INTERNATIONAL CIVIL AVIATION ORGANIZATION

REPORT OF THE SECOND MEETING OF THE AERODROME SAFETY, PLANNING AND IMPLEMENTATION GROUP

(ASPIG/2)

(Teleconference 24-26 November 2020)

The views expressed in this Report should be taken as those of the MID Aerodrome Safety, Planning and Implementation Group (ASPIG/2) and not of the Organization. This Report will, however, be submitted to the RASG-MID and any formal action taken will be published in due course as a Supplement to the Reportt.

Approved by the Meeting
and published by authority of the Secretary General

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PART I - HISTORY OF THE MEETING

1. DURATION

1.1 The Second meeting of the Aerodrome Safety, Planning and Implementation Group (ASPIG/2) was successfully held virtually from 24 to 26 November 2020 from 11:00 to 01:00 UTC, using MS Teams.

2. OPENING

2.1 The meeting was opened by Mr. Mohamed Smaoui, Acting Regional Director, ICAO Middle East Office, who welcomed the participants to the ASPIG/2 meeting.

2.2 Mr. Smaoui highlighted the most important agenda items which will be addressed by the meeting.

2.3 Finally, Mr. Smaoui thanked all participants for their attendance wishing them successful and productive meeting.

3. ATTENDANCE

3.1 The meeting was attended by a total of sixty-eight (68) participants from fifteen (15) States (Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Qatar, Saudi Arabia, Sudan, Syria, UAE, USA and Yemen) and two (2) Organizations (ACI and IATA). The list of participants is at **Attachment A.**

4. OFFICERS AND SECRETARIAT

4.1 The meeting was chaired by Mr. Mohammed Yousif Mohamed, Acting Manager Aerodromes Section, General Civil Aviation Authority (GCAA), UAE.

4.2 Mr. Mohamed Iheb Hamdi, the Regional Officer for Aerodromes and Ground Aids (RO/AGA) was the Secretary of the meeting.

5. LANGUAGE

5.1 The discussions were conducted in English. Documentation was issued in English and available at : https://www.icao.int/MID/Pages/2020/ASPIG2.aspx .

6. AGENDA

6.1 The following Agenda was adopted:

Agenda Item 1: Adoption of the Provisional Agenda

Agenda Item 2: ASPIG Framework

- GASP/RASP/NASP Frameworks Overview
- GANP/RANP/NANP Frameworks Overview
- ASPIG Workflow within the RASG-MID & MIDANPIRG Structures

Agenda Item 3: Regional Performance Framework for Aerodrome Safety

- Follow-up on the RSC/7 Conclusions and Decisions on Aerodrome Safety
- Review of the Aerodromes SEIs included in the Draft MID Regional Aviation Safety Plan (MID-RASP) 2020-2022 Edition
- MID Region GRF Implementation Plan

Agenda Item 4: Regional Performance Framework for Aerodrome Capacity and Efficiency:

Coordination between RASG-MID and MIDANPIRG related to Airport Planning:

- Follow-up on the Airport Planning Conclusions and Decisions
- Review the Air Navigation (AN) Deficiencies
- Initial List of MID Air Navigation KPIs

Agenda Item 5: Future Work Programme

Agenda Item 6: Any other Business

7. CONCLUSIONS AND DECISIONS – DEFINITION

7.1 The MIDANPIRG records its actions in the form of Conclusions and Decisions with the following significance:

a) **Conclusions** deal with matters that, according to the Group's terms of reference, merit directly the attention of States, or on which further action will be initiated by the Secretary in accordance with established procedures; and

b) **Decisions** relate solely to matters dealing with the internal working arrangements of the Group and its Sub-Groups

8. LIST OF CONCLUSIONS AND DECISIONS

DRAFT CONCLUSION 2/1: SYSTEMATIC UPDATE OF STATES AGA FOCAL POINTS

DRAFT CONCLUSION 2/2: MID REGION GRF IMPLEMENTATION ACTION PLAN

DRAFT CONCLUSION 2/3: STATES NEEDS FOR THE BBB-AOP IMPLEMENTATION

DRAFT CONCLUSION 2/4: AIRPORT PLANNING SEMINAR

DRAFT CONCLUSION 2/5: A-SMGCS IMPLEMENTATION SEMINAR

DRAFT CONCLUSION 2/6: MID REGION ACDM IMPLEMENTATION PLAN

PART II: REPORT ON AGENDA ITEMS

REPORT ON AGENDA ITEM 1: ADOPTION OF THE PROVISIONAL AGENDA

Reference (PPT: AI 1 - WP1)

1.1 The meeting reviewed and adopted the revised Agenda as at Para.6 of the History of the Meeting.

REPORT ON AGENDA ITEM 2: ASPIG FRAMEWORK

(*Reference: PPT AI 2 - WP1)*

2.1 The subject was addressed in the aforementioned PPT presented by the Secretariat.

GASP/RASP/NASP Frameworks Overview

2.2 The meeting recalled that ICAO developed the Global Aviation Safety Plan (GASP) to ensure continuous safety improvement as the GASP provide strategic approach that measures progress in the area of safety. The meeting reiterated that the GASP specifically establishes targeted safety objectives and initiatives while ensuring the efficient and effective coordination of complementary safety activities between all stakeholders.

2.3 The meeting noted that a Regional Aviation Safety Plan (RASP) should be developed to continually reduce fatalities and the risk of fatalities through the development and implementation of a Regional Aviation Safety Strategy. The meeting recalled the 1st MID-RASP 2020-2022 Edition (Draft) is developed and ready to be presented to the RASG-MID/8 for endorsement.

2.4 The meeting indicated that the MID-RASP includes several Safety Enhancement Initiatives (SEIs) which comprise set of actions to address specific safety risks. The meeting encouraged States to include, as appropriate, the recommended SEIs, as proposed in the MID-RASP, in their individual National Aviation Safety Plans (NASPs).

GANP/RANP/NANP Frameworks Overview

2.5 The meeting recalled that one of the the main purpose of the Global Air Navigation Plan (GANP) developed by ICAO is to provide decision-makers with a strategic direction to drive the evolution of the global air navigation system, for 2040 and beyond, by outlining a vision, the associated performance ambitions and a conceptual roadmap.

2.6 With regards to the Regional Aviation Navigation Plan (RANP), the meeting indicated that a RANP should be developed to promote a harmonized and interoperable ANS system with the regional implementation strategy. The meeting recalled that, it is the responsibility of States to determine the appropriate pace and methodologies for the update of their own National Air Navigation Plans (NANPs) in accordance with the RANP and GANP.

ASPIG Workflow within the RASG-MID & MIDANPIRG Structures

2.7 The meeting was appraised of the ASPIG Workflow within the RASG-MID & MIDANPIRG Structures, as the Aerodrome Safety matters should be coordinated with the RASG-MID/RSC and the Aerodrome Capacity and Efficiency matters should be coordinated with the MIDANPIRG/MSG.

2.8 The meeting noted the ASPIG Terms of References (TORs) as at **Appendix 2A**, was endorsed by the RSC/7 meeting which agreed to the related following Decision:

RSC/7 DECISION 1/1: ENDORSEMENT OF ASPIG TORs

That, the Terms of References (TORs) of the ASPIG, are endorsed as at Appendix 3A.

2.9 The meeting highlighted that the significant update of the AGA Focal Points list can negatively impact the consistency of the ASPIG workflow momentum. The meeting agreed that it is

very important to establish a mechanism to ensure that consistency. Consequently, the meeting agreed that in the event of any change of their AGA Focal Point, States should systematically inform the secretariat by submitting an updated nomination form as available at **Appendix 2B**. Accordingly, the meeting agreed to the following Draft Conclusion to be endorsed by upcoming RASG MID/8 Meeting:

DRAFT CONCLUSION 2/1: SYSTEMATIC UPDATE OF STATES AGA FOCAL POINTS

That, in the event of any change of their AGA Focal Points, States are urged to systematically inform the ICAO MID secretariat by submitting the new AGA Focal Points contact details, using the nomination Form as at ***Appendix 2B****.*

REPORT ON AGENDA ITEM 3: REGIONAL PERFORMANCE FRAMEWORK FOR AERODROME SAFETY

Follow-up on the RSC/7 Conclusions and Decisions on Aerodrome Safety

(*Reference: PPT AI 3 - WP1)*

3.1 The subject was addressed in the aforementioned PPT presented by the Secretariat. The meeting reviewed the progress made on the implementation of RSC/7 Conclusions and Decisions. The actions taken by States and the Secretariat on the above-mentioned Conclusions and Decisions were reviewed and updated as at the **Appendix 3A**.

Review of the Aerodromes SEIs included in the Draft MID Regional Aviation Safety Plan (MID RASP) 2020-2022 Edition.

(*Reference: PPT AI 3 - WP2)*

3.2 The subject was addressed in the aforementioned PPT presented by the Secretariat. The meeting noted with appreciation the SIE championed by UAE and supported by Egypt on developing guidance material on Apron Management. In addition, the meeting noted with appreciation the SIE championed by KSA and supported by IATA on developing guidance material on Ground Handling Service Provider Certification Process.

3.3 The meeting reviewed and updated the Aerodromes SEIs included in the Draft MID Regional Aviation Safety Plan (MID RASP) 2020-2022 Edition (Draft). The actions taken by States and the Secretariat on the above-mentioned SEIs were reviewed and updated as at **Appendix 3B**.

MID Region GRF Implementation Plan

(*Reference: PPT AI 3 - WP3)*

3.4 The subject was addressed in the aforementioned PPT presented by the Secretariat. The meeting reviewed and validated the milestones defined on the MID Region GRF Implementation Plan Template/Milestones as at **Appendix 3C** in order to be presented to the MIDANPIRG/18 & RASG-MID/8 virtual meeting (plenary session) for endorsement. Accordingly, the meeting agreed that the following Draft Conclusion will be presented to the RASG-MID/8 Meeting for endorsement in order to replace and supersede the RSC Conclusions 7/8 on GRF Implementation and Deployment Aerodromes:

DRAFT CONCLUSION 2/2: MID REGION GRF IMPLEMENTATION ACTION PLAN

That, each States is urged to,

a) nominate a National GRF implementation Focal Point to coordinate the implementation activities at the national level and communicate his contact details to the ICAO MID secretariat by end of January 2021; and

*b) provide regular progress reports/updates on the subject to the ICAO MID Office using the MID Region GRF Implementation Plan Template/Milestones at **Appendix 3C**.*

REPORT ON AGENDA ITEM 4: REGIONAL PERFORMANCE FRAMEWORK FOR AERODROME CAPACITY AND EFFICIENCY

A. FOLLOW-UP ON THE AIRPORT PLANNING CONCLUSIONS AND DECISIONS

Reference (PPT: AI 4 - WP1)

4.1 The subject was addressed in the aforementioned PPT presented by the Secretariat. The meeting agreed that the following topics are going to be coordinated with the MIDANPIRG as part of the Airport Planning issues to be addressed in order to enhance airports' capacity and efficiency in the MID Region. Accordingly, all related Draft Conclusions and Decisions will be endorsed by the upcoming MIDANPIRG/MSG Meetings.

4.2 The meeting reviewed the Draft Conclusions related to Airport Panning to be endorsed by the upcoming MIDANPIG/18 Meeting. The actions taken by States and the Secretariat on the below Conclusions and Decisions were reviewed and updated as at the **Appendix 4A.**

Basic Building Blocks - Airport Operations Area (BBB-AOP)

4.3 The meeting recalled that, to set a baseline for the system envisioned in the GANP and to ensure a robust foundation for the global air navigation system, an effective process should be established to verify, pursuant to Article 37 of the Chicago Convention, that the essential air navigation services identified in the BBB framework are provided.

4.4 The meeting highlighted that this process should focus on verifying the implementation of the essential air navigation services outlined in the BBB framework considering the fact that the capability of the States to oversight these services is covered by the ICAO USOAP CMA approach.

4.5 The meeting noted that intra-collaboration within the MID Region is essential for the foundation of a robust air navigation system for each State. Therefore, the meeting encouraged States excelling in a particular Airport Design and Operations sub-areas to provide required assistance for other State(s), seeking for the support to implement the essential air navigation services that shall be provided for International Civil Aviation.

4.6 Due to the pandemic crisis, the meeting agreed to update the deadline of the following Draft Conclusion (previously agreed on during the ASPIG/1 Meeting, Ref: ASPIG/1 report):

DRAFT CONCLUSION 2/3: STATES NEEDS FOR THE BBB-AOP IMPLEMENTATION

That, in order to support the implementation of the BBB for Airport Operations and prioritize the necessary technical assistance in line with the MID Region NCLB Strategy, State are urged to:

a) provide the ICAO MID Office, by the by ~~end February 2020~~ 1st of March 2021, with their Needs for the BBB-AOP Implementation (using the Table provided in ASPIG/1 Report at Appendix 6A); and

b) are encouraged to volunteer to provide the necessary technical assistance.

Verification Template/Tool of core services to be implemented by Aerodromes

4.7 In correlation with the BBBs and as part of the verification process of core services to be implemented by Aerodromes, the meeting reviewed and agreed on a Template of the minimum reporting areas as available at **Appendix 4B** on the fundamental infrastructure and core services to be implemented by Aerodromes. The meeting agreed that this tool may be used, as deemed necessary, by States as a reference to monitor the implementations of those requirements. The meeting agreed that later Template will be presented to upcoming MIDANPIRG/RASG-MID meeting for endorsement and/or decision on its utility.

Airport Planning & Capacity

4.8 The meeting noted that the lack of strategic planning can lead to the development of objectives that fail to consider how airport projects contribute to the longer-term sustainable development strategy. The meeting highlighted that without a coherent strategy, Airports may not address basic functional requirements and intrinsic needs for the future.

4.9 The meeting recalled that architectural and infrastructure-related requirements for the optimum implementation of international civil aviation security measures shall be integrated into the design and construction of new facilities and alterations to existing facilities at an aerodrome.

4.10 Based on the above, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 2/4: AIRPORT PLANNING SEMINAR

That, ICAO organize an Airport Planning Seminar in 2022 and States are encouraged to participate actively in this event.

ASBU Operational Threads: SURF and ACDM

i - <u>Surface Operations (SURF)</u>

4.11 The meeting noted that, in order to improve safety and efficiency during ground operations by providing proper indications to pilots and vehicle drivers, the guiding and routing services should be delivered using visual aids and signals on a platform and all necessary information should be managed by the controller to provide them to the pilots and vehicle drivers in order to taxi and avoid potential incursion on the runway.

4.12 The meeting reiterated that the surveillance service of A-SMGCS provides airport traffic situational awareness through the position, identification and tracking of aircraft and vehicle suitably equipped on the aerodrome surface. The meeting highlighted that the Information should be presented on the controller and airport operator display independent of visibility conditions and controller line of sight.

4.13 In other hand, the meeting indicated that the detection by the ATCO of potentially unsafe situations with regard to runway operations can be provided with a short term conflicting alerting tool (A-SMGCS initial alerting service) that monitors movements on or near the runway and detects conflicts between an aircraft and another vehicle as well as runway incursion by intruders.

4.14 The meeting noted that States should ensure the proper implementation of the A-SMGCS on Aerodromes as part of the ASBU Block 0 SURF Module of the GANP 6th Edition. Accordingly, the meeting agreed that there is a need to raise awareness on Surface operation concept through capacity building initiative.

4.15 Based on the above, the meeting agreed to the following Draft Conclusion:

DRAFT CONCLUSION 2/5: A-SMGCS IMPLEMENTATION SEMINAR

That,

a) ICAO organize an A-SMGCS Implementation Seminar in 2021; and

b) States are encouraged to participate actively in this event.

ii - Airport Collaborative Decision Making (ACDM)

4.16 The meeting raised concern about the slow progress of implementation of the implementation of the ASBU Block 0 ACDM module of the GANP 6th Edition and recalled that no completed response was received from the MID States as a reply to the State Letter Ref.: AN 5/23-19/072, referring to the *MSG Conclusion 6/6 on Survey on ACDM Implementation*.

4.17 The meeting noted that there is a need to nominate States ACDM implementation focal points and establish a MID Region ACDM Implementation Plan as at **Appendix 4C** to effectively monitor the proper ACDM Implementation in the MID Region. Accordingly, the meeting agreed that the following Draft Conclusion to be presented to the MIDANPIRG/18 meeting for endorsement in order to replace supersede the above-mentioned MSG Conclusion 6/6:

DRAFT CONCLUSION 2/6: MID REGION ACDM IMPLEMENTATION PLAN

That, by 1st of March 2021, concerned States (according to applicability area included in the MID Air Navigation Strategy) urged to:

a) provide the ICAO MID Office with the contact details of their designated ACDM Implementation Focal Points; and

*b) populate the Questionnaire on ACDM Implementation Plan, using the template at **Appendix 4C.***

B. Review the Air Navigation (AN) Deficiencies

Reference (PPT: AI 4 – WP2)

4.18 The subject was addressed in the aforementioned PPT presented by the Secretariat. The meeting urged States to use the MID Air Navigation Deficiency Database (MANDD) available at: https://mandd.icao.int for the submission of requests for addition, update, and elimination of Air Navigation Deficiencies, including the submission of a specific Corrective Action Plan (CAP) for each deficiency.

4.19 The meeting reiterated that a deficiency would be eliminated only when a State submit a formal Letter to the ICAO MID Office containing the evidence(s) that mitigation measures have been implemented for the elimination of this deficiency.

C. Initial List of MID Air Navigation KPIs

Reference (PPT: AI 4 – WP3)

4.20 The subject was addressed in the aforementioned PPT presented by the Secretariat. The meeting recalled that MSG/7 Virtual meeting (1 - 3 September 2020) reviewed the draft of the revised MID Air Navigation Strategy which identified the ASBU Threads/Elements that might be classified as priority 1; along with associated proposed monitoring elements (applicability area, performance indicators/supporting metric, and timeline).

4.21 The meeting reiterated that, during the MID ASBU Webinar (13 – 15 October 2020), it has been agreed to establish an initial list of Key Performance Indicators, to be used for performance monitoring at National and Regional levels and subject for discussion/refinement by the MIDANPIRG Sub-Groups including the ASPIG.

4.22 In correlation with the SURF and ACDM Operational Threads, the meeting was appraised of the MID REGION ASBU Threads & Elements (Block 0 & 1): Monitoring Table for ACDM and SURF, Prioritization Table and latest updated Initial List of MID Air Navigation KPIs respectively available at **Appendices 4D, 4E and 4F** emanating from Sixth Meeting "ATM SG/6" (Virtual Meeting, 9 – 12 November 2020) in order to be monitored by ATM SG for 1 month of data sample per year (starting by June 2021).

4.23 The meeting agreed that States need more time to analyse the aforementioned Appendices in order to provide the ICAO MID Office with the required information 1-month prior the MIDANPIG/18 Meeting.

4.24 In correlation with that, the meeting encouraged States to participate actively in the ACAO/ICAO ASBU symposium planned to be virtually organized from 19 to 20 January 2021.

REPORT ON AGENDA ITEM 5: FUTURE WORK PROGRAMME

5.1 The meeting agreed that the ASPIG/3 virtual meeting tentatively scheduled to be held during the first quarter of 2021 (29-31 March 2021).

REPORT ON AGENDA ITEM 6: ANY OTHER BUSINESS

6.1 The meeting noted with appreciation that UAE is willing to share their experience regarding the implementation ICAO Manual on Ground Handling (Doc 10121) by providing the checklist which was developed specifically to address Ground Handlers' SMS implementation.

APPENDICES

APPENDIX 2A

AERODROME SAFETY, PLANNING AND IMPLEMENTATION GROUP (ASPIG)

TERMS OF REFERENCE

A) PURPOSE OF THE ASPIG:

1) As a Subsidiary body of the Regional Aviation Safety Group-Middle East (RASG-MID), the ASPIG is established to develop and implement Safety, Capacity and Efficiency Enhancement Initiatives related mainly to AGA issues including:

   - Aerodrome Planning and Design;
   - Heliports;
   - Aerodrome System Capacity Enhancement;
   - Aerodrome Certification;
   - Aerodrome Safety Management System;
   - Runway Safety;
   - Aerodrome Visual Aids for Navigation;
   - Aerodrome Operations and Services;
   - Ground Handling Operations
   - Aerodrome Emergency Response Planning;
   - Coordination between AGA and ANS: ATM/AIM/CNS;
   - AN Deficiencies in the field of Aerodrome Operations; and
   - MID Region priorities and implementation of Safety and Air Navigation objectives set on the MID Region Safety and Air Navigation Strategies, in line with the Global Aviation Safety Plan (GASP) and Global Air Navigation Plan (GANP).

2) In addition, the ASPIG should coordinate with other entities managing an extended scope including:
   - Air traffic management;
   - Aircraft operations; and
   - Aeronautical information management.

<u>In order to meet its Terms of Reference, the ASPIG shall</u>:

1) Monitor developments and continuously update the MID Region Implementation Plans in the field of Aerodrome Planning and Operations, including the implementation of ICAO provisions.

2) Follow-up and analyse achievements and progress in the implementation of certification of all aerodromes open for international aircraft operations, according to the Table AOP I-1 included in the Middle East Regional Air Navigation Plan (MID ANP), and promote safety management of aerodrome operations in the Region.

3) Ensure that the planning and implementation of Aerodrome design and operational requirements in the MID Region is consistent with ICAO SARPs and Global Air Navigation Plan and reflecting global requirements for adequate aerodromes and safety of aircraft operations with particular attention payed to the anticipated increase of traffic alleviating aerodrome congestion.

4) Ensure the continuous and coherent development of the Aerodrome Design and Operations parts of the MID ANP in a manner that is consistent with ICAO SARPs, the Global Air Navigation Plan (GANP) and the Global Aviation Safety Plan (GASP).

5) Facilitate the implementation of Aerodrome Design and Operations Services identified in the MID ANP Basic Building Block (BBB) and the Aviation System Block Upgrade (ASBU) Frameworks.

6) Monitor the MID Region operational safety and efficiency of Aerodromes Operations and identify the associated Air Navigation Deficiencies that impede the implementation or provision of efficient Aerodrome Design and Operation services, analyse, review and monitor steps and corrective action plans made by concerned States for resolution of such deficiencies.

ASPIG Deliverables:

1) Aerodrome Operations (AOP) parts of the MID ANP reviewed and, as necessary, amendment proposals prepared to update the MID ANP to reflect changes in the operational and global requirements.

2) Level of implementation of Aerodrome Design and Operations services monitored and, as necessary, facilitated to support the effective implementation of the BBB and ASBU priority modules

3) Air navigation deficiencies in the field of AOP (as listed in the MANDD database) reviewed and, as necessary, updated to reflect the current situation.

4) Draft Conclusions and Decisions formulated relating to matters in the field of Aerodrome design and Operations that come within the scope of the RASG/MIDANPIRG work programmes.

5) Progress report submitted to RASG and MIDANPIRG addressing the ASPIG deliverables respectively in coordination with the RSC and MSG.

B) COMPOSITION:

The ASPIG is composed of:

Permanent Members

The AGA focal points of the MID States (i.e.: Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Sudan, Syria, UAE and Yemen), officially assigned and communicated to the ICAO Middle East Regional Office by MID States, are the permanent members of the ASPIG.

Observers

The following Partners are the permanent Observers to the ASPIG:

• AACO	Arab Air Carrier Organization
• ACAO	Arab Civil Aviation Organization
• ACI	Airports Council International
• AIRBUS	Airbus Aircraft Manufacturer
• BOEING	Boeing Commercial Airplane Company
• CANSO	Civil Air Navigation Services Organization
• EUROCONTROL	European Organisation for the Safety of Air Navigation
• COSCAP-GS	Cooperative Development of Operational Safety and Continuing Airworthiness Programme-Gulf States
• EASA	European Aviation Safety Agency
• Embraer	Embraer Aviation International
• FAA	United States Federal Aviation Administration
• FSF	Flight Safety Foundation
• IACA	International Air Carrier Association
• IATA	International Air Transport Association
• IBAC/MEBAA	International Business Aviation Council/ Middle East Business Aviation Association
• IAOPA	International Council of Aircraft Owner and Pilot Associations
• ICCAIA	International Coordinating Council of Aerospace Industries Associations
• IFALPA	International Federation of Airline Pilots Association
• IFATCA	International Federation of Air Traffic Controllers Association
• MEASR-TLST	Middle East Aviation Safety Roadmap - Top Level Safety
•	Team
• WFP (UN)	World Food Programme (United Nations)

International Organizations, Airport Operators, Aircraft Operators, Maintenance and Repair Organizations, Regional Organizations, Training organizations, Aircraft manufactures, and Air Navigation Service Providers and any other allied organizations/representatives can be invited by ICAO/States to attend the ASPIG meetings in the capacity of observers.

C) WORKING ARRANGEMENTS:

Roles and Responsibilities:

- **Member State**s: provide technical expertise and collaborate in the development and implementation of the ASPIG deliverables.

- **Partners**: provide technical expertise and collaborate in the development and implementation of the ASPIG deliverables.

- **ICAO:** acts as Secretariat and provides necessary support to the ASPIG.

Chairmanship:

The Chairperson will:

1) call for ASPIG meetings;
2) chair the ASPIG meetings;
3) keep focus on high priority items;
4) ensure agendas meet objectives to improve safety;
5) provide leadership for ongoing projects and accomplishments;
6) promote consensus among the group members;
7) coordinate ASPIG activities closely with the Secretariat; and
8) promote ASPIG and lobby for contributors.

In order to ensure the necessary continuity in the work of the ASPIG the Chairperson, the Vice-Chairperson are held by each Member State (i.e.: Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Oman, Qatar, Saudi Arabia, Sudan, Syria, UAE and Yemen) for a period of three (03) years. The Chairperson chairs the ASPIG meeting in collaboration with the Secretariat.

Convening of meetings:

The ASPIG Meeting will be convened every 12 to 18 months. At each of its meetings the Group should endeavour to agree on the dates and venue of its next meeting.

If a State offers to host a meeting, it shall coordinate with the Secretary of the Group as early as possible, but in any case at least six (06) months in advance and, shall be responsible for providing a venue, services and all costs of travel, accommodation and subsistence allowance for Secretariat attendees.

A convening letter for a meeting shall be issued by the Secretary of the Group, normally 90 days prior to the meeting. The convening letter should include the agenda, together with explanatory notes prepared by the Secretary in order to assist participants in preparing for the meeting.

APPENDIX 2B

State AGA Focal Points

Nomination Form

LIST OF AGA FOCAL POINT(S)	
STATE: …….	
Main AGA Focal Point	
FULL NAME	**TITLE & ADDRESS**
	…… …… …… Tel : Fax : Mobile: Email :
Alternate AGA Focal Point(s)	
FULL NAME	**TITLE & ADDRESS**
	…… …… …… Tel : Fax : Mobile: Email :

After completing, please send to the ICAO MID Office at the following e-mail address: (icaomid@icao.int) with a copy to (mhamdi@icao.int).

APPENDIX 3A

FOLLOW-UP ACTION PLAN ON RSC/7 CONCLUSIONS AND DECISIONS

NO.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C 7/5	**SURVEY ON BASIC REGULATORY FRAMEWORK FOR AERODROME CERTIFICATION** That, by May 2020, a Survey on Basic Regulatory Framework for Aerodrome Certification in the MID Region be carried out using the Template at **Appendix 3E.**	Assurance of the establishment of the necessary Regulatory Framework for Aerodromes Certification by States.	Survey on Basic Regulatory Framework for Aerodrome Certification	States	May 2020 Revised date: **(Due to the Pandemic Crisis the deadline will be extended to the end of January 2021)**	**Ongoing** SL Ref: ME 4/1.8 & AN 5/3-20/016 dated 14 January 2020 (Replies : Bahrain, Egypt, Iran, Jordan, Kuwait, Qatar, S. Arabia, Sudan, Syria & UAE)
C 7/6	**AERODROME CERTIFICATION IMPLEMENTATION PROGRESS** That, States provide the ICAO MID Office, by May 2020 with: **a)** the status of implementation of the Basic Regulatory Framework for aerodrome certification using the Table 1 of **Appendix 3E**; and b) their progress/plan for Aerodrome Certification Implementation using the Template at **Appendix 3F**.	Development of a detailed Aerodrome Certification Implementation Progress/Plan	Progress/Plans on the Aerodrome Certification Implementation	States	May 2020 Revised date: **(Due to the Pandemic Crisis the deadline will be extended to the end of January**	**Ongoing** SL ME 4/1.8 & AN 5/3-20/017 dated 14 January 2020. *(Replies: Bahrain, Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, S. Arabia, Sudan, Syria & UAE)*

NO.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
					2021)	
C 7/7	**REGIONAL SEMINAR ON GLOBAL REPORTING FORMAT (GRF)** That, a) a Regional Seminar on Global Reporting Format (GRF) be organized by the ICAO MID Office during the first quarter of 2020; and b) States (CAAs, Airports Operators, ANSPs, Airlines, etc.) and International Organizations are invited to actively participate in this Seminar.	Foster the Implementation of the runway condition assessment new methodology: The Global Reporting Format (GRF) in the MID Region	GRF Regional Seminar	ICAO	Q1 of 2020 (effective date 27 Oct 2020) **(Due to the Pandemic)**	**Completed** SL ME 4/1.8 & AN 5/24-20/015 dated 14 January 2020. **Replaced by a Regional Webinar has been conducted on 27 Oct 20 (Due to the Pandemic)**
C 7/8	**GLOBAL REPORTING FORMAT (GRF) IMPLEMENTATION AND DEPLOYMENT AT AERODROMES** That, States: a) be requested to report on the implementation of the GRF to the ICAO MID Regional Office by July 2020; and b) be encouraged to organize at National Level Seminars, Workshops, trainings, etc. related to GRF; and c) ensure full deployment of GRF at their airports.	Effective implementation of the GRF methodology and it deployment at the MID Region Airports	Status of the GRF implementation and deployment at Airports	States	July 2020	**Ongoing** **(A DRAFT CONCLUSION 2/2: MID REGION GRF IMPLEMENTATION ACTION PLAN including a MID Region GRF Implementation Action Plan Template will be proposed to replace and supersede C 7/8)**

NO.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C 7/9	**RUNWAY SAFETY TEAM IMPLEMENTATION PLAN** That, States be urged to provide the ICAO MID Office by **May 2020** with a Runway Safety Team Implementation Progress/Plan, using the Template at **Appendix 3G**.	Development of a detailed RSTs Implementation Progress/Plan including the GRF Deployment at Airports	Progress/Plans on RSTs Implementation including the GRF Deployment at Airports	States	May 2020 Revised date: **(Due to the Pandemic Crisis the deadline will be extended to the End of January 2021)**	**Ongoing** SL Ref: ME 4/1.8 & AN 5/3-20/018 dated 14 January 2020 (*Replies : Egypt, Iran, Iraq, Jordan, Kuwait, Lebanon, Oman, Qatar, S. Arabia, Sudan, Syria & UAE)*
D 7/16	**TERMS OF REFERENCE (TOR) OF THE ASPIG** That, the Terms of Reference (ToR) of the Aerodromes Safety Planning and Implementation Group (ASPIG) are endorsed as at **Appendix 5F** .	TORs	RSC/7	ICAO	March. 2020	**Completed**

APPENDIX 3B

Appendix D: Safety Actions- Consolidated list of SEIs with their respective Actions for follow up_Draft

SEI Code	SEI name	Actions	Owner(s)	Status/Progress	Completion date
Organizational Challenges and Emerging Risks					
Goal 2: Strengthen States' Safety Oversight Capabilities					
G2-SEI-01:	Strengthening of States' Safety Oversight Capabilities	**A1**- Conduct Capacity Building Activities (Workshops, Training, Webinars, GSI Courses) to promote effective implementation of SARPs, with a focus on the following technical areas: ANS, AGA, and OPS.	ICAO		2022
		A2- Conduct technical assistance and NCLB missions to States	ICAO		2022
		A3- Develop and implement a specific NCLB plan of actions	ICAO and concerned States		2022
G2-SEI-02:	Improve Regional Cooperation for the Provision of Accident & Incident Investigation	**A1**- Development and signature of the MOU among MENA ARCM States	ICAO, ACAO, and States (TBD)		2022
		A2- Conduct AIG Capacity Building Activities	ICAO and ACAO		2022
G2-SEI-03:	Sharing of Safety Recommendations related to Accidents and Serious Incidents	**A1**- Development of questionnaire to be circulated to MENA States on sharing safety recommendations on dedicated platform	ICAO, ACAO, and States (KSA & UAE)		2021
G2-SEI-04:	Enhance State Oversight on Dangerous Goods	**A1**- Dangerous Goods (DG) workshop for States 'inspectors	ICAO and ACAO. Supported by FAA		2021

		A2- Develop guidance material to support States' inspectors for the conduct of the oversight for DG	States (TBD)		2022
		A3- Develop guidance material and providing webinar on Lithium batteries	IATA		2022
G2-SEI-05:	Human factors and Competence of Personnel	**A1-** Advisory Circular: Crew Resource Management Training Programme (CRM). **(Action addressed under G1-SEI-04:CFIT)**	IATA		2022
		A2- Organize Crew Resource Management Training workshop to share experience and best practices on CRM practical implementation	ICAO and ACAO, Supported by IATA and KSA. FAA to be conformed		2022
		A3- Conduct workshop/webinar on fatigue risk management and mental Health best practices	IATA and ACAO. Supported by CANSO, IFALPA, and Jordan,		2022
		A4- Organize Team Resource Management Training workshop to share experience and best practices on TRM practical implementation	ICAO, ACAO, IATA, CANSO, FAA, and States (TBD		2022
G2-SEI-06:	Impact of security on safety	**A1-** Circulate ICAO Doc 10084 Risk Assessment Manual for Civil Aircraft Operations Over or Near Conflict Zones	ICAO		2021
		A2- Organize seminar/Symposium to exchange experiences and good practices on assessing the risks and sharing of information related to the overflying of conflict zones in coordination with RASFG-MID and MIDANPIRG	ICAO and ACAO. Supported by IATA, CANSO, States (TBD)		2022

		A3- Encourage States to issue NOTAMs to share threats information emanated from conflict zones within their airspaces	ICAO		2021
Goal 3: Ensure the Appropriate Infrastructure is available to Support Safe Operations					
G3-SEI-01:	Certification of International Aerodromes	**A1**- Support States on the implementation of the ICAO Annex 14 requirements to achieve compliance with regards to Aerodrome Design and Operations, through Workshops/Training	ICAO and ACI. Supported ACAO	Training course conducted on implementing Annex 14, during period of 8-12 Nov2020	2022
		A2- Enhance capacity building for States CAAs and Airport operators related to aerodromes certification through Workshops/Training	ICAO and ACI		2022
		A3- Develop guidance material on Apron Management	States (UAE, Egypt)		2021
		A4 – Deployment if the iPack on Aerodrome Re-Start	ICAO		2021
G3-SEI-02:	Establish Runway Safety Team (RST) at International Aerodromes	**A1**- Conduct of assistance missions by the Runway Safety Go-Team (RST)	ICAO Supported RSP (Runway Safety Programme Partners)		2022
		A2: Support States to implement the Global Reporting Format Methodology through workshops/trainings**: (Action addressed under G1-SEI-02: Runway Excursion)**	ICAO and ACI. Supported CANSO, IATA, FAA and Aircraft Manufactures	Webinar has been conducted on 27 October 2020	2022

Goal 4: Expand the Use of Industry Programmes					
G4-SEI-01:	Promote the Use of industry Programmes	**A1**- Encourage IATA's IOSA and ISAGO registrations through safety promotion	IATA		2022
		A2- Encourage the implementation of the ACI Airport Excellence (APEX) in Safety Programme	ICAO and ACI		2022
Goal 5: Implementation of Effective SSPs and SMSs					
G5-SEI-01:	Implement an effective Safety Management	**A1**- Conduct SSP training course in Cairo	ICAO		2021
		A2- Conduct SSP Workshop in coordination with ACAO in Casablanca, Morocco	ICAO and ACAO		2021
		A3- Provide SSP/SMS workshops for MID States personnel	ICAO. Supported by IATA, CANSO, ACI, and States (UAE)	SSP workshop conducted in Kuwait in March 20	2022
		A4- Develop guidance material on occurrence reporting for the CAA personnel on establishing an effective operation of the mandatory and voluntary reporting systems	States (UAE)		2022

		A5- Support and guide States in the development of NASPs through workshops and sharing of best practices	ICAO and States (UAE)		2022
		A6- Development of guidance for the processes and procedures for oversight of SMS	States (UAE)		2022
		A7- Deployment of the Aviation Safety Risk Management iPack	ICAO		2020
		A-8- Conduct assistance missions by SMIT to support States with SSP implementation	SMIT. Egypt, Saudi Arabia, Qatar and UAE. Supported by CANSO and IATA		2022
Goal 6: Increase Collaboration at the Regional Level to Enhance Safety					
	To be developed in the future				
Regional Operational Safety Risks					
Goal 1: Achieve a continuous reduction in Operational Risks					
G1-SEI-01:	Aircraft upset in flight (LOC-I)	**A1-** Guidance material on flight crew proficiency	IATA and Aircraft manufacturers		2022
		A2- Advisory Circular: Mode Awareness and Energy State Management Aspects of Flight Deck Automation	IATA and Aircraft manufacturers		2022
		A3- Conduct Upset Recovery Workshop	ACAO, IATA, and ICAO. Supported by FAA. Host State to be confirmed	ICAO, KSA, and FAA UPRT Feb 20	2022
		A4- Develop guidance material on Ground Handling Service Provider Certification Process	States (KSA, IATA)		2021

G1-SEI-02:	Runway Safety- Runway Excursion	**A1-** Support States to implement the Global Reporting Format (GRF) Methodology through Webinar/ Workshops/Training	ICAO and ACI. Supported by CANSO, IATA, FAA and Aircraft Manufactures		2021
		A2: MID Region Action Plan/Milestones on the Global Reporting Format (GRF) Implementation	ICAO		2021
		A3- Guidance material on un-Stabilized Approach	IATA. Supported by CANSO and IFALPA		2022
G1-SEI-03:	Runway Safety- Runway Incursion	**A1-** Support States to implement aerodrome inspection through workshops/trainings/Webinar!	ICAO Supported by FAA, UAE		2022
G1-SEI-4:	Controlled Flight into Terrain (CFIT)	**A1-** Advisory Circular: Guidance for Operators to Ensure Effectiveness of GPWS Equipment	IATA and Aircraft manufacturers		2022
		A2- Advisory Circular: Instrument Approach Procedures Using Continuous Descent Final Approach Techniques	IATA and Aircraft manufacturers		2022
		A3- Circulate ICAO Guidance Doc 1000 on Flight Data Analysis Programme (FDAP) to support States providing oversight to air operators	ICAO		2022
		A4- Advisory Circular: Crew Resource Management Training Programme (CRM)	IATA, Aircraft manufacturers		2022
G1-SEI-05A:	Loss of separation between civil and military aircraft"	**A1-** States and regional organizations to share occurrences and/or safety analysis/information related to Near Mid Air Collisions (NMACs) including to the	ICAO. Supported by IATA, CANSO, and States		2022

		"Loss of separation between civil and military aircraft" and ATM-SG to perform a technical analysis of the reported occurrences and and/or safety analysis/information and then come out with recommendations. The technical analysis of the reported occurrences and recommendations be shared with ASRG.			
		A2: Guidance/raising awareness/ coordination related to the civil and military cooperation in particular over high seas	ACAO and ICAO. Supported by States		
G1-SEI-05B:	Ensure the Safe Operations of UAS (drones)	**A1**- Circulate ICAO developed guidance and advisory circulars: Regulatory framework for the operation of drones to support states' CAA personnel in the implementation and oversight of UAS operations	ICAO		2021
		A2- Organize symposium on Drones related subjects	ICAO, ACAO. Supported FAA		2021
		A3- States and regional organizations to share occurrences and/or safety analysis/information involving drones to ASRG to perform a technical analysis of the reported occurrences and come out with recommendations.	ICAO, IATA, ACI, CANSO, and States (TBD)		2022

APPENDIX 3C

NEW ICAO METHODOLOGY FOR ASSESSING AND REPORTING RUNWAY SURFACE CONDITIONS (GRF)

MID REGION GRF IMPLEMENTATION ACTION PLAN TEMPLATE

(to be tailored and detailed by each State)

STATE NAME _ _ _ _ _ _ _ _ _ _

Milestone ID	ACTION	ENTITY RESPONSIBLE	TARGET DATE[1]	EFFECTIVE DATE	REMARKS
GRF 1	Review ICAO provisions and guidance and other Organisations guidance (see below)	CAA	**31/01/2021**		
GRF 2	Designate a focal point to coordinate implementation activities at the national level	CAA	**31/01/2021**		
GRF 3	Identify concerned focal points in each entity (CAA, Airport, ANSP, Aircraft operators – include BA, GA and military as applicable)	CAA, Airports, ANSP, Aircraft operators	**31/01/2021**		
GRF 4	Establish an Implementation Coordination Team including staff from the identified stakeholder entities (as appropriate)	CAA	**15/01/2021**		
GRF 5	Coordinate and support the conduct the initial training for the CAA, Airports, ANSP and Aircraft Operators' personnel (e.g. ICAO/ACI/IATA online courses, national awareness workshop, etc.)	CAA	**15/02/2021**		
GRF 6	Identify regulations, standards, procedures and guidance material to be developed/amended	National Focal Point and the Implementation Coordination Team	**15/02/2021**		
GRF 7	Develop a detailed national implementation plan and safety risk assessment. Each entity should also establish its specific implementation plan and safety risk assessment.	CAA, Airports, ANSP, Aircraft operators	**28/02/2021**		

[1] Target dates are indicative only and should be replaced by realistic dates determined by individual State

Milestone ID	ACTION	ENTITY RESPONSIBLE	TARGET DATE[1]	EFFECTIVE DATE	REMARKS
GRF 8	Identify the necessary means and resources for the implementation (human, financial and material resources)	National Focal Point and the Implementation Coordination Team	**28/02/2021**		
GRF 9	Coordinate with Airport Runway Safety Teams	Airports	**28/02/2021**		
GRF 10	Develop and promulgate regulations and standards	CAA	**30/03/2021**		
GRF 11	Develop procedures and guidance material (translate if required)	National Focal Point and the Implementation Coordination Team	**15/04/2021**		
GRF 12	Provide the necessary means and resources for the implementation (human, financial and material resources)	CAA, Airports, ANSP, Aircraft operators	**31/05/2021**		
GRF 13	Conduct On-the-Job Training (OJT) on the implementation	CAA, Airports, ANSP, Aircraft operators	**30/06/2021**		
GRF 14	Perform tests/trials prior to the effective implementation	All	**31/07/2021**		
GRF 15	Applicability date for the new methodology for assessing and reporting runway surface conditions	All	**4/11/2021**		

Notes: ICAO Runway Safety Go-Team Assistance Missions are available to support States and Airports. ACI APEX Safety Reviews are also available to support Airports.

References:

- ICAO GRF web site https://www.icao.int/safety/Pages/GRF.aspx
- ICAO MID GRF Regional Webinar: https://www.icao.int/Meetings/webinar-series/Pages/Global-Reporting-Format-Methodology-Webinar.aspx

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APPENDIX 4A

FOLLOW-UP ACTION PLAN ON ASPIG/1 DRAFT CONCLUSIONS & DECISIONS

CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
DRAFT CONCLUSION 1/6: STATES NEEDS FOR THE BBB-AOP IMPLEMENTATION *That, in order to support the implementation of the BBB for Airport Operations and prioritize the necessary technical assistance in line with the MID Region NCLB Strategy, States:* *a) provide the ICAO MID Office, ~~by end February 2020~~ 1st of March 2021 with their Needs for the BBB-AOP Implementation using the Table at Appendix 6A.; and* b) *are encouraged to volunteer to provide the necessary technical assistance.*	Monitor the MID States BBB-AOP Implementation needs	Completed Questionnaire on MID States *BBB-AOP Implementation needs*	States	Revised date: 1st of March 2021	**Ongoing** This Conclusion will be replaced by the Draft Conclusion 2/3: States Needs For The BBB-AOP Implementation (Ref: ASPIG/2 Report) SL ME 4/1.8 -20/019 dated 14 January 2020) (Replies: Bahrain, Egypt, Jordan, Kuwait, Qatar and UAE)
DRAFT CONCLUSION 1/8: AIRPORT PLANNING SEMINAR *That, ICAO organize an Airport Planning Seminar in ~~2021~~ 2022 and States are encouraged to participate actively in this event.*	Prepare States to the upcoming requirements on Airport Master plan	*Airport Planning Seminar*	ICAO	Revised date: 2022	**Actioned** This conclusion will be replaced by the Daft Conclusion 2/4: Airport Planning Seminar (Ref: ASPIG/2 Report)
DRAFT CONCLUSION 1/7: A-SMGCS IMPLEMENTATION SEMINAR *That,* *a) ICAO organize an A-SMGCS Implementation Seminar/Webinar in ~~2020~~ 2021; and* b) *States are encouraged to participate actively in this event.*	Ensure proper Implementation of the A-SMGCS on Aerodromes as part of the ASBU Block 0 SURF module of the GANP 6th Edition	*A-SMGCS Implementation Seminar/Webinar*	ICAO	Revised date: 2021	**Actioned** This conclusion will be replaced by the Draft Conclusion 2/5: A-SMGCS Implementation Seminar (Ref: ASPIG2/ Report)

APPENDIX 4B

AOP MINIMUM REPORTING AREAS

AERODROMES OPERATIONS (AOP)								
	ICAO Reference Document	**Description**	**Date first reported**	**Remarks/ Impact of non-implementation**	**Action by States**	**Corrective Action Plan planned by the State (including timelines/target dates)**	**Identified implementation impediment and action thereon**	**Status**
AERODROME DESIGN								
1.	Annex 14 - Vol 1, Chapter 1 PANS-Aerodromes, Part 1, 2	**Aerodrome Master Plan**		The lack of airports master plans affect their short to medium term capacity enhancement projects; restricting their ability to fulfil capacity needs.				
2.	Annex 14 - Vol 1, Chapter 2, 3 PANS-Aerodromes, Part 1, 2 MID ANP, Vol II - AOP	**Runways**		In view of the vital function of runways in providing for safe and efficient aircraft landings and take-offs, it is imperative that their design take into account the operational and physical characteristics of the aeroplanes expected to use the runway, as well as engineering considerations.				
3.	Annex 14 - Vol 1, Chapter 2, 3 PANS-Aerodromes, Part 1, 2	**Taxiways**		A properly designed taxiway system ensures a smooth, continuous flow of aircraft ground traffic, operating at the highest level of safety and efficiency and contributes to optimum aerodrome utilization				

AERODROMES OPERATIONS (AOP)								
	ICAO Reference Document	**Description**	**Date first reported**	**Remarks/ Impact of non-implementation**	**Action by States**	**Corrective Action Plan planned by the State (including timelines/target dates)**	**Identified implementation impediment and action thereon**	**Status**
4.	Annex 14 - Vol 1, Chapter 2, 3 PANS-Aerodromes, Part 1, 2	**Aprons**		Apron design should take into account safety procedures for aircraft manoeuvring and contribute to a high degree of efficiency for aircraft movements and dispensing apron services.				
5.	Annex 14 - Vol 1, Chapter 2, 5, 6, 7 PANS-Aerodromes, Part 1 MID ANP, Vol II - AOP	**Visual Aids**		Visual aids contribute to the safety and operational efficiency of aircraft and vehicle movements. Design and Good maintenance of these aids is essential to ensure that the cues that they provide are available in all circumstances.				
6.	Annex 10 - Vol 1, Chapter 3	**Radio Navigation Aids**		Radio Navigation Aids contribute to the safety and operational efficiency of aircrafts. Good maintenance of these aids is essential to ensure that the cues that they provide are available in all				

AERODROMES OPERATIONS (AOP)								
	ICAO Reference Document	**Description**	**Date first reported**	**Remarks/ Impact of non-implementation**	**Action by States**	**Corrective Action Plan planned by the State (including timelines/target dates)**	**Identified implementation impediment and action thereon**	**Status**
7.	Annex 14 - Vol 1, Chapter 8 PANS-Aerodromes, Part 1 MID ANP, Vol II - AOP	**Electrical Systems**		Electrical systems contribute to the safety and operational efficiency of aircraft and vehicle movements. Their design and good maintenance of these aids is essential to ensure that the cues that they provide are available in all circumstances				
8.	Annex 14 - Vol 1, Chapter 1	**Terminals**		Architectural and infrastructure-related requirements for the optimum implementation of international civil aviation security measures shall be integrated into the design and construction of new facilities and alterations to existing facilities at an aerodrome.				
9.	Annex 14 - Vol 1, Chapter 9 PANS-Aerodromes, Part 1	**Fencing**		Lack of fences on an aerodrome could lead to the entrance to the movement area of animals large enough to be a hazard to aircraft.				

AERODROMES OPERATIONS (AOP)								
	ICAO Reference Document	**Description**	**Date first reported**	**Remarks/ Impact of non-implementation**	**Action by States**	**Corrective Action Plan planned by the State (including timelines/target dates)**	**Identified implementation impediment and action thereon**	**Status**
AERODROME OPERATIONS								
10.	Annex 14 - Vol 1, Chapter 2 PANS-Aerodromes, Part 1, 2 MID ANP, Vol II - AOP	**Aerodrome Data**		Determination and reporting of aerodrome-related aeronautical data shall be in accordance with the accuracy and integrity classification required to meet the needs of the end-users of aeronautical data				
11.	Annex 14 - Vol 1, Chapter 9 PANS-Aerodromes, Part 1	**Emergency planning**		Lack of adequately effective emergency planning can seriously affect the effects of an emergency, particularly in respect of saving lives and maintaining aircraft operations.				
12.	Annex 14 - Vol 1, Chapter 2, 9 PANS-Aerodromes, Part 1 MID ANP, Vol II – AOP	**Rescue and Firefighting**		Lack of adequately effective rescue and firefighting service can affect capabilities to save lives in the event of an aircraft accident or incident occurring at, or in the immediate vicinity				

AERODROMES OPERATIONS (AOP)								
	ICAO Reference Document	**Description**	**Date first reported**	**Remarks/ Impact of non-implementation**	**Action by States**	**Corrective Action Plan planned by the State (including timelines/target dates)**	**Identified implementation impediment and action thereon**	**Status**
13.	Annex 14 - Vol 1, Chapter 2, 9 PANS-Aerodromes, Part 1	**Disable Aircraft Removal**		Disabled aircraft can interfere with normal activity of an aerodrome. In addition, runway and taxiway closures can substantially reduce the number of arrivals and departures and restrict movement around the aerodrome, resulting in the reduction of the aerodrome capacity.				
14.	Annex 14 - Vol 1, Chapter 9 PANS-Aerodromes, Part 1	**Wildlife Strike Hazard Reduction**		Lack of measures (successful bird/wildlife control programme) on an airport and in its vicinity to minimize the likelihood of collisions between wildlife and aircraft will increase the risk to aircraft operations				
15.	Annex 14 - Vol 1, Chapter 2, 9 PANS-Aerodromes, Part 1	**Operational Area Management**		Lack of appropriate airport operational services will affect the safety and efficiency of aircrafts operations.				

AERODROMES OPERATIONS (AOP)								
	ICAO Reference Document	**Description**	**Date first reported**	**Remarks/ Impact of non-implementation**	**Action by States**	**Corrective Action Plan planned by the State (including timelines/target dates)**	**Identified implementation impediment and action thereon**	**Status**
16.	Annex 14 - Vol 1, Chapter 9	**Ground Servicing of Aircraft**		Lack of appropriate Ground Servicing of Aircraft will affect the safety and efficiency of aircrafts operations.				
17.	Annex 14 - Vol 1, Chapter 4, 6 PANS-Aerodromes, Part 1	**Control of obstacles**		The airspace around aerodromes shall be maintained free from obstacles so as to permit the intended aeroplane operations at the aerodromes to be conducted safely and to prevent the aerodromes from becoming unusable by the growth of obstacles around the aerodromes				
18.	Annex 14 - Vol 1, Chapter 10 PANS-Aerodromes, Part 1	**Aerodrome Maintenance**		A maintenance programme, shall be established at an aerodrome to maintain facilities in a condition which does not impair the safety, regularity or efficiency of air navigation				

AERODROMES OPERATIONS (AOP)								
	ICAO Reference Document	**Description**	**Date first reported**	**Remarks/ Impact of non-implementation**	**Action by States**	**Corrective Action Plan planned by the State (including timelines/target dates)**	**Identified implementation impediment and action thereon**	**Status**
19.	Annex 14 _ Vol1, Chapter 2 PANS-Aerodromes, Part 2	**Global Reporting Format**		Assessing and reporting the condition of the movement area and related facilities is necessary in order to provide the flight crew with the information needed for safe operation of the aeroplane. The runway condition report (RCR) is used for reporting assessed information.				
20.	Annex 14 - Vol 1, Chapter 1 PANS-Aerodromes, Part 1	**Safety Management**		Implementation of SMS seeks to proactively mitigate safety risks before they result in aviation accidents/ incidents and improve operational efficiencies.				
AERODROME CERTIFICATION								
21.	Annex 14 - Vol 1, Chapter 1 to 10 PANS-Aerodromes, Part 1, 2	**Aerodrome Certification**		Lack of certification of an aerodrome means that aerodrome does not meet the specifications regarding the facility and its operation				

AERODROMES OPERATIONS (AOP)								
	ICAO Reference Document	**Description**	**Date first reported**	**Remarks/ Impact of non-implementation**	**Action by States**	**Corrective Action Plan planned by the State (including timelines/target dates)**	**Identified implementation impediment and action thereon**	**Status**
22.	PANS-Aerodromes, Part 1	**Safety assessments and Aerodrome Compatibility**		The compatibility between aeroplane operations and aerodrome infrastructure and operations when an aerodrome accommodates an aeroplane that exceeds the certificated characteristics of the aerodrome should be assessed				
ASBU MODULES								
23.	[MIDANPIRG Conc. ……] MID eANP	**ACDM-B0/1**		To generate common situational awareness, which will foster improved decision making within aerodromes, by sharing relevant surface operations data among the local stakeholders involved in aerodrome operations.				
24.	[MIDANPIRG Conc. ……] MID eANP	**SURF-B0/1**		To improve safety and efficiency during ground operations by providing proper indications to pilots and vehicle drivers				

AERODROMES OPERATIONS (AOP)								
	ICAO Reference Document	**Description**	**Date first reported**	**Remarks/ Impact of non-implementation**	**Action by States**	**Corrective Action Plan planned by the State (including timelines/target dates)**	**Identified implementation impediment and action thereon**	**Status**
25.	[MIDANPIRG Conc. ……] MID eANP	**SURF-B0/2**		To better maintain ATCO awareness of ground operations.				
26.	[MIDANPIRG Conc. ……] MID eANP	**SURF-B0/3**		Detection by the ATCO of potentially unsafe situations with regard to runway operations.				

APPENDIX 4C

Survey Questionnaire

Airport Collaborative Decision Making

(A-CDM) Implementation Plan

Name of the State/Administration: _ _ _ _ _ _ _ _ _ _ _ _ _ _

Approach to implementation

1. Is the A-CDM implementation a national program/project or a local airport by airport project? *(Please select the applicable box)*

It is a national program where A-CDM is being implemented at several airports with one entity managing the overall program to facilitate common procedures and approach to the implementations	
It is an "airport-by-airport" approach where each project is managed at "local" level	
It is a combination of a national program and separate airport projects manager at "local" level	
There is not yet an implementation plan for A-CDM	

Please add free text comments if needed:

2. If A-CDM has been/is Implemented / going to be implemented, please indicate at which airports and by what year:

Airport	Year

Add additional lines as needed

For EACH airport mentioned above, please provide separate responses to QUESTIONS 3 to 22:

A-CDM Implementation Plan

Status of A-CDM implementation

3. In which of the following phases is the A-CDM implementation?
(Please select the box that is the most suitable option)

No planning, i.e. nothing in relation to A-CDM has started yet	
Initial planning, i.e. collecting information about guidance material etc. to set the scope of the projects	
Planning well underway, i.e. scope set, engaged with stakeholders etc.	
Ready to launch A-CDM implementation project	
A-CDM implemented, i.e. procedures are in place and used in the "day-to-day" operations (Please indicate number of years for A-CDM used in day-to-day operations.	

A-CDM Project Scope

4. Which one of the A-CDM conceptual elements are being implemented as part of the A-CDM project? (*Please select the applicable box(es))*

Information sharing	
Milestone Management	
Variable Taxi Times	
Collaborative Management of Flight Updates	
Pre Departure Sequencing	
A-CDM in adverse conditions	
Integration with Air Traffic Flow Management (ATFM)	

Please add free text comments if needed:

5. How is Information sharing implemented as par to the solution/planned A-CDM solution?
(*Please select the applicable box(es))*

Via Information Sharing platform collecting data in real-time from various systems.	
Via manual interaction and information exchange	
A combination of the two alternatives above	

Please add free text comments if needed:

6. What Milestones (based on the Eurocontrol model) are captured/planned to be captured for the Milestone Management? *(Please select the applicable box(es) and please indicate if the implementation/planned implementation uses any other names for the milestones)*

Eurocontrol Milestones	Applied	Alternative name
Milestone 1 - ATC Flight Plan Activated		
Milestone 2 - CTOT Allocation/EOBT – 2 Hrs		

Milestone 3 - Take off from Outstation		
Milestone 4 - Local Radar Update/FIR Entry		
Milestone 5 - Final Approach		
Milestone 6 - Landed		
Milestone 7 - In Block		
Milestone 8 - Aircraft at Gate		
Milestone 9 - TOBT Entered		
Milestone 10 - TSAT Issued		
Milestone 11 - Boarding Starts		
Milestone 12 - Aircraft Ready		
Milestone 13 - Start-up Request		
Milestone 14 - Start-up Approved		
Milestone 15 - Off Block		
Milestone 16 - Take Off		

Please add free text comments if needed:

7. Are you planning to apply the concept of Target Off Block Times? *(Please select the applicable box)*

No	
Yes, and this will be the responsibility of the Airlines and/or appointed Ground Handlers to manage and update the Target Off Block Times (TOBT) in order to ensure that TOBT is accurate and reliable.	

   a. If yes, will the project provide a solution that facilitates predictive TOBT calculations? *(Please select the applicable box)*

No	
Yes	

8. What methodology is applied/going to be applied for calculating Variable Taxi Time? *(Please select the applicable box)*

"Table look up" utilizing fixed taxi time from gates to runways.	
Dynamic Variable Taxi Time using self-learning algorithms based on real-time and statistical surveillance data	

9. How is Target Start-Up Approval Time (TSAT) being calculated as part of Pre-Departure Sequencing? *(Please select the applicable box)*

Manual TSAT calculations	
Automatic TSAT calculations utilizing a Pre Departure Sequence or full Departure Management system/capability	

   a. If TSAT Is calculated automatically, at what key milestones are the TSAT calculated/re-calculated? *(Please select the applicable box(es))*

Milestone 1 - ATC Flight Plan Activated	
Milestone 2 - CTOT Allocation/EOBT – 2 Hrs	
Milestone 3 - Take off from Outstation	
Milestone 4 - Local Radar Update/FIR Entry	

Milestone 5 - Final Approach	
Milestone 6 - Landed	
Milestone 7 - In Block	
Milestone 8 - Aircraft at Gate	
Milestone 9 - TOBT Entered	
Milestone 10 - TSAT Issued	
Milestone 11 - Boarding Starts	

10. How TSAT information is shared to Airlines operators/Ground Handling Agencies? *(Please select the applicable box(es))*

Via A-CDM portal/web interface/application	
Via mobile application	
Via Automatic Parking Aid displays at gate	
Data link	
Radio communication	

11. What are the key parameters for data exchange between ACDM and ATFM? *(Please specify in free text in the text box)*

12. To establish the A-CDM project, has any guidance material been used to facilitate the scope and objectives? *(Please select the applicable box)*

Yes	
No	

a. If yes, please indicate what guidance material has been used. *(Please select the applicable box(es))*

ICAO Doc 9971	
Eurocontrol A-CDM Manual	
CANSO A-CDM Guidance Material	
FAA Surface CDM material	
IATA Guidance material	
Specific airport “operational guidelines” materials	
Other material like Eurocae or ETSI standards for A-CDM (*Please specify)*	

Please add free text comments if needed:

Local Concept of Operations

13. Has a “Local Concept of Operations” document for the A-CDM implementation been established? *(Please select the applicable box)*

Yes	
No	

a. If yes, please indicate the scope of the document. *(Please select the applicable box(es))*

It sets out the objectives that A-CDM is aiming to achieve	

It provides a common vocabulary with all definitions for A-CDM	
It provides information about information sharing and the sources for the information collected	
It provides information about the milestones used in the A-CDM process	
It defines each participating stakeholder's role and responsibilities as part of the A-CDM process	
It provides how A-CDM shall operate during irregular operations	
It provides descriptions of the process steps for various regular and irregular operations	
It includes how to measure the success of A-CDM once implemented, i.e. Key Performance Indicators (KPIs)	

Please add free text comments if needed:

Stakeholder Engagement

14. Which stakeholders are involved in the A-CDM implementation? *(Please select the applicable box(es))*

Airport operator	
Airline operators	
Ground handlers	
Air Navigation Service Provider	
Network Operations/ATFM unit	
Others (*Please specify)*	

15. Has a Memorandum of Understanding (MOU) been established between the stakeholders? *(Please select the applicable box)*

Yes	
No	

Please add free text comments if needed:

Project Implementation

16. Has a project group been established with all stakeholders involved? *(Please select the applicable box)*

Yes	
No	

Please add free text comments if needed:

17. Is there a shared leadership or is the project management led by one organization? (*Please select the applicable box)*

Shared leadership	

Leadership is appointed from one organization	

a. Please explain why one of the options is applied:

18. Is the project group meeting held on a regular basis or ad-hoc? (*Please select the applicable box)*

Regular	
Ad-hoc	

a. Please explain why one of the options is applied:

19. What are the objectives identified in the project that A-CDM is aiming to achieve? *(Please select the applicable box(es))*

Increase predictability	
Increase on-time performance	
Improve resource utilization	
Reduce taxi times	
Increase airport efficiency	
Reduce environmental nuisance	
Optimise the use of available capacity	
Improved safety	
Other *(please indicate what other objectives are identified in box below)*	

Please add free text comments if needed:

20. Has the project identified a more detailed Key Performance Framework with Key Performance Indicators to facilitate the measurements of the A-CDM implementation? *(Please select the applicable box)*

Yes	
No	

a. If yes, would the project team be willing to share this work with the ICAO Regional officer for Aerodromes and Ground Aids (AGA) to aid in its future work such as the establishment of more detailed A-CDM guidelines? *(Please select the applicable box)*

Yes	
No	

Please add free text comments if needed:

Training

21. Has the project established training in any of the following areas for the implementation of A-CDM? *(Please select the applicable box(es))*

Initial training for stakeholders to "what is A-CDM"	
Advanced training for stakeholders to "what is A-CDM"	
Training on how to operate under A-CDM procedures for all stakeholders	
Specialized/tailored training for each user in relation to "what do I need to do when A-CDM is operational at the airport"?	

Please add free text comments if needed:

Challenges

22. Please rank what hold most true in relation to your A-CDM implementation. (Please use 1-5 where 1 indicates "no, do not agree at all" and 5 is "yes, agree completely").

A-CDM as a concept is too complicated and vague	
Developed guidelines are not enough to understand how A-CDM shall be implemented successfully	
It is challenging to understand what an A-CDM implementation is, i.e. what has to be achieved to say "yes, we have A-CDM at our airport"	
The challenge is to understand what system(s) is(are) and information are needed to implement A-CDM	
It is challenging to get all stakeholders engaged and committed to the A-CDM project	
It is challenging to manage the A-CDM project	
It is challenging to understand what value A-CDM will bring	
It is very complicated to establish how to measure the success of A-CDM	

Please add free text comments if needed:

APPENDIX 4D

MID REGION ASBU Threads & Elements (Block 0 & 1) Monitoring Table (ACDM & SURF)

Priority 1: Elements that have the highest contribution to the improvement of air navigation safety, capacity and/or efficiency in the MID Region. These elements should be implemented where applicable and will be used for the purpose of regional air navigation monitoring and reporting.

Priority 2: Elements recommended for implementation based on identified operational needs and benefits.

Priority 1 Thread: Any thread with at least 1 priority 1 element.

THREAD	Element code	Title	Priority	Applicability	Performance Indicators/Supporting Metrics	Targets	Timelines
SURF	B0/1	Basic ATCO tools to manage traffic during ground operations	1	OBBI, HECA, OIII, OKBK, OOMS, OTBD, OTHH, OEDF, OEJN, OERK, OMDB, OMAA, OMDW, OEMA	Indicator: % of Airports having implemented Basic ATCO tools to manage traffic during ground operations Supporting metric*: Number of Airports having implemented Basic ATCO tools to manage traffic during ground operations	70%	Dec. 2017
	B0/2	Comprehensive situational awareness of surface operations	1	OBBI, HECA, OIII, OKBK, OOMS, OTBD, OTHH, OEDF, OEJN, OERK, OMDB, OMAA, OMDW, OEMA	Indicator: % of Airports having implemented the surveillance service of A-SMGCS Supporting metric*: Number of Airports having implemented the surveillance service of A-SMGCS	50%	Dec. 2017
	B0/3	Initial ATCO alerting service for surface operations	1	OBBI, HECA, OIII, OKBK, OOMS, OTBD, OTHH, OEDF, OEJN, OERK, OMDB, OMAA, OMDW, OEMA	Indicator: % of Airports having implemented the A-SMGCS alerting service. Supporting metric*: Number of Airports having implemented the A- SMGCS alerting service	50%	Dec. 2017

THREAD	Element code	Title	Priority	Applicability	Performance Indicators/Supporting Metrics	Targets	Timelines
ACDM	B0/1	Airport CDM Information Sharing (ACIS)	1	OBBI, HECA, OIII, OKBK, OOMS, OTBD, OTHH, OEJN, OERK, OMDB, OMAA	Indicator: % of Airports having implemented ACIS Supporting metric*: number of Airports having implemented ACIS	50%	Dec. 2018
	B0/2	Integration with ATM Network function	1	OBBI, HECA, OIII, OKBK, OOMS, OTBD, OTHH, OEJN, OERK, OMDB, OMAA	Indicator: % of Airports having integrated ACDM with the ATM Network function. Supporting metric*: Number of Airports having integrated ACDM with the ATM Network function	50%	Dec. 2018
	B1/1	Airport Operations Plan (AOP)	1	OBBI, HECA, OIII, OKBK, OOMS, OTBD, OTHH, OEJN, OERK, OMDB, OMAA	Indicator: % of Airports having implemented an Airport Operations Plan (AOP) Supporting metric*: having implemented an Airport Operations Plan (AOP)	50%	Dec. 2018

APPENDIX 4E

MID REGION ASBU Threads & Elements (Block 0 & 1) Prioritization Table
As of the latest update provided by the ATM SG/6 Virtual Meeting

Thread	Element code	Title	Priority	Start Date	Monitoring		Remarks
					Main	Supporting	
Technology Threads							
ASUR	**B0/1**	ADS-B	1	2020	CNS SG	ATM SG ASPIG	
	B0/2	MLAT	1	2020	CNS SG	ATM SG ASPIG	
	B0/3	SSR-DAPS	1	2020	CNS SG	ATM SG ASPIG	
	B1/1	SB ADS-B	2				
NAVS	**B0/1**	Ground Based Augmentation Systems (GBAS)	2				
	B0/2	Satellite Based Augmentation Systems (SBAS)	2				
	B0/3	Aircraft Based Augmentation Systems (ABAS)	1	2020	CNS SG	PBN SG ATM SG AIM SG	
	B0/4	Navigation Minimal Operating Networks (Nav. MON)	1	2020	CNS SG	PBN SG	
	B1/1	Extended GBAS	2				
COMI	**B0/1**	Aircraft Communication Addressing and Reporting System (ACARS)	2				
	B0/2	Aeronautical Telecommunication Network/Open System Interconnection (ATN/OSI)	2				
	B0/3	VHF Data Link (VDL) Mode 0/A	2				

	B0/4	VHF Data Link (VDL) Mode 2 Basic	2				
	B0/5	Satellite communications (SATCOM) Class C Data	2				
	B0/6	High Frequency Data Link (HFDL)	2				
	B0/7	AMHS	1	2014	CNS SG		
	B1/1	Ground-Ground Aeronautical Telecommunication Network/Internet Protocol Suite (ATN/IPS)	1	2020	CNS SG		
	B1/2	VHF Data Link (VDL) Mode 2 Multi-Frequency	2				
	B1/3	SATCOM Class B Voice and Data	2				
	B1/4	Aeronautical Mobile Airport Communication System (AeroMACS) Ground-Ground	2				
Information Threads							
DAIM	**B1/1**	Provision of quality-assured aeronautical data and information	1	2020	AIM SG		It was B0, monitored earlier
	B1/2	Provision of digital Aeronautical Information Publication (AIP) data sets	2				
	B1/3	Provision of digital terrain data sets	1	2020	AIM SG		It was B0, monitored earlier
	B1/4	Provision of digital obstacle data sets	1	2020	AIM SG		It was B0, monitored earlier
	B1/5	Provision of digital aerodrome mapping data sets	2				

	B1/6	Provision of digital instrument flight procedure data sets	2				
	B1/7	NOTAM improvements	2				
FICE	**B0/1**	Automated basic inter facility data exchange (AIDC)	1	2014	CNS SG ATM SG		
AMET	**B0/1**	Meteorological observations products	1	2014	MET SG		
	B0/2	Meteorological forecast and warning products	1	2014	MET SG		
	B0/3	Climatological and historical meteorological products	1	2014	MET SG		
	B0/4	Dissemination of meteorological products	1	2014	MET SG	CNS SG	
	B1/1	Meteorological observations information	2				
	B1/2	Meteorological forecast and warning information	2				
	B1/3	Climatological and historical meteorological information	2				
	B1/4	Dissemination of meteorological information	2				
Operational Threads							
APTA	**B0/1**	PBN Approaches (with basic capabilities)	1	2014	PBN SG	ATM SG AIM SG CNS SG	

	B0/2	PBN SID and STAR procedures (with basic capabilities)	1	2014	PBN SG	ATM SG AIM SG	
	B0/3	SBAS/GBAS CAT I precision approach procedures	2				
	B0/4	CDO (Basic)	1	2014	PBN SG	ATM SG	
	B0/5	CCO (Basic)	1	2014	PBN SG	ATM SG	
	B0/6	PBN Helicopter Point in Space (PinS) Operations	2				
	B0/7	Performance based aerodrome operating minima – Advanced aircraft	1	2020	ATM SG PBN SG	AIM SG	
	B0/8	Performance based aerodrome operating minima – Basic aircraft	2				
	B1/1	PBN Approaches (with advanced capabilities)	2				
	B1/2	PBN SID and STAR procedures (with advanced capabilities)	2				
	B1/3	Performance based aerodrome operating minima – Advanced aircraft with SVGS	2				
	B1/4	CDO (Advanced)	2				

	B1/5	CCO (Advanced)	2				
B0-FRTO	**B0/1**	Direct routing (DCT)	2				
	B0/2	Airspace planning and Flexible Use of Airspace (FUA)	1	2014	ATM SG	AIM SG	
		Level 1 Strategic	1	2014	ATM SG	AIM SG	
		Airspace planning and Flexible Use of Airspace (FUA) Level 2	1	2014	ATM SG	AIM SG	
	B0/3	Pre-validated and coordinated ATS routes to support flight and flow	2				
	B0/4	Basic conflict detection and conformance monitoring	1	2014	ATM SG	CNS SG	
	B1/1	Free Route Airspace (FRA)	2				
	B1/2	Required Navigation Performance (RNP) routes	2				
	B1/3	Advanced Flexible Use of Airspace (FUA) and management of real time airspace data	2				
	B1/4	Dynamic sectorization	2				
	B1/5	Enhanced Conflict Detection Tools and Conformance Monitoring	2				

	B1/6	Multi-Sector Planning	2				
	B1/7	Trajectory Options Set (TOS)	2				
NOPS	**B0/1**	Initial integration of collaborative airspace management with air traffic flow management	1	2015	ATM SG		
	B0/2	Collaborative Network Flight Updates	2				
	B0/3	Network Operation Planning basic features	2				
	B0/4	Initial Airport/ATFM slots and A-CDM Network Interface	2				
	B0/5	Dynamic ATFM slot allocation	2				
	B1/1	Short Term ATFM measures	2				
	B1/2	Enhanced Network Operations Planning	2				
	B1/3	Enhanced integration of Airport operations planning with network operations planning	2				
	B1/4	Dynamic Traffic Complexity Management	2				
	B1/5	Full integration of airspace management with air traffic flow management	2				

	B1/6	Initial Dynamic Airspace configurations	2				
	B1/7	Enhanced ATFM slot swapping	2				
	B1/8	Extended Arrival Management supported by the ATM Network function	2				
	B1/9	Target Times for ATFM purposes	2				
	B1/10	Collaborative Trajectory Options Program (CTOP)	2				
ACAS	**B1/1**	ACAS Improvements	1	2014	ATM SG CNS SG		It was B0, monitored earlier
SNET	**B0/1**	Short Term Conflict Alert (STCA)	1	2017	ATM SG	CNS SG	
	B0/2	Minimum Safe Altitude Warning (MSAW)	1	2017	ATM SG	CNS SG	
	B0/3	Area Proximity Warning (APW)	1	2020	ATM SG	CNS SG	
	B0/4	Approach Path Monitoring (APM)	2				
	B1/1	Enhanced STCA with aircraft parameters	2				
	B1/2	Enhanced STCA in complex TMA	2				

SURF	**B0/1**	Basic ATCO tools to manage traffic during ground operations	1	2014	ASPIG	ATM SG CNS SG	
	B0/2	Comprehensive situational awareness of surface operations	1	2014	ASPIG	ATM SG CNS SG	
	B0/3	Initial ATCO alerting service for surface operations	1	2020	ASPIG	ATM SG CNS SG	
	B1/1	Advanced features using visual aids to support traffic management during ground operations	2		ASPIG	ATM SG CNS SG	
	B1/2	Comprehensive pilot situational awareness on the airport surface	2		ASPIG	ATM SG CNS SG	
	B1/3	Enhanced ATCO alerting service for surface operations	2		ASPIG	ATM SG CNS SG	
	B1/4	Routing service to support ATCO surface operations management	2		ASPIG	ATM SG CNS SG	
	B1/5	Enhanced vision systems for taxi operations	2		ASPIG	ATM SG CNS SG	
ACDM	**B0/1**	Airport CDM Information Sharing (ACIS)	1	2014	ASPIG	CNS SG, AIM SG,	

						ATM SG	
	B0/2	Integration with ATM Network function	1	2014	ASPIG	CNS SG, AIM SG, ATM SG	
	B1/1	Airport Operations Plan (AOP)	1	2020	ASPIG	CNS SG, AIM SG, ATM SG	
	B1/2	Airport Operations Centre (APOC)	2		ASPIG	CNS SG, AIM SG, ATM SG	
GADS	**B1/1**	Aircraft Tracking	2				
	B1/2	Contact directory service	1	2020	CNS ATM		
RSEQ	**B0/1**	Arrival Management	1	2020	ATM	ASPIG CNS SG	
	B0/2	Departure Management	2				
	B0/3	Point merge	2				
	B1/1	Extended arrival metering	2				

APPENDIX 4F

INITIAL LIST OF MID REGION Air Navigation KPIs
As of the latest version provide by the ATM SG/6 Virtual Meeting

KPI	Title	Definition	Measurement Units	Variants	Parameters	Objects Characterized	Data Requirement	Formula / Algorithm	Timeframe	Data Feed Providers
01	Departure punctuality	Percentage of flights departing from the gate on-time (compared to schedule).	% of scheduled flights	~~**Variant 1A** – % of departures within ± 5 minutes of STD~~ ~~**Variant 1B** – % of departures delayed ≤ 5 minutes versus schedule~~ **Variant 2A** – % of departures within ± 15 minutes of scheduled time of departure ~~**Variant 2B** – % of departures delayed ≤ 15 minutes versus schedule~~	On-time threshold (maximum positive or negative deviation from scheduled departure time) which defines whether a flight is counted as on-time or not. ~~***Recommended values:*** 5 minutes & 15 minutes.~~	The KPI is typically computed for traffic flows, individual airports, or clusters of airports (selection/grouping based on size and/or geography).	For each departing scheduled flight: - Scheduled time of departure (STD) or Scheduled off-block time (SOBT) - Actual off-block time (AOBT)	***At the level of individual flights:*** 1. Exclude non-scheduled departures 2. Categorize each scheduled departure as on-time or not ***At aggregated level:*** 3. Compute the KPI: number of on-time departures divided by total number of scheduled departures	1 month	Schedule database(s), airports, airlines and/or ANSPs

KPI	Title	Definition	Measurement Units	Variants	Parameters	Objects Characterized	Data Requirement	Formula / Algorithm	Timeframe	Data Feed Providers
02	Taxi-out additional time	Actual taxi-out time compared to an unimpeded/reference taxi-out time.	Minutes/flight	**Variant 1** – basic (computed without departure gate and runway data) ~~**Variant 2** – advanced (computed with departure gate and runway data)~~	Unimpeded/reference taxi-out time: ***Recommended approach for the basic variant of the KPI***: a single value at airport level, e.g. the 20th percentile of actual taxi times recorded at an airport, sorted from the shortest to the longest. ***Recommended approach for the advanced variant of the KPI:*** a separate value for each gate/runway combination, e.g. the average actual taxi-out time recorded during periods of non-congestion (needs to be periodically reassessed).	The KPI is typically computed for individual airports, or clusters of airports (selection/grouping based on size and/or geography).	For each departing flight: - Actual off-block time (AOBT) - Actual take-off time (ATOT) In addition, for the advanced KPI variant: - Departure gate ID - Take-off runway ID	***At the level of individual flights:*** 1. Select departing flights, exclude helicopters 2. Compute actual taxi-out duration: ATOT minus AOBT 3. Compute additional taxi-out time: actual taxi-out duration minus unimpeded taxi-out time ***At aggregated level:*** 4. Compute the KPI: sum of additional taxi-out times divided by number of IFR departures	1 month	Airports (airport operations, A-CDM), airlines (OOOI data), ADS-B data providers and/or ANSPs

KPI	Title	Definition	Measurement Units	Variants	Parameters	Objects Characterized	Data Requirement	Formula / Algorithm	Timeframe	Data Feed Providers
13	Taxi-in additional time	Actual taxi-in time compared to an unimpeded/reference taxi-in time	Minutes/flight	**Variant 1 –** basic (computed without landing runway and arrival gate data) ~~**Variant 2 – advanced (computed with landing runway and arrival gate data)**~~	Unimpeded/reference taxi-in time: ***Recommended approach for the basic variant of the KPI:*** a single value at airport level, e.g. the 20th percentile of actual taxi times recorded at an airport, sorted from the shortest to the longest ***Recommended approach for the advanced variant of the KPI:*** a separate value for each runway/gate combination, e.g. the average actual taxi-in time recorded during periods of non-congestion (needs to be periodically reassessed)	The KPI is typically computed for individual airports, or clusters of airports (selection/grouping based on size and/or geography).	For each arriving flight: Actual landing time (ALDT) Actual in-block time (AIBT) In addition, for the advanced KPI variant: Landing runway ID Arrival gate ID	***At the level of individual flights:*** 1. Select arriving flights, exclude helicopters 2. Compute actual taxi-in duration: AIBT minus ALDT 3. Compute additional taxi-in time: actual taxi-in duration minus unimpeded taxi-in time ***At aggregated level:*** 4. Compute the KPI: sum of additional taxi-in times divided by number of IFR arrivals	1 month	Airports (airport operations), airlines (OOOI data), ADS-B data providers and/or ANSPs

KPI	Title	Definition	Measurement Units	Variants	Parameters	Objects Characterized	Data Requirement	Formula / Algorithm	Timeframe	Data Feed Providers
14	Arrival punctuality	Percentage of flights arriving at the gate on-time (compared to schedule)	% of scheduled flights	~~**Variant 1A** – % of arrivals within ± 5 minutes of scheduled time of arrival~~ ~~**Variant 1B** – % of arrivals delayed ≤ 5 minutes versus schedule~~ **Variant 2A** – % of arrivals within ± 15 minutes of scheduled time of arrival ~~**Variant 2B** – % of arrivals delayed ≤ 15 minutes versus schedule~~	On-time threshold (maximum positive or negative deviation from scheduled arrival time) which defines whether a flight is counted as on-time or not. ~~***Recommended values:*** 5 minutes and 15 minutes.~~	The KPI is typically computed for traffic flows, individual airports, or clusters of airports (selection/grouping based on size and/or geography).	For each arriving scheduled flight: - Scheduled time of arrival (STA) or Scheduled in-block time (SIBT) - Actual in-block time (AIBT)	***At the level of individual flights:*** 1. Exclude non-scheduled arrivals 2. Categorize each scheduled arrival as on-time or not ***At aggregated level:*** 3. Compute the KPI: number of on-time arrivals divided by total number of scheduled arrivals	1 month	Schedule database(s), airports, airlines and/or ANSPs

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ATTACHMENT

ICAO MID

ATTACHMENT A

Second Meeting of the Aerodrome Safety, Planning and Implementation Group(ASPIG/2)

Virtual Meeting, 24-26 November 2020
(from 11:00 to 01:00 UTC)

State/ Org	Contact	Title
Bahrain	Ms. Ebtisam Saleh Mohamed	Senior Civil Engineer
	Mr. Sunil Kumar Cheriyath	Senior Aerodrome Safety Standard Specialist
	Ms. Leena Ahmed Al Khooheji	Chief Airport & Air Navigation Audit
	Mr. Mohamed Abdulla Zainal	Director of Aviation Safety & Security
Egypt	Mr. Ahmed Salah Eldin Sayed Ahmed Aly	Head of Technical Inspection Department – (follow me Officer)
	Chem. Mohamed Ibrahim Atef EL-hefnawy	Aviation Safety Specialist
	Mr. Walid Ahmed Rawash	Air traffic Controller Officer
	Eng. Basma Refat Abd El- hamed	Compliance and Safety General Manager
	Mr. Tamer Mohamed Ismaeel	Air traffic Controller Officer
	Mr. Essam Akl Moawad	Air traffic Controller Officer
	Mr. Ehab Aly Hassanien Hassan	Air traffic Controller Officer
	MR. Hesham Mamdouh Zaghloul	Air Traffic Control Officer
	Mr. Mohamed Ebrahim Galal	Head of Technical Office –Operations Sector
	Eng. Mohamed Abdel Fattah	Aerodrome Inspector
	Eng. Khaled Zakaria Ahmed	Aerodrome Inspector
	Eng. Ahmed Arafa Abdel Aziz	Airport Standard Director
	Eng. Nour Elhoda Mahmoud	Aerodrome Inspection Manager
	Mr. Atef Safa Ali	Airport Safety General Manager
Iran	Mr. Seyed Hamid Reza Sanei	Aeronautical Operation Chief Expert & Aerodrome Inspector
	Mr. Meisam Shakerarani	Director for Aerodrome Oversight Bureau
	Mr. Hossein Pazoki	Aerodrome Inspector
	Mr. Ghasem Rahmani kivi	Expert of Air navigation Services
	Mr. Majid Mahdavi Zafarqandi	

State/ Org	Contact	Title
	Mr. Ali Akbar Yazdani	Aviation Operations Supervision Expert
Iraq	Mr. Maitham Umran Hassan	Chief Engineer
	Mr. Saif Hasan Abbas	Engineer
Jordan	Mrs.Ihda Nabil Musallam Kafawin	Aerodrome Safety Inspector
	Mr. Muneeb Anwar Al-Ali	Director Aerodrome Safety and Standards
	Mr. Mohammad Hushki	Director Quality Assurance and Internal Audit/NCMC
	Mr. Abdalrahman Abu-jbara	Aerodrome Safety Inspector
Kuwait	Mr. Jassim Al Khazaal	Head of Aerodrome Division
	Ms. Nour B. Abughosh	Aerodrome Inspector
Lebanon	Mrs. Angele Aouad Ph.D	Director Research and Studies Department
Libya	Mr. Omar El Mukhtar Tailamoun	Aerodromes Inspector
Qatar	Mr. Jean-Paul de Villeneuve	Head of the Aerodrome Standards and Safety Section
	Mr. Emmanuel Hayford	Aerodrome Inspector
	Mr. Daniel Parsons	Aerodrome Inspector
	Mr. Onder Turker	Aerodrome Inspector
Saudi Arabia	Mr. Anas Ibrahim Fallatah	Flight Procedures Manager
	Mr. Abdullah Almarri	Environment Inspector
	Dr. B P. Shhagwat P. Sharma	Airport Engineering Expert
	Mr. Abdullah Saad Alahmadi	Aviation obstacle Manager
	Mr. AlAmri, Ahmad Saad A	ATM Safety and Quality Supervisor, Eastern Sector
	Mr. Essam Daifallah Ahmed Al-Eryani	ATC Operation Specialist
	Mr. Balto, Ibrahim Abdulhadi	ATM Safety and Quality Western Supervisor.
	Mr. Faisal Ahmed Alubbad	General Manager of Aerodromes Standards
	Mr. Ridha Dridi	ANS Technical and Safety Advisor
	Mr. Faisal Alzahrani	Automation System Engineering / Project Manager

State/ Org	Contact	Title
	Mr. Ali Saud Aldyab	Ground Services Standards General Manager
	Mr. Mutaz Talat Albar	Ground Services Manager
	Mr. Loay Beshawri	Automation\Surveillance Engineering Manager
Sudan	Mr. Fakhreldin Osman Ahmed Mehadi	Aerodromes Certification Consultant
	Mr. Mohamed Eltayeb Ahmed	Acting Director of Air Navigation Regulatory directorate
	Ms. Rafaa Adam Ahmed Deafalla	ANS Inspector- Chartography Section
	Mrs. Aziza Hisham Dawood Abdalaziz	Aerodrome Safety Inspector
	Mr. Mohamed Elsabig Elsayed Maki	Aerodrome Safety Inspector
Syria	Mrs. Satnai Niazi Chaker	Safety Department
	Ms. Reema El Hasry	Airports Inspector
	Mr. Shadi Barkil	Airports Inspector
	Mr. Ibrahim Nagar	Airports Inspector
UAE	Mrs. Reem Hussain Al Saffar	Inspector - Aerodrome Operations
	Eng. Abduladhim Mohamed Ali Sutlan	Specialist – Aerodrome
	Mr. Mohammed Yousif Mohamed	Aerodromes Section Manager
USA	Mr. Freddie L. James	Airport Certification Safety Inspector/Specialist
	Mr. Robert Roxbrough	Senior Representative – Abu Dhabi Office of International Affairs
Yemen	Ms. Sumaia alkaff	AGA Aerodrome Instructor
ACI	Mrs. Issa Castro	Director, Training Programmes
IATA	Mr. Jehad Faqir	Assistant Director Safety & Flight Operations
ICAO HQ	Mr. Lahlou, Mekki	TRAINAIR PLUS Programme Coordinator, TCB/GAT/TOP
	Mr. RC Raman	Technical Officer (AOI), ANB/AN/AOI
	Ms. Samaniego, Janet	Training Implementation Associate, TCB/GAT/TOP
ICAO-MID	Mr. Mohamed Smaoui	Acting Regional Direcotr
	Mr. Mashhor Alblowi	RO/FLS

State/ Org	Contact	Title
	Mrs. Muna Alnadaf	RO/CNS
	Mr. Mohamed Chakib	RO/SAF-IMP
	Mr. Mohamed Iheb Hamdi	RO/AGA
	Mr. Radhouan Aissaoui	RO/AIM
	Mr. Ahmed Amireh	RO/ATM/SAR
	Mr. Ahmad Kavehfirouz	RO/ATM
	Mrs. Hoda Gabriel	Technical Assistant

- END –