airspace users' requirements.

7.   support the implementation of the IFPS at regional level

8.   ensure the implementation of the Collaboration Decision Making (CDM) concept.

9.   support flight data exchange for the management and monitoring of air traffic flow at regional and inter-regional levels

ATFM TF is invited to:

10.   develop a training programme template to be used by States.

11.   develop a Template for National ATFM Implementation Plan

12.   support States in carrying out their airspace and sector capacity studies

ACAO and ICAO, supported by ATFM experts as required, are invited to:

13.   organize workshops and training courses related to ATFM.

14.   conduct visits to States to support the ATFM Implementation.

INTERNATIONAL CIVIL AVIATION ORGANIZATION

FIRST MEETING OF THE MIDANPIRG ATFM CORE TEAM
(ACT/1)

(*Abu Dhabi, UAE, 22 - 24 January 2019*)

SUMMARY OF DISCUSSIONS

1.   PLACE AND DURATION

1.1   The First Meeting of the MIDANPIRG ATFM Core Team (ACT/1) was thankfully hosted by the General Civil Aviation Authority – UAE at Sheikh Zayed Air Navigation Centre in Abu Dhabi, UAE, from 22 to 24 January 2019.

2.   OPENING

2.1   The meeting was opened by Mr. Elie El Khoury, ICAO Regional Officer, Air Traffic Management and Search and Rescue, Middle East Office, Cairo, who extended a warm welcome to all participants and wished them a successful meeting. He thanked all experts who made it to Abu Dhabi to support the meeting as well the Core Team members who were not able to join the meeting but their contribution to the work of the Team was highly appreciated.

3.   ATTENDANCE

3.1   The meeting was attended by seventeen (17) participants from Bahrain, India, Qatar, Saudi Arabia, UAE, CANSO, EUROCONTROL and IATA. The list of participants is at **Attachment A**.

3.2   The meeting noted that the representative of the Arab Civil Aviation Organization (ACAO) apologized for not having attended the meeting.

4.   OFFICERS AND SECRETARIAT

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

5.   DISCUSSIONS

5.1   The meeting reviewed the tasks assigned to the Core Team by the ATFM Task Force with a main objective to develop a draft ATFM Concept of Operations for the MID Region.

5.2   The meeting reviewed the responses to the survey received from 10 States as per the consolidated table at **Appendix A**. It was recognized that the MID Region is still in the first steps related to the establishment of ATFM capabilities. Accordingly, supporting States with the qualification of experts in ATFM as well as raising awareness should be given high priority.

5.3   The meeting noted with appreciation that India, FAA, CANSO, EUROCONTROL and other stakeholders are ready to provide the required support.

5.4   The meeting discussed all the scenarios for the implementation of ATFM at the regional level and agreed to consider only four scenarios to be presented to the ATFM TF/2 meeting.

5.5   The meeting agreed to a set of criteria to be used for the evaluation of the scenarios based on the severity of the challenge to achieve the criteria as well as its weight/importance on the success of the scenario. The scenarios and their evaluation results are at **Appendix B**.

5.6   The meeting emphasized that establishing a centralized ATFM Unit would be the optimal solution followed by the scenario in having 2 Centres for 2 participating areas, then a centralized scenario through a third party providing the ATFM service and the last one would the Multi-Nodal. However, considering the challenges, feasibility and time and efforts required, the Multi Nodal Scenario achieved the highest Score.

5.7   The meeting noted that for Asia Pacific Multi Nodal project; three document have been prepared and agreed upon by the States: CONOPS, Regional Framework and Common Operating Procedures, which would be used as basis for the development of the MID Region Documentation.

5.8   The meeting agreed that in order to start working on the ATFM CONOPS a decision should be made related to the framework to be implemented. In this respect, the meeting agreed to the following high level outline to be considered during the development of the CONOPS:

Phase I- Building State's National ATFM Capabilities:

1- Raising awareness related to ATFM

2- Establishing the regulatory framework for ATFM at national level

3- Establishment of ATFM Services within the ATS organizational structure (FOC, FMP, FMU, etc.)

4- Human resources

5- Training

6- Operating Procedures

7- National ATFM Team to ensure Collaborative Decision Making (CDM)

8- Tools to be used

9- Determine and declare Airspace and airports capacity

10- Establishment of State's National ATFM CONOPS

Phase II – Establishment of Regional Framework

1- Setting up the concept/framework for Cross border ATFM in the MID Region

2- Define which ATFM Measures would be required including GDPs (where applicable to be defined by States)

3- Agreement on the Format of the ATFM Messages

4- Means to be used for Communication between adjacent States ATFM FOC

5- Development of Common Operating Procedure (COP)

6- Agreement on LoA template for ATFM (App G of ATS LoA Template)

7- Agreement on the coordination procedures

8- Signature of LoAs between adjacent ATFM FOC

9- Establishment of platform to be used for sharing of information

Phase III- Implementation of Cross border ATFM

1- Exchange of information through the established platform and/or periodic daily teleconferences

2- Sharing of the ATFM Daily Plan

3- Implementation of the ATFM/CDM process for regulating traffic when required (regional and later inter-regional)

4- Post Implementation Review

5- Research and future development

5.9   The meeting discussed the Agenda of the ACAO/ICAO ATFM Workshop planned to be held in Casablanca, Morocco, 17-18 March 2019, back-to-back with the ATFM TF/2 and FWC2022 TF/2 meetings. In this respect, the meeting noted with appreciation that India, Saudi Arabia, UAE, USA, CANSO and EUROCONTROL will contribute to the Workshop with presentations and be part of the panel discussions.

6.   CLOSING

6.1   The meeting agreed to keep the work ongoing through emails and teleconferences to ensure the readiness of the required documentation to be presented to the meetings in Casablanca.

6.2   The meeting thanked UAE for hosting such an important meeting and for the generous hospitality.

Responses of the ATFM Questionnaire (November 2018)

Question			Bahrain	Egypt	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Sudan	UAE	
ATFM Structure and Organization													
1. Does your State have a regulatory requirement for ATFM to be implemented in your Flight Information Region (FIR)?			YES	YES	NO	YES	NO	YES	NO	YES	NO	NO	
2. Does your State have an operational requirement (e.g. demand exceeding capacity) for ATFM in your FIR?			YES	HECA, HEGN. HESH& ACC Sectors	NO	NO	NO	YES. Operational LoA with UAE ACC, Appendix G : Air Traffic Flow Management	YES	YES	NO	YES	
3. Does your State have future plans or initiatives for ATFM in your FIR?			YES	YES. Aerodromes TFC LOAD MONITOR &AMAN	NO	NO	Waiting for regional initiatives	YES. The CONOPS has not been developed.	YES	YES	NO	YES	
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.	ATFM Services		NO	YES	NO	NO	NO		NO	Q4/2019	NO	YES	
	ATFM Operational Manager		NO	YES	NO	NO	NO	Dec-19	NO	2019 - 2020	NO	YES	
	ATFM positions located in the following	National ATFM center	NO	YES CANC	NO	NO	NO		NO	2021-2022	Not Answer	Q4 2022	
		Area control center(s)	NO	YES. CHMI EUROCONTROL	NO		NO	Dec-19	NO	Q4/2019	NO	YES	
		Approach control(s)	NO	NO	NO	NO	NO		NO	Q1/2020	NO	NO	
		Control tower(s)	NO	NOPs EUROCONTROL	NO	NO	NO		NO	Q1/2020	NO	NO	
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		NA		NO	Not answered	NO			Currently, there is no dedicated resources for ATFM	Not Answered	Flow Operator (Departure)	
	Another Operational Position		NA	Delegated to ATC units	NO	Not answered	Receive CTOT from NM for traffic departing to EUR	Muscat ACC Planner controller			Not Answered		
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.	1. FIR(s)		OMAE & OEJD	NO	NO	NO	YES. Nicosia	OMAE	NO	Muscat, Bahrain, Cairo, Jordan, Khartoum, Sanaa and Doha Center	NO	YES. OOMM, OBBB, OEJD	
	2. Stakeholders	- Airport Operators	NO	NO	NO	NO	NO		NO	Jeddah Airport within hajj season	NO	NO	
		- Aircraft Operators	NO	NO	NO	NO	NO		NO	NO	NO	NO	
		- Military	NO	YES. MIL reservation	NO	NO	NO		NO	AirForce within hajj season	NO	NO	
		- General Aviation	NO	NO	NO	NO	NO		NO	NO	NO	NO	
		- ATFM Units	NO	YES.	NO	NO	NO		NO	NO	NO	NO	
		- National ATFM center	NO	NO	NO	NO	NO		NO	NO	NO	NO	
		- Area control center	NO	NO	NO	NO	NO		NO	Q4/2019	NO	NO	
		- Approach control	YES- DOHA	NO	NO	NO	NO		NO	Q1/2020	NO	YES. OMDB, OMAA, OMRK, OMFJ	
		- Control tower	NO	NO	NO	NO	NO		NO	Q1/2020	NO	NO	
		Comments						Operational LoA with UAE ACC, Appendix G : Air Traffic Flow					
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.	Airport Operators		YES		NO	YES. Close coordiantion by system	NO	Oman airports by 2020	NO	NO	NO	NO	
	Aircraft Operators		NO		NO		NO		NO	NO	NO	YES. UAE, ETD, FDB, ABY	
	Military		NO		NO		NO		NO	NO	NO	NO	
	General Aviation		NO		NO		NO		NO	NO	NO	NO	
	Area control center		NO		NO	YES. Close coordiantion by system	NO		NO	NO	NO	Yes. OMAE	

Question			Bahrain	Egypt	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Sudan	UAE	
	Approach control		NO		NO		NO		NO	NO	NO	YES. OMAA, OMDB, OMRK, OMFJ	
	Control tower		NO		NO		NO		NO	NO	NO	YES. OMSJ, OMRK, OMFJ	
	Other ANSP ATFM Units		NO		NO		NO		NO	NO	NO	NO	
	Other ANSP ATC Units		NO		NO		NO		NO	NO	NO	NO	
8. Does your State's ATFM unit(s) perform the following tasks? If future implementation planned, please add the date.	1. Create and distribute an ATFM daily plan		NA	Planned 2020	NO	NO	NO	NO	NO	2021-2022		Q4 2022	
	2. Collect the following relevant information	- meteorological conditions	NA	Planned 2020	NO	NO	NO	YES	NO	Q4/2019		YES	
		- capacity constraints	NA	Planned 2020	NO	NO	NO	YES	NO	Q4/2019		Q4 2022	
		- equipment outages	NA	Planned 2020	NO	NO	YES	YES	NO	Q4/2019		YES	
		- runway closures	NA	Planned 2020	NO	NO	YES	YES	NO	Q4/2019		YES	
		- procedural issues	NA	Planned 2020	NO	NO	NO	YES	NO	Q4/2019		YES	
	3. Analyze and distribute relevant information		NA	Planned 2020	NO	NO	NO	YES	NO	Q4/2019		YES	
	4.Coordination procedures with stakeholders (indicate method(e.g., voice meetings, email) and frequency) in the comments section		NA	Planned 2020	NO	NO	YES. In case of special events coordination is carried out with all stakeholders	YES. Voice meetings	NO	TBD		YES	
	5. Structured information dissemination process, i.e. website		NA	Planned 2020	NO	NO	Via letters/aeronautical publication	NO	NO	2019-2020		YES	
9. Are the following CDM elements included as part of your stakeholder's participation in the ATFM process?	1.Provide updated flight plan intent information (e.g., plans, changes, delays) provided by:	- Aircraft Operators	NO		YES	NO	NO	YES	NO	NO	NO	FPL, CHG, DLA, CNL	
		- Military	NO		YES	NO	NO	YES	NO	NO	NO	FPL	
		- General Aviation	NO		YES	NO	NO	YES	NO	NO	NO	FPL, CHG, DLA, CNL	
	2.Telephone conferences	- Airport	NO		YES	NO	NO	YES	NO	NO	NO	OMAA, OMDB, OMSJ, OMRK, OMFJ	
		- Military	NO		YES	NO	NO	YES	NO	NO	NO	NO	
		- Aircraft Operators	NO		YES	NO	NO	YES	NO	NO	NO	UAE, ETD, FDB, ABY	
		- General Aviation	NO		NO	NO	NO	YES	NO	NO	NO	NO	
		- ATFM Units	NO		NO	NO	NO	NO	NO	NO	NO	NO	
		- Other FIR ANSP's	NO		NO	NO	NO	YES	NO	NO	NO	NO	
	3.Web based interfaces	- Airport	NO		YES	NO	NO	NO	NO	NO	NO	OMAA, OMDB, OMSJ, OMRK, OMFJ	
		- Military	NO		NO	NO	NO	NO	NO	NO	NO	NO	
		- Aircraft Operators	NO		NO	NO	NO	NO	NO	NO	NO	ETD, UAE, FDB, ABY	
		- General Aviation	NO		NO	NO	NO	NO	NO	NO	NO	NO	
		- ATFM Units	NO		NO	NO	NO	NO	NO	NO	NO	NO	
		- Other FIR ANSP's	NO		NO	NO	NO	NO	NO	NO	NO	NO	
	Comments									We are developing working measures and procedures for ATFM to be introduced ATFM system by Q4 -2019			
10. Does your State provide standardized and recurrent ATFM training for the following personnel and stakeholders? If standardized training is planned, please add date.	1. Personnel performing ATFM functions	- National ATFM center	NO	NO	NO	NO	NO	2020	NO	NO	NO	Q4 2022	
		- Area control center	NO	NO	NO	NO	NO	2020	NO	NO	NO	NO	
		- Approach control	NO	NO	NO	NO	NO	2020	NO	NO	NO	NO	
		- Control tower	NO	NO	NO	NO	NO	2020	NO	NO	NO	NO	
	2. Stakeholders	- Airports	NO	NO	NO	NO	NO	2020	NO	NO	NO	NO	
		- Aircraft Operators	NO	NO	NO	NO	NO	2020	NO	NO	NO	NO	
		- Military	NO	NO	NO	NO	NO	2020	NO	NO	NO	NO	
		- General Aviation	NO	NO	NO	NO	NO	2020	NO	NO	NO	NO	

Question			Bahrain	Egypt	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Sudan	UAE	
	Comments									SANS Staff in charge of ATFM (ATFCM section under ATM department) are scheduled in specialized training on ATFM and it's expected that all Staff will end the training by 2020-2021			
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?	Electronic ATFM display system Shared with:	1. FIR(s)	YES AMAN not shared	NO		NO	NO	YES	NO		NO	Q4 2022	
	2. Stakeholders	- Airport Operators	NO	NO	NO	NO		2020	NO		NO	Q4 2022	
		- Aircraft Operators	NO	NO	NO	NO		2020	NO		NO	Q4 2022	
		- Military	NO	NO	NO	NO		2020	NO		NO	Q4 2022	
		- General Aviation	NO	NO	NO	NO		2020	NO		NO	Q4 2022	
	Comments									Long Term Planned but not finalized yet			
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.	1.Airspace sectors		YES	YES	YES	NO	NO	2020	NO	Q2/2019	NO	NO	
	2.Waypoint(s) or boundaries		NO	NO	YES	NO	NO	2020	NO	Q1/2020	NO	NO	
	3.Airport acceptance rate(s) (arrival and departure)		NO		NO	NO	NO	2020	NO	Q1/2020	NO	NO	
	Comments									We are validating the ACC sector capacity and then we will move to airport acceptance rate			
13. How are the declared capacity values determined?			Determined by Operations using capacity management studies		Staffing methodology and manning level and procedures (ATM)		NA	Capacity values are not determined		Refer to questionnaire	Not answered	Not Declared	
14. Does your State have strategic airport arrival/departure slots? If planned, please indicate the dates:	Airport	Planned date	NA		OJAI & OJAQ (NO-Pending)			OOMS, OOSA 2020			No slots	OMAA, OMDB	
	Arrival	Planned date	NA		-						NA	OMAA, OMDB	
	Departure	Planned date	NA		-						NA	OMAA, OMDB	
15. Does your State have a methodology to balance demand and capacity in the following time frames?	Strategic (more than 1 day before operation)		NO	NO	NO	NO		NO	NO	NO	No methodology	NO	
	Pre-tactical (1 day before operation)		NO	NO	NO	NO		NO	NO	NO	No methodology	NO	
	Tactical (day of operation)		YES. Tactical oversight of sector volume with	NO	NO	NO		YES	NO	NO	No methodology	YES	
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							Not answered			NO	NO		
	1.Airspace design review		Yes. Early 2019	NO	NO	NO		NO 2019	Early 2019	NO		YES	
	2.ATFM support tools		YES	NO	YES. Statistical tool			YES	NO	NO		Q4 2022	
	3.Procedures review		YES	NO	NO	NO		NO 2019	Mid 2019	NO		YES	
	4.Staffing resources to workload / traffic review		YES	NO	YES. ATM Procedures	NO		YES	Mid 2019	NO		YES	
	5.ATFM Training completed		NO	NO	NO			NO 2020	NO	NO		Q4 2022	
	6.Forecast demand		NO	NO	NO			YES	YES	NO		Q4 2022	

Question		Bahrain	Egypt	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Sudan	UAE	
Comments									Currently we evaluate the statistical report and compare the last three years to define the traffic growth percentage and defined the peak hour as well to have an image how is the traffic demand will increase and take the initiative to implement flow management measure.			
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?		OMAE-OLDI OIXX-AFTN EST MSGs	LGGG-OLDI	YES. OSTT, OEJN, HECC, LLLL, ORBB	YES. OBBB, ORBB,OEJN, OIXX, OTBD	YES. All	ONLY WITH OMAE: ABI Advanced Boundary Information Message (including revised ABI's) ACT Activate Message LAM Logical Acknowledgement Message PAC Preliminary Activate Message	NO	SANS is implementing an IFPS that will be ready for operation during 2019. A transition roadmap is under development. The NEW ATM System is sharing the information throw OLDI	Yes (All)	**OOMM:** FPL, CHG, CNL, DEP, DLA **OBBB:** FPL, CHG, CNL, DEP, DLA, EST **OEJD:** FPL, CHG, CNL, DEP, DLA **OIXX:** FPL, CHG, CNL, DEP, DLA, EST	
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?		OKAC-Early 2019-OLDI OEJN-MID 2019-OLDI Doha Approach - OLDI, early 2019; Dammam Approach in conjunction with OEJD	BY 2020 AIDC with all except LCCC-OLDI	*Estimate Over Border OSTT, OEJN, HECC, LLLL, ORBB*		Yes. Nicosia and Damascus	Planned 2019: **Mumbai:** AIDC messages : ABI, PAC, CDN, CPL, ACP, REJ, MAC, LAM, and LRM will be established between Muscat ACC and Mumbai OCC **Jeddah:** ABI Advanced Boundary Information Message (including revised ABI's) ACT Activate Message LAM Logical Acknowledgement Message PAC Preliminary Activate Message	YES. OBBB, OEJN, OMAE date TBD	OJAC by 03/2019 Type X AMHS/SITA BY 2020 with OBBB, OKAC, OOMM	Yes		
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.		NO	Yes. EURO CONTROL	NA	NO	NO	2020 with all adjacent FIRs	NO	NO	NO	NO	
20. Does your State share adjacent sector capacity information with other FIRs? If there are plans to exchange sector capacity information, please provide date.		NO		NA	NO	NO	2020 with all adjacent FIRs	NO	NO	NO	NO	
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?		NO		NA	NO	NO	NO	NO	NO		NO	
	Airport Demand						NO	NO	NO	NO	NO	NO	
	Sector Demand						NO	NO	NO	NO	NO	NO	
	Route/Airway Demand						NO	NO	NO	NO	NO	NO	
22. Does your State have automated Tactical (day of the operation) demand monitoring		NO		NA	NO	NO	NO	NO	NO		YES	
	Airport Demand						NO	NO	NO	NO	NO	YES	

Question	Bahrain	Egypt	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Sudan	UAE
operation) demand monitoring capability? If yes, is the information shared with other FIRs? — Sector Demand					NO	NO	NO	NO	NO	YES
Route/Airway Demand					NO	NO	NO	NO	NO	YES
Arrival Management					NO	NO	NO	NO	NO	YES
23. Does your State have Strategic, Pre-tactical and Tactical planning agreements with other FIRs?	NO	NO	NO	NO	NO	Only tactical ATFM operations is implemented between Muscat and UAE FIRs. These take the form of a traffic acceptance rate through affected waypoints, based on take-off times. A figure of 3 (three) flights every 10 minutes per waypoint is used and the 10 minute period will start from the imposition of the flow procedures.	NO	NO	NO	NO
24. Are there plans to initiate these agreements?	NO	NO	NO		NO	NO	Yes at the outcome of the ATFM/TF and for future regional event planning.	After implementation of IFPS, we will implement ATFM procedures with Bahrain FIR with progressive introduction of ATFCM operation covering Jeddah FIR as initial phase. The implementation of ATFM measures cane be extended to adjacent FIRs	NO	NO
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	YES Created High/Low splits to manage volume (East High/East Low, Central High/Central, North/North Low)		NO	NO	NO	Yes . OOMS airport.		YES. Refer to questionnaire	NO	OMDB, ACCE, ACCY, ACCR, ACCW, ACCN
26. Does your State initiated/implemented the following Air Traffic Management Measures (ATFM Measures) internally?				NO	YES			YES	Yes	
Miles-in-trail (MIT)	YES LATSI LoA	NO	YES	NO	YES	YES	YES	NO	NO	YES
Minutes-in-trail (MINIT)	NO	NO	YES	NO	YES	YES	NO	YES	NO	NO
Speed restrictions	YES LoA	YES	YES	NO	YES	YES	YES	YES	YES	YES
Airborne Holding	YES	YES	NO	NO	YES	YES	YES	YES	YES	YES
Fix balancing	NO	NO	NO	NO	NO	NO	NO	NO		NO
Altitude/Flight Level capping	YES-AIP	YES	NO	NO	NO	NO	YES	NO		NO
Tactical alternative routing options	NO	NO	YES	NO	NO	YES	YES	YES		YES
Fix crossing times	NO	NO	NO	NO	YES	YES	NO	YES	YES	YES
Airport slot	NO	NO	NO	NO	NO	YES	NO	NO	NO	YES
Minimum departure intervals (MDIs)	NO	YES	NO	NO	YES	YES	NO	NO	NO	YES
Published, pre-defined alternative routes	NO	NO	NO	NO	NO	NO	NO	YES	NO	YES
Ground delay program (GDP) – airport arrival constraint	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES
Ground stop (GSt)	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES

Question		Bahrain	Egypt	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Sudan	UAE	
	Ground delay program (GDP) – airspace constraint (also known as airspace flow program: AFP)	YES- *5 min* departure spacing implemented tactically	NO	NO	NO	NO	NO	NO	NO	NO	YES	
27. When determining an ATFM Measure, are the following factors considered?	Demand exceeds capacity	YES		NO		YES	YES	YES	YES			
	Weather	YES		YES		YES	YES	NO	YES		YES	
	Military exercises	YES		YES		YES	NO	NO	YES		YES	
	Resources	YES		YES		YES	YES	NO	YES		YES	
	Maintenance / outages	YES		YES		YES	YES	NO	YES		YES	
	VIP movements	YES		YES		YES	YES	NO	YES		YES	
28. Does military airspace/activity cause the use of ATFM Measures? If yes, please explain.		NO		NO	NO	YES	NO	NO	In general, yes, because when Reserved Military Airspace is active, the available airspace for civil flights is impacted leading to apply ATFM measures	NO	NO	
29. Is the military airspace/activity included in strategic planning?		YES		YES		NA	NO	NO	Yes, it's included, and the civil military coordination section is working on flow management measure initiatives through Joint-committee		NO	
30. How is the effectiveness of the ATFM Measure analyzed?		Periodic procedures review		NA		NA	The use of flexible statistical tools to effectively analyze and report on the metrics	NA	By measuring the degree of implementation		☐ Departures: o Monthly DST Compliance and Ground delay ☐ Arrivals: o Runway throughput and airborne delay	
31. What are the primary demand-capacity imbalance reasons for the ATFM Measures?	Airport capacity			NO			OOMS		OEJN, OERK, OEMA, OEDF and OEAB		OMDB	
	Sector capacity	East High, Central, North - demand exceeds capacity;		YES			Central sector	YES	ACC-West, ACC-northeast upper and lower			
	Route/Airway capacity			NO			TONVO A777 NADSO and LALDO B525 NADSO	YES	L604, L677, L550& UL768			
	Other			NO								
	Comments			procedure includes the formula								
32. Does your State initiate the following ATFM Measures with adjacent FIRs?	Miles-in-trail (MIT)	OMAE		YES	NO	YES	OMAE	NO	YES		OOMM, OIIX, OBBB	
	Minutes-in-trail (MINIT)	NO		YES	NO	YES	OMAE	NO	YES. Muscat, Bahrain, Cairo, Jordan, Khartoum, Sanaa and Doha		OEJD	
	Speed restrictions	NO		YES	NO	YES	OMAE	NO	YES		OOMM, OIIX, OBBB, OEJD	
	Airborne Holding	NO		NO	NO	YES		NO	YES		OOMM, OIIX, OBBB, OEJD	
	Fix balancing	NO		NO	NO	NO		NO	NO		OOMM, OIIX, OBBB, OEJD	
	Altitude/Flight Level capping	OMAE, OKAC		NO	NO	NO		NO	YES. AMMAN, DOHA, BAHRAIN, KUWAIT & CAIRO		OIIX, OOMM	
	Alternative routing options	NO		NO	NO	NO	OMAE	NO	YES		OBBB, OEJD, OOMM	

Question		Bahrain	Egypt	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Sudan	UAE	
	Fix crossing times	NO		NO	NO	YES	OMAE	NO	YES		OOMM, OEJD	
	Airport slot	NO		NO	NO	NO		NO	YES		NO	
	Minimum departure intervals (MDIs)	NO		NO	NO	YES		NO	YES		OOMM, OIIX	
	Published, pre-defined alternative routes	NO		NO	NO			NO	YES		NO	
	Ground delay program (GDP) – airport arrival constraint	NO		NO	NO			NO	YES		OOMM, OEJD	
	Ground stop (GSt)	OMAE, OEJD, OKAC		NO	NO			NO	YES		OOMM, OIIX, OBBB, OEJD	
	Ground delay program (GDP) – airspace constraint (also known as airspace flow program; AFP)	NO		NO	NO			NO	YES		NO	
33. What is taken into consideration when an ATFM Measure is implemented			Volume and sector capacity, weather, outages		Delay action/holding/miles in trail/minutes in trail			ATCO workload, traffic demand/sector capacity, Airspace complexity and weather.	Capacity overload	• Reduction of ATCOs workload to ensure the safe provision of ATS; • Reduction of congestion and operating costs		Demand Exceeds capacity, Weather, Military Exercises, Resources, Maintenance/ Outages, Vip movements	
34. How is the duration of the selected ATFM Measure determined?			Tactical decision based on real-time information		Regional coordination.			The duration of the selected ATFM Measure is determined based on extent of over demand	By traffic levels	Declared capacity will be the main factor that is considered in the application of ATFM measures. When the capacity is reached, ATFM measures are applied until the capacity is exceeding the demand by at least 10%. Therefore, the timing will vary demanding on the level of traffic		Sector and aerodrome forecast, as well as duration requirements by accepting unit	
35. Does your ANSP carry out any post-operations analysis?			NO		NA			PACA carry out any post-operations analysis using the flexible statistical tools to generate report on the metrics	NO	SANS are using the post-analysis to determine the bottleneck, Peak hour, congested airway, waypoint and congested aerodrome. This practice will improve enhance with the implementation of activation of ATCFM section		YES	
36. How is the effectiveness of the ATFM Measure analyzed?			NA		NO			The use of flexible statistical tools to effectively analyze and report on the metrics	Unknown	Refer to question number 30		Departures: o Monthly DST Compliance and Ground delay ▢ Arrivals: o Runway throughput and airborne delay	
37. Are the ATFM Measures included in LOAs?			YES		NO	NO	YES	Operational LoA with UAE ACC, Appendix G : Air Traffic Flow Management	NO	No, it will be included in the ATM operation manual and later on LoA		YES	
38. Does your State communicate ATFM Measures through automated or verbal communication with adjacent FIRs?	Miles in trail			Automated and verbal with OKAC, OEJD, OMAE	Verbal		Verbal	Verbal OMAE		Verbal: Muscat, Bahrain, Cairo, Jordan, Khartoum, Kuwait,		Verbal	
	Speed restrictions				Verbal		Verbal	Verbal OMAE				Verbal	

Question		Bahrain	Egypt	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Sudan	UAE	
	Holding			Verbal		Verbal			Verbal: Muscat, Bahrain, Cairo, Jordan, Khartoum, Kuwait, Sanaa and Doha		Verbal	
	Altitude			Verbal		Verbal	Verbal OMAE		Verbal: Muscat, Bahrain, Cairo, Jordan, Khartoum, Kuwait, Sanaa and Doha		Verbal	
	Fix crossing times			Verbal		Verbal	Verbal OMAE		Verbal: Muscat, Bahrain, Cairo, Jordan, Khartoum, Kuwait, Sanaa and Doha		Verbal	
	Airport arrival times			Verbal					Verbal: Muscat, Bahrain, Cairo, Jordan, Khartoum, Kuwait, Sanaa and Doha		Verbal	
	Ground delay programs – airport arrival constraint			Verbal					Verbal: Muscat, Bahrain, Cairo, Jordan, Khartoum, Kuwait, Sanaa and Doha		Verbal	
	Ground stops	Verbal		Verbal					Verbal: Muscat, Bahrain, Cairo, Jordan, Khartoum, Kuwait, Sanaa and Doha		Verbal	
	Ground delay program – airspace constraint			Verbal					Verbal: Muscat, Bahrain, Cairo, Jordan, Khartoum, Kuwait, Sanaa and Doha		Verbal	
	Comments	Miles in trail by NOT AM		Verbal								
39. If your State have future ATFM initiatives planned **with other FIRs** please list them below.			NA	NA								
	Initiative Title						Regional ATFM Implementation with MID Member States			Waiting for regional initiatives	Cross Border Arrival Management (X-MAN)	
	Primary Functions										Absorb delay en-route	
	Status (Planning, Approved, Implementation, Testing)						Planning				Planning	
	Initial Operational Capability Date						TBD				Q2 2019	
	Full Operational capability Date						TBD				Q2 2021	
	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											
40. If your State have future				NO								

Question		Bahrain	Egypt	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Sudan	UAE	
ATFM initiatives planned, please list them below.	Initiative Title						CDM EXCHANGE OF DATA with UAE		SFAC-ATFCM Saudi future airspace concept project and air traffic flow and capacity management system	Waiting for regional initiatives	Airport CDM and Departure Manager	
	Primary Functions								Re-structuration of the whole airspace and implementation of ATFM system		Collaborative Departure Sequencing	
	Status (Planning, Approved, Implementation, Testing)						Planning		Planning/Tendering		Testing	
	Initial Operational Capability Date								2022		Q4 2018	
	Full Operational capability Date								2023		Q2 2021	
	Comments	Bahrain is in the process of building a new FIC and implementing a new ATM system which will include integration of ATFM functionality such as SWIM capabilities, AMAN/DMAN. Est. completion mid 2020.										
				NO								
	Initiative Title						CDM EXCHANGE OF DATA with UAE		IFPS initial flight plan processing system	Waiting for regional initiatives		
	Primary Functions								Exchange ATS service massages and FPL			
	Status (Planning, Approved, Implementation, Testing)						Planning		In progress, designing phase			
	Initial Operational Capability Date								Q4/2019			
	Full Operational capability Date								Q2/2020			
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:	B0- A-CDM *Improved Airport Operations through Airport-CDM*		End 2019 Planning/Coordination completed. Design/config. In progress		Implemented		Planned	2019	Mid 2019	TBD		Q4 2020	
	B0-RSEQ *Improved Traffic Flow through Runway Sequencing (AMAN/DMAN)*		Partially Full by 2020		Not Implemented			2019	Mid 2019	Q3-2019		Implemented	

Question		Bahrain	Egypt	Jordan	Kuwait	Lebanon	Oman	Qatar	Saudi Arabia	Sudan	UAE	
B0-FICE *Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration*		Partially Full by 2021		Planning no date		Planned	2019		End of 2019 AMHS capability End of 2019 AIDC/ OLDI capability end 2019		Implemented	
B0-DATM *Service Improvement through Digital Aeronautical Information Management*		Implemented		in the process		Planned	2020		Ongoing. Ref questionnaire		Implemented	
B0-FRTO *Improved Operations through Enhanced En-Route Trajectories*		Partially Full by 2020 Current status: Pre Tactical basis		Implemented		Planned	2019		Ongoing. Ref questionnaire		Q4 2020	
B0-NOPS *Improved Flow Performance through Planning based on a Network-Wide view*		Partially Established ATFM measures		NO		Planned	2020		2022		Q4 2022	
B1- A-CDM *Optimized Airport Operations through A-CDM Total Airport Management*		End 2019		NO			2020		TBD		Q2 2021	
B1-RSEQ *Improved Airport operations through Departure, Surface and Arrival Management*		Partially full by 2020		NO			2019		2021		Q2 2021	
B1-FICE *Increased Interoperability, Efficiency and Capacity through FF-ICE/1 application before Departure*		Partially Full by 2020		NO			2019		2020		Q2 2021	
B1-DATM *Service Improvement through Integration of all Digital ATM Information*		Partially Full by 2020		NO			2020		2021		Q2 2021	
B1-SWIM *Performance Improvement through the application of System Wide Information Management (SWIM)*		2020		NO			2022		Q4 2020		Q2 2019	
B1-NOPS *Enhanced Flow Performance through Network Operational Planning*		Dependent on Regional agreement Planning phase		NO			2022		2022		Q4 2022	
B1-AMET *Enhanced Operational Decisions through Integrated Meteorological Information*		2020		Ongoing			2022		Q4 2020		Q4 2020	
B1-TBO *Improved Traffic Synchronization and Initial Trajectory-Based Operation*		Partially by 2020		NO			2022		Q4 2020		Q4 2020	

#	Criteria/Advantages/Challenges	1- One ATFM Centre for the MID Region	2- Centralized ATFM services through 3rd party from outside the	3- Two ATFM Participating Areas	4- Multi-Nodal Cross border ATFM	Weight (1 to 6)	1- One ATFM Centre for the MID Region	2- Centralized ATFM services through 3rd party from	3- Two ATFM Participating Areas	4- Multi-Nodal Cross border ATFM
1	Institutional Framework (legal, financial, funding mechanism, etc.)	3	3	4	5	6	18	18	24	30
2	Time required for the States to join the project (legal, Financial, etc.)	1	2	3	5	6	6	12	18	30
3	Political issues	1	1	3	5	6	6	6	18	30
4	Agreement on the Location	1	5	3	5	6	6	30	18	30
5	Funds required as a regional project (Centre) (cost)	3	1	2	5	6	18	6	12	30
6	Manpower (Centre)	3	5	1	5	4	12	20	4	20
7	Harmonized ATFM National procedures	5	3	4	3	3	15	9	12	9
8	Centralized Decision Making	5	5	4	2	3	15	15	12	6
9	Regional and cross regional coordination	5	5	4	2	3	15	15	12	6
10	Data Consistency/availability	5	5	4	3	3	15	15	12	9
11	Time needed for establishing the ATFM Framework	2	5	3	5	4	8	20	12	20
12	Third party could provide the service	5	5	5	0	2	10	10	10	0
13	Single system supplier and maintenance	5	2	3	0	2	10	4	6	0
14	Evolution process	5	3	4	3	2	10	6	8	6
15	Concentrated Team	5	5	3	2	2	10	10	6	4
16	Crisis management	5	5	4	4	2	10	10	8	8
17	Effective Airspace Management	5	5	3	2	2	10	10	6	4
18	Integration with regional IFPS	5	5	4	2	2	10	10	8	4
19	Stakeholders simplicity	5	5	3	2	3	15	15	9	6
20	Data collection that would be used by States	5	5	4	2	2	10	10	8	4
21	Centralized Post Assessment process	5	5	4	2	2	10	10	8	4
22	Support optimization of the use of the MID Region available airspace	5	3	4	3	2	10	6	8	6
23	Research and Development at regional level	5	5	5	2	2	10	10	10	4
24	States' willingness for Data Sharing with the ATFM Regional Centre(s) including Military Flights	2	2	2	5	6	12	12	12	30
25	Contingency Operations	1	5	5	5	3	3	15	15	15
26	local customization and integration systems	1	3	2	5	1	1	3	2	5
27	Common ATFM Messages Format	5	5	4	2	2	10	10	8	4
28	Compliance with ATFM Measures	5	5	3	2	2	10	10	6	4
29	Possibility of successful implementation	1	2	3	5	6	6	12	18	30
30	Timeframe to start operation	1	3	3	4	5	5	15	15	20
		306	354	325	378	100	306	354	325	378

Legend :   *Rating from 0 to 5 (5 is the best)*

Challenge

High	Moderate	Low

CUMULATIVE RESULT

306 — 1- ONE ATFM CENTRE FOR THE MID REGION
354 — 2- CENTRALIZED ATFM SERVICES THROUGH 3RD PARTY FROM OUTSIDE THE MID REGION
325 — 3- TWO ATFM PARTICIPATING AREAS
378 — 4- MULTI-NODAL CROSS BORDER ATFM IN THE MID REGION
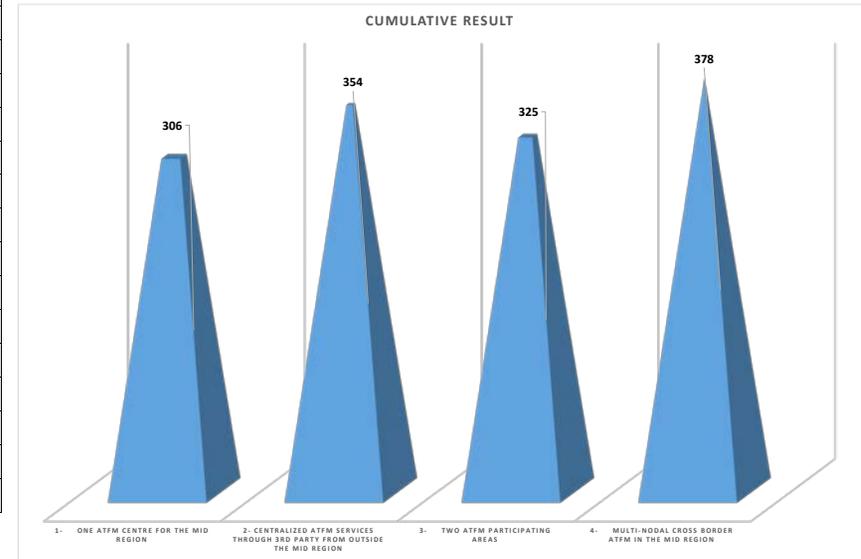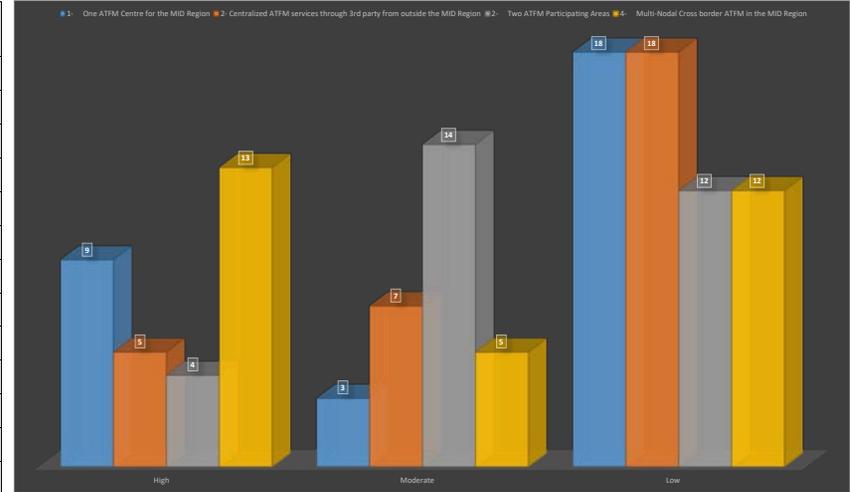
LIST OF PARTICIPANTS

NAME	STATE/ORGANIZATION
Mr. David Edward Christmas	Bahrain
Mr. Manjunath Krishna Nelli	India
Mr. Kevin Cooper	Qatar
Mr. Saleh Al Zahrani	Saudi Arabia
Mr. Ahmad Abughalab	Saudi Arabia
Mr. Hamad Rashid Al Belushi	UAE
Mr. Mohammed Al Baloushi	UAE
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Mr. Robert Roxbrough	USA/FAA
Mr. Stuart Ratcliffe	CANSO
Mr. Keith Crawford	EUROCONTROL
Mr. George Rhodes	IATA
Mr. Ekkehard Gutt	IATA
Mr. Saeed AlSuwaidi	IATA
Mr. Issa Al Rawahi	IATA
Elie El Khoury	ICAO

ACTION PLAN FOR IMPLEMENTATION OF ATFM IN THE MID REGION

Key Activities	No	Action Description	Target date	Deliverable	Champion	Supported by	Status/RMK
Key Activity 1 Agreement on the ATFM Regional Framework	1.	Recommending the best Scenario for a regional ATFM framework	20 Mar 2019	Recommendation	ATFM TF/2 meeting		Completed
	2.	Presentation to the ACAO ANC/40	21 Mar 2019	Support	ACAO		
	3.	Preparing a Working Paper to MIDANPIRG/17	30 Mar 2019	WP	Secretariat	Chairman	
	4.	Agreement on the regional ATFM framework by MIDANPIRG	18 Apr 2019	MIDANPIRG Conclusion	MIDANPIRG/17	Secretariat	
	5.	Presentation to the ACAO Executive Council	28-29 Apr 2019	For support	ACAO		
	6.	Notifying States about MIDANPIRG/17 Conclusion and that the development of ATFM CONOPS started	30 Apr 2019	State Letter	ICAO	Chairman	
Key Activity 2 Development of Draft CONOPS	7.	Development of a Draft ATFM CONOPS	10 Jul 2019	Draft ATFM CONOPS	ATFM Core Team		
	8.	Circulating the Draft ATFM CONOPS to States	15 Jul 2019	State Letter	ICAO	ACAO	
	9.	Feedback form States on the Draft ATFM CONOPS	15 Aug 2019	Feedback	States		
	10.	Consolidation of the Draft ATFM CONOPS for presentation to the ATM SG/5 meeting	30 Aug 2019	Consolidated version of ATFM CONOPS	Secretariat	Chairman ATFM Core Team	
	11.	Agreement on the Draft ATFM CONOPS	11 Sep 2019	Draft ATFM CONOPS	ATM SG/5		
	12.	Circulating the Draft ATFM CONOPS	25 Sep 2019	State Letter	ICAO	ACAO	
	13.	Presentation to DGCA-MID/5	Nov 2019	For Info and Support	ICAO		
	14.	Presentation to ACAO Executive Council	Dec 2019	For Info and Support	ACAO		
Key Activity 3 Development of ATFM Regional Framework and	15.	Development of Initial Draft ATFM Regional Framework and draft ATFM Common Operating Procedures	31 Dec 2019	Initial Draft ATFM Regional Framework and draft Common Operating Procedures	ATFM Core Team	Face-to-face meeting(s) might be required	

draft Common Operating Procedures based on the agreed CONOPS	**16.**	Agreement on the Draft Regional Framework and draft Common Operating Procedures	13 Jan 2020	Draft ATFM Regional Framework and draft Common Operating Procedures	ATFM TF/3 meeting (12-13 Jan 2020)		
	17.	Circulating the Draft Regional Framework and draft Common Operating Procedures to States	20 Jan 2020	State Letter	ICAO	ACAO	
	18.	Feedback form States on the Draft ATFM Regional Framework and draft Common Operating Procedures	10 Mar 2020	Feedback	States		
	19.	Consolidation of a Draft Regional Framework and draft Common Operating Procedures for presentation to the MSG/7 meeting	25 March 2020	Consolidated version of Draft ATFM Regional Framework and draft Common Operating Procedures	Secretariat	Chairman ATFM Core Team	
	20.	Presentation to ACAO Executive Council	Apr 2020	For Info and Support	ACAO		
	21.	Endorsement of the ATFM CONOPS, Regional Framework and Common Operating Procedures including agreement on a roadmap for the implementation	17 Jun 2020	ATFM CONOPS, Regional Framework and Common Operating Procedures	MSG/7 (15-17 Jun 2020)		
	22.	Circulation of the CONOPS, Regional Framework and Common Operating Procedures and posting them on the ICAO MID Website	30 Jun 2020	State Letter	ICAO	ACAO	
	23.	Presentation to ACAO Executive Council	Dec 2020	For Info and Support	ACAO		
Key Activity 4 Implementation of the MID ATFM Regional Framework and Common Operating Procedures based on the agreed CONOPS	**24.**	Implementation of the MID ATFM Regional Framework and Common Operating Procedures	Cont.	Implementation of ATFM Regional Framework and Common Operating Procedures	States		
	25.	Implementation of ATFM framework at national level	Cont.	National ATFM framework	States		

Key Activity 5 Post Implementation Review of the MID ATFM Regional Framework	26.	Post implementation review	Each 3 months	Post Implementation review	ATFM Core Team		
	27.	Improvement of the ATFM Regional Framework and Common Operating Procedures	TBD 2021	Proposal for improved ATFM Regional Framework and Common Operating Procedures	ATFM TF	ATFM Core Team	
	28.	Review and continuous improvement of the ATFM Implementation in the MID Region with consideration of establishment of centralized ATFM system for the MID Region	TBD	Continuous improvement	ATFM TF	ATFM Core Team	
Key Activity 6 Training and raising awareness related to ATFM	1.	Development of Training Programme Template for qualifying ATFM Specialist	31 Dec 2019	Training Programme Template for ATFM Specialist	ATFM TF / ATFM Core Team		
	2.	Development of working arrangement for the ATFM Visits to States that would include ATFM Workshop and/or training courses	31 Dec 2019	working arrangement for the ATFM Visits	ATFM TF / ATFM Core Team		
	3.	Organizing an ATFM Workshop with the planned A-CDM Workshop	21-23 Oct 2019	A-CDM/ATFM Workshop	ICAO/ACAO	ATFM TF	
	4.	Organizing of ATFM Training Courses	TBD 2020/ 2021	ATFM Training Courses	ICAO/ACAO	TBD	
	5.	Conduct ATFM Support visits to States	TBD 2020/ 2021	ATFM Support visits	ATFM support Team	TBD	
	6.	Conduct familiarization visits to CADENA, Singapore, India, EUROCONTROL, FAA, etc.	TBD	ATFM Familiarization Visits	ACAO ICAO		

Actions to be achieved before the FWC2022 TF/3 meeting

Action		Target date	Deliverable	Champion	Supported by	Status
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	
2.	Task the MIDRMA to carry out an airspace assessment for the MID Region based on the anticipated traffic flow during the FWC2022.	18 Apr 2019	MIDANPIRG Conclusion	MIDANPIRG	ICAO	
3.	Provide the projected Qatar FPL/Traffic data to the MIDRMA using the excel sheet template	30 May 2019	Qatar FPL/Traffic data for 15 Nov – 25 Dec 2022	Qatar	MIDRMA ICAO	
4.	Assess the airspace using the projected Traffic Data	15 Aug 2019	Airspace assessment	MIDRMA		
5.	Present the results of the airspace assessment to the ATM SG/5 meeting	8-11 Sep 2019	WP to ATM SG/5	MIDRMA	ICAO	
6.	Presentation to the DGCA-MID/5 meeting for appropriate action	4-6 Nov 2019	WP to DGCA-MID/5	Chairman	ICAO MIDRMA	
7.	Conduct familiarization visit(s) to State(s) or Organizations that would be managing major events	TBD	Familiarization visit(s)	Qatar and Members of FWC2022 TF, as required	FAA EUROCONTROL CANSO AEROTHAI	
8.	Prepare an initial FWC2022 Roadmap to be presented to FWC2022 TF/3 that includes all required procedures, action plan, contingency measures, etc.	13 Jan 2020	Initial FWC2022 Roadmap	Chairman ICAO	CANSO FAA EUROCONTROL	
9.	Provide update from Qatar to FWC2022 TF/3	13 Jan 2020	Update from Qatar	Qatar		

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