



International Civil Aviation Organization

**MIDANPIRG Air Traffic Management Sub-Group**

**Fourth Meeting (ATM SG/4)**  
*(Amman, Jordan, 29 April – 3 May 2018)*

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**Agenda Item 5:           Airspace Management Issues**

**AIR TRAFFIC FLOW MANAGEMENT**

*(Presented by the Secretariat)*

<p style="text-align: center;"><b>SUMMARY</b></p> <p>This paper presents the outcome of the MIDANPIRG/16 meeting related to ATFM for the meeting follow-up actions.</p> <p>Action by the meeting is at paragraph 3.</p>
<p style="text-align: center;"><b>REFERENCES</b></p> <p>- MIDANPIRG/16 Report</p>

**1.       INTRODUCTION**

1.1           The MIDANPIRG/16 meeting was held in Kuwait, from 13 to 16 February 2017.

**2.       DISCUSSION**

2.1           The MIDANPIRG/16 meeting was apprised of the outcome of the ICAO ATFM Seminar (Dubai, UAE, 13-15 December 2016). It was highlighted that the third day of the Seminar was dedicated to the ICAO MID Region to address the challenges facing the MID States related to air traffic flows and agree on the way forward for Collaborative ATFM implementation in the MID Region, taking into consideration the lessons learned and best practices presented during the first two days of the Seminar. The Seminar recognized the need for a collaborative phased approach toward the implementation of a regional ATFM system in accordance with the region requirements.

2.2           The main recommendations of the Seminar are as follows:

- establishment of a ATFM TF/WG under the ATM SG;
- development of ATFM Concept of Operations taking into consideration Asia Pacific and Europe experiences;
- need to raise awareness about ATFM;
- conduct training courses related to ATFM;
- States to consider the establishment of ATFM Cell or National Operation Centre composed of all concerned Stakeholders;
- carry out a survey to determine airspace and sector capacity, hotspots, ATFM systems/measures, etc.;

- expedite MID IFPS project implementation; and
- continue working on airspace improvements.

2.3 The MIDANPIRG/16 meeting encouraged States and Stakeholders to implement the Recommendations emanating from the ATFM Seminar. Accordingly, the meeting agreed to following Decision:

*DECISIONS 16/16: ATFM TASK FORCE*

*That,*

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

2.4 The ICAO MID Office issued State Letters Ref.: AN 6/5.5-17/121 dated 12 April 2017 requesting States and Organizations to nominate their ATFM Focal Points. The consolidated list of the MID Region ATFM Focal Point is at **Appendix A**.

2.5 As a follow-up action to the MIDANPIRG Decision 16/16, the ATM SG/3 meeting agreed to the ATFM Task Force Terms of Reference (ToRs) at **Appendix B** through the following Draft Decision:

*DRAFT DECISION 3/6: TERMS OF REFERENCE OF THE MID ATFM TASK FORCE*

*That, the Terms of Reference of the MID ATFM Task Force at Appendix 5C (Appendix B to this paper) are endorsed.*

2.6 The meeting may wish to note the ATFM TF/1 meeting has been postponed to 23-25 September 2018 to be hosted by Oman in Muscat back-to-back with the World Cup 2022 TF/1 meeting. The ATFM Task Force should take into consideration all previous initiatives related to ATFM implementation during the development of the ATFM Concept of Operations.

2.7 The ICAO MID Office will initiate the work of the ATFM TF through correspondence, email and teleconferences, after the ATM SG/4 meeting.

2.8 The meeting may wish to recall that the ATM SG was tasked to agree on revised elements for the ASBU B0-NOPS with their associated indicators, metrics, applicability and targets. The ATM SG should also agree on the monitoring table for the B0-NOPS to be included in the MID eANP Volume III. In this respect, the Secretariat is changes to the B0-NOPS and the Monitoring Table as at **Appendix C**.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) update the list of the MID ATFM Focal Point at **Appendix A**;
- b) review and update as deemed necessary the draft terms of reference of the ATFM Task Force at **Appendix B**;
- c) review the ASBU Module B0-NOPS and the draft Monitoring Table of the B0-NOPS at **Appendix C** that should be included in the MID eANP Volume III; and
- d) encourage States and Stakeholders to actively participate in the ATFM TF/1 and World Cup 2022 TF/1 meetings that will be held in Muscat, Oman from 23 to 27 September 2018.

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APPENDIX A

LIST OF ATFM FOCAL POINTS

STATE	NAME	TITLE	ADDRESS	E-MAIL	FAX	TELEPHONE	MOBILE
BAHRAIN	Mr. Ahmed Mohammed Bucheeri	Head Air Traffic Operation	Civil Aviation Affairs (CAA)	<a href="mailto:a.ali@mtt.gov.bh">a.ali@mtt.gov.bh</a>	-	+973 17 321158	+973 395 22696
EGYPT	Nav. Tayseer Mohamed Abdelkareem	General Manager of ATS	Egyptian Civil Aviation Authority (ECAA)	<a href="mailto:tayseer.mohamed@civilaviation.gov.eg">tayseer.mohamed@civilaviation.gov.eg</a> <a href="mailto:tayseerkasem73@gmail.com">tayseerkasem73@gmail.com</a>	-	-	+2 0100 522 8675
IRAN							
IRAQ	Mr. Fadel Gatea	Director ATS	Iraq Civil Aviation Authority (ICAA)	<a href="mailto:atc@iraqcaa.com">atc@iraqcaa.com</a>		+964 77 16440448	+964 7828844998
JORDAN	Mr. Fawaz Abdallah	Director of ANS-Queen Alia International Airport	Civil Aviation Regulatory Commission (CARC)	<a href="mailto:dans-qa@carc.gov.jo">dans-qa@carc.gov.jo</a>	+962 6 4451619	+962 6 4451666	+962 798545053
KUWAIT	Mr. Ahmed Alkhalaf						
	Mr. Tariq Alghareeb						
LEBANON							
LIBYA							
OMAN	Mr. Mubarak Saleh Al-Gheilani	Director Air Traffic Control Services - A/Sr. Director Quality & Safety	Public Authority for Civil Aviation (PACA)	<a href="mailto:m.alghelani@paca.gov.om">m.alghelani@paca.gov.om</a>	-	+968 2435 4867	+968 9507 6157
QATAR							

STATE	NAME	TITLE	ADDRESS	E-MAIL	FAX	TELEPHONE	MOBILE
SAUDI ARABIA							
SUDAN	Mr. Sabri Mohamed Hassan	Manager Area Control Centre	Sudan Civil Aviation Authority (SCAA)	<a href="mailto:sabrimohamed@scaa.gov.sd">sabrimohamed@scaa.gov.sd</a> <a href="mailto:sabri_662000@yahoo.com">sabri_662000@yahoo.com</a>			+249 123 288098
SYRIA							
UAE	Mr. Hamad Rashid Al Belushi	Director of Air Traffic Management	ANS   Sheikh Zayed Air Navigation Centre   GCAA	<a href="mailto:hbelushi@szc.gcaa.ae">hbelushi@szc.gcaa.ae</a>	+971 2 599 6836	+971 2 599 6836	+971 50 616 4350
USA	Mr. Greg Hebert	Manager, Europe/Africa/ Middle East (Acting)	Federal Aviation Administration (FAA)	<a href="mailto:gregory.hebert@faa.gov">gregory.hebert@faa.gov</a>	-	+1 202 267 1189	
YEMEN							
AACO	Mr. Rashad Karaky	Director - Technical Department	Arab Air Carriers Organization (AACO)	<a href="mailto:etm@aaco.org">etm@aaco.org</a> <a href="mailto:rkaraky@aaco.org">rkaraky@aaco.org</a>	+961 1 863 168	+961 1 861297/8/9	+961 3 163 318
ACAC	Mr. Mohamed Rejeb	Air Navigation & Air Safety Expert	Arab Civil Aviation Commission (ACAC)	<a href="mailto:mohamed.rejeb@planet.tn">mohamed.rejeb@planet.tn</a> <a href="mailto:mohamed.rejeb65@gmail.com">mohamed.rejeb65@gmail.com</a>	-	+212 537 658 323/40	+212 639174697
AEROTHAI	Mr. Piyawut Tantimekabut (Toon)	Air Traffic Management Network Manager	Network Operations ATM Centre - Aeronautical Radio of Thailand Ltd	<a href="mailto:piyawut@aerothai.co.th">piyawut@aerothai.co.th</a> <a href="mailto:piyawut@gmail.com">piyawut@gmail.com</a>	+66 2 287 8375	+66 2 287 8616	+66 8 9697 5859
CANSO	Ms. Hanan Qabartai	Director Middle East Affairs	CANSO	<a href="mailto:hanan.qabartai@canso.org">hanan.qabartai@canso.org</a>	-	+962 6 500 7321	+962 796 768 012

STATE	NAME	TITLE	ADDRESS	E-MAIL	FAX	TELEPHONE	MOBILE
EUROCONTROL	Mr. Brian Flynn	Head Performance, Forecasts and Relations, Network Manager Directorate	EUROCONTROL	<a href="mailto:brian.flynn@eurocontrol.int">brian.flynn@eurocontrol.int</a>	-	+32 2729 9805	+32 4999 43721
IATA MENA	Mr. George Rhodes	Assistant Director Infrastructure, Middle East & North Africa	IATA MENA	<a href="mailto:rhodesg@iata.org">rhodesg@iata.org</a>	+962 (6) 593 9912	+96 26 580 4200 Ext 1215	+962 (79) 944 4252
IATA	Mr. Grant Wilson	Head, Air Navigation charges	IATA	<a href="mailto:wilsongr@iata.org">wilsongr@iata.org</a>	-	+1 514 874 0202	

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**APPENDIX B**

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

**I. TERMS OF REFERENCE**

- 1.1 Develop an ATFM Concept of Operations and a Framework which addresses ATFM implementation and ATFM operational issues in the ICAO MID Region.
- 1.2 Identify, research and recommend appropriate guidance regarding:
  - a) capacity assessment and adjustment mechanisms;
  - b) regular review for all aerodromes and ATC sectors where traffic demand is expected to reach capacity, or is resulting in traffic congestion;
  - c) mechanisms for ATFM data gathering, collation and sharing between States, Organizations and ICAO, which may include:
    - i. capacity assessments, including factors affecting capacity such as special use airspace status, runway closures and weather information;
    - ii. traffic demand information which may include flight schedules, flight plan data, repetitive flight plan data as well as associated surveillance updates of flight status; and
    - iii. ATFM Daily Plan.
  - d) compliance by airspace users with ATFM measures; and
  - e) any other guidance relevant to the Regional ATFM Framework.
- 1.3 Review existing and planned ATFM initiative in the Region, and make specific recommendations to ensure their alignment.
- 1.4 Ensure inter-regional ATFM harmonization with adjacent ICAO Regions.
- 1.5 Recommend appropriate inputs to the ASBU Modules relevant to ATFM such as NOPS, A-CDM, etc.
- 1.6 Report to the ATM SG.
- 1.7 Review periodically its Terms of Reference and propose amendments as necessary.
- 1.8 Coordinate as deemed necessary with the Runway and Ground Safety Working Group (RGS WG) and the Meteorology Sub-Group (MET SG) the issues of mutual interest.

**II. COMPOSITION**

- 2.1 The Sub-Group is composed of experts from:
  - a) MIDANPIRG Member States;
  - b) AACO, ACAC, AIROTHAI, CANSO. EUROCONTROL, FAA, IATA, and ICAO (Bangkok, Cairo, Paris Offices and HQ); and
  - c) other representatives from provider States and Industry may be invited on ad hoc basis, as observers, when required.

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APPENDIX C

***B0 – NOPS: Improved Flow Performance through Planning based on a Network-Wide view***

**Description and purpose:**

Air Traffic Flow Management (ATFM) is used to manage the flow of traffic in a way that minimizes delay and maximizes the use of the entire airspace. ATFM can regulate traffic flows involving departure slots, smooth flows and manage rates of entry into airspace along traffic axes, manage arrival time at waypoints or Flight Information Region (FIR)/sector boundaries and re-route traffic to avoid saturated areas. ATFM may also be used to address system disruptions including crisis caused by human or natural phenomena.

Experience clearly shows the benefits related to managing flows consistently and collaboratively over an area of a sufficient geographical size to take into account sufficiently well the network effects. The concept for ATFM and demand and capacity balancing (DCB) should be further exploited wherever possible. System improvements are also about better procedures in these domains, and creating instruments to allow collaboration among the different actors.

Guidance on the implementation of ATFM service are provided in the ICAO Doc 9971– Manual on Collaborative Air Traffic Flow Management

**Main performance impact:**

KPA- 01 – Access and Equity	KPA-02 – Capacity	KPA-04 – Efficiency	KPA-05 – Environment	KPA-10 – Safety
Y	Y	Y	Y	N/A

**Applicability consideration:**

Applicable to en-route and terminal airspace. Benefits can start locally. The larger the size of the concerned airspace the greater the benefits. Application will naturally span over a long period as traffic develops.

***B0 – NOPS: Improved Flow Performance through Planning based on a Network-Wide view***

Elements	Applicability	Performance Indicators/Supporting Metrics	Targets
ATFM Measures implemented in collaborative manner	All States	Indicator: % of States that have established a mechanism for the implementation of ATFM Measures based on collaborative decision  Supporting metric: number of States that have established a mechanism for the implementation of ATFM Measures based on collaborative decision	100% by Dec. 2018
ATFM Structure	All States	Indicator: % of States that have established an ATFM Structure  Supporting metric: number of States that have established an ATFM Structure	100 % by 2019

**Table B0-NOPS**

**EXPLANATION OF THE TABLE**

Column

- 1 Name of the State
- 2 Mechanism for the implementation of ATFM Measures based on collaborative decision.  
Reference to documentation related to the established mechanism for the implementation of
- 3 ATFM Measures based on collaborative decision  
Status of the establishment of ATFM Structure
- 4
- 5 Reference to documentation reflecting the establishment of the ATFM Structure
- 6 Remarks

<b>Applicability State</b>	<b>Mechanism for the implementation of ATFM Measures based on collaborative decision</b>	<b>Reference</b>	<b>ATFM Structure</b>	<b>Reference</b>	<b>Remarks</b>
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>
Bahrain					
Egypt					
Iran					
Iraq					
Jordan					
Lebanon					
Libya					
Kuwait					
Oman					
Qatar					
Saudi Arabia					
Sudan					
Syria					
UAE					
Yemen					
Total					
Percentage					