



International Civil Aviation Organization

MIDANPIRG Communication, Navigation and Surveillance Sub-Group

Thirteenth Meeting (CNS SG/13)

(Jeddah, Saudi Arabia, 20 – 23 October 2024)

Agenda Item 2: Follow-up on MIDANPIRG/21 Conclusions and Decisions relevant to CNS

FOLLOW-UP ON MIDANPIRG/21 CONCLUSIONS AND DECISIONS RELEVANT TO CNS

(Presented by the Secretariat)

SUMMARY

This paper presents MIDANPIRG/21 Conclusions and Decisions relevant to CNS and the follow-up actions taken.

Action by the meeting is at paragraph 3.

REFERENCES

- MIDANPIRG/21 and RASG-MID/11 (Abu Dhabi, United Arab Emirates, 4 - 8 March 2024) Report

1. INTRODUCTION

1.1 The Twenty First Meeting of the Middle East Air Navigation Planning and Implementation Regional Group and the Eleventh Meeting of the Regional Aviation Safety Group-Middle East (MIDANPIRG/21 & RASG-MID/11) were held in Abu Dhabi, UAE from 4 to 8 March 2024. The meeting may wish to note that that the MIDANPIRG/21 meeting adopted 45 Conclusions and Decisions.

2. DISCUSSION

2.1 The meeting may wish to recall that the CNS Sub-Group is tasked with the follow-up on the implementation process related to CNS and to inform MIDANPIRG on progress, achievement, and problems being encountered.

2.2 This paper provides the meeting with an update on the status of MIDANPIRG/21 Conclusions and Decisions related to CNS. It also shows the follow-up actions taken by concerned parties as at **Appendix A**.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the follow-up actions on the list of Conclusions and Decisions at **Appendix A**; and
- b) provide updates as appropriate.

FOLLOW-UP ON MIDANPIRG/21 CONCLUSIONS & DECISIONS

PART - ANS: MATTERS

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C.21/2	<p>MID REGION AIR NAVIGATION STRATEGY, EDITION, FEBRUARY 2024</p> <p>That, the MID Region Air Navigation Strategy, Edition February 2024 (ICAO MID DOC 002), is endorsed and be published by the ICAO MID Office.</p>	To harmonize the implementation within the Region	Revised version of MID Doc 002	ICAO MID	Feb 2024	Completed
C.21/3	<p>NATIONAL AIR NAVIGATION PLAN (NANP)</p> <p>That, the MID States with support of ICAO MID Office develop their National Air Navigation Plan (NANP) by end of December 2024.</p>	Implementation of RANP within the MID Region	National Air Navigation Plans	MID States	Dec 2024	Completed Kuwait ANP developed Jordan ANP ongoing Requests from Iran and Qatar
C.21/4	<p>MID AIR NAVIGATION REPORT - 2023</p> <p>That, the MID Air Navigation Report-2023 is endorsed and be published by the ICAO MID Office.</p>	Reflect the implementation Status of RANP within the MID Region	MID Air Navigation Report 2023	ICAO MID	March 2024	Completed
D.21/16	<p>MID ADS-B HEIGHT MONITORING SYSTEM (MID AHMS)</p> <p><i>That,</i></p> <p><i>a) States implementing ADS-B to share the archived data with the MIDRMA for evaluation and analysis;</i></p> <p><i>b) MIDRMA to coordinate with MAAR for:</i></p> <p><i>i. sharing their experience in evaluating and analyzing samples of the received ADS-B data; and</i></p> <p><i>ii. providing required training related to AHMS implementation for MIDRMA Staff.</i></p>	introduced ADS-B height monitoring within the services provided by the MIDRMA	MID-AHMS	MIDRMA	2025	On-going

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	<p>c) MIDRMA to develop a mechanism and tools for submitting the ADS-B data by States;</p> <p>d) MIDRMA provides the required training for CNS engineers from member states responsible for extracting ADS-B data from their systems and submitting it to MIDRMA at regular, mutually agreed intervals;</p> <p>e) MIDRMA to develop and document all required processes and procedures to be reflected in the training Manuals for the AHMS implementation, to be incorporated in the MIDRMA Tasks and responsibilities;</p> <p>f) MIDRMA shall continue to provide GMU monitoring service until the AHMS is fully operational, and for the Aircraft not included in the MID-AHMS; and</p> <p>g) the funding mechanism (including services charges) might be revised accordingly (based on cost -recovery basis). In accordance with ICAO Policies on charges for Airports and Air Navigation Services (Doc 9082), in coordination with IATA.</p>					
C.21/19	<p>DEVELOPMENT OF MID STATES ATFM PLAN</p> <p><i>That,</i></p> <p>a) based on the guidelines provided in ICAO MID Doc 014: ATFM Plan (V2.0), MID States develop their respective ATFM implementation plan and agreements with adjacent FIRs and share them with ICAO MID;</p> <p>b) by organizing individual workshops, ICAO MID supports the development of States National ATFM Plans and implementation of ICAO Doc 014 requirements for Phase I (including Phase IA & IB), where requested; and</p>	<p>Enhance the level of ATFM implementation within the Region</p>	<p>National ATFM Plan</p>	<p>MID States</p>	<p>2025</p>	<p>On-going</p>

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
	<p><i>c) the MID ATFM Task Force is tasked with the identification of Priority ATFM Implementation Areas within the MID Region, to enable further implementation support activities.</i></p>					
C.21/20	<p>MID FF-ICEWORKSHOPS 2024-2025</p> <p><i>That the FF-ICE Workshops be conducted in 2025, with the support of the ATFM TF and the relevant Subgroups to address the FF-ICE planning and implementation in the MID Region.</i></p>	<p>Regional plan to ensure the readiness of ANSPs and operators for a smooth transition to FF-ICE</p>	FF-ICE implementation plan/roadmap	MID States	2025	On-going
C.21/26	<p>NAV MON PLAN TEMPLATE</p> <p><i>That, the CNS SG in coordination with ATM SG and PBN SG review and update, as deem necessary, the NAV MON Plan Template to be presented to MIDANPIRG/22 for endorsement.</i></p>	<p>Consultation for the implementation methodology and criteria related to the regional Navigation MON.</p>	Updated MON NAV plan template	States	2025	On-going
C.21/27	<p>GNSS RFI Mitigation</p> <p><i>That,</i></p> <p><i>a) States affected with GNSS RFI take necessary mitigation measures and provide update to the ICAO MID Office by 30 May 2024; and</i></p> <p><i>b) the ATM SG in coordination with AIM, CNS and PBN SGs to address the reported occurrences and review the MID RSA 014 on GNSS Vulnerabilities as deemed necessary to be presented to MIDANPIRG/22 – RASG-MID/12 for endorsement</i></p>	<p>Safety risk associated with GNSS interference</p>	Revise MID RSA014	States	2025	On-going

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
D.20/33	MIDANPIRG REVISED STRUCTURE <i>That, the revised MIDANPIRG Structure 2024 is endorsed to be included in MIDANPIRG Procedural Handbook.</i>	Consistency in establishment of experts' groups	Revised MIDANPIRG structure	MIDANPIRG	2025	On-going

PART B: CNS Technical Matters

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
MIDANPIRG C. 21/7	<p>WORKSHOP ON PBN/GNSS</p> <p>That, ICAO, jointly with ACAO organize a Workshop on GNSS/PBN in 2024.</p>	Enhance awareness about the GNSS Interference	Workshop	ICAO/ACAO	Q4 2024	On-going
MIDANPIRG D. 21/23	<p>REVIEW OF THE MID REGION ALLOTMENT PLAN</p> <p>That, in order to increase the amount of spectrum that can be used for Aeronautical Services, the CNS SG should adopt the revised planning Principle for Aeronautical Frequency Bands of 117.975-137 MHz and review and update, as deem necessary, the current MID allotment plan by Q1 2025.</p>	Increase the amount of spectrum that can be used for ATC Services	Updated MID Region allotment plan	Frequency Management Working Group (FM WG)	31 March 2024	On-going
MIDANPIRG C. 21/24	<p>OPTIMIZATION OF FREQUENCY ASSIGNMENT IN THE MID REGION</p> <p>That, in order to optimize the frequency assignment planning and mitigate VHF frequency congestion at regional level, States are urged to:</p> <ul style="list-style-type: none"> a) coordinate with ICAO MID Office before assigning frequencies for aeronautical services (VHF COM, VHF NAV); b) perform an update/review of the data in the VHF-COM/NAV module; and c) Submit Frequency Requirements for the Period 2023 – 2030 using the Guidance Doc. at Appendix 5L by Q4 2024. 	optimize the frequency assignment planning and mitigate VHF frequency congestion at regional level	States Feedback as per the MINADPIRG Conclusion Outcomes	MID States	31 August 2024	<p>On-going</p> <p>SL Ref.: AN 7/5.7-23/170 dated 15 Aug. 2023 Reminder email on 31 Oct. 2023</p> <p>3 replies received from UAE, Saudi Arabia and Egypt</p>

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
MIDANPIRG C. 21/25	<p>INTER-REGIONAL COMMUNICATION LINKS</p> <p>That, in order to enhance the AFS Network efficiency and performance, States be urged to:</p> <ul style="list-style-type: none"> a) investigate the occurrences related to loss of AFTN Data, b) migrate inter-regional communication links to AMHS; c) rationalize the inter-regional connections established on bilateral basis, taking into consideration the regional requirements set in the MID ANP Vol II and operational needs; and d) provide the ICAO MID with update the outcomes of a) and their AMHS implementation plans/progress by 30 May 2024. 	Enhance the AFS Network efficiency and performance	AMHS Migration and rationalized inter-regional connections	MID States	30 May 2024	<p>On-going</p> <p>SL Ref.: AN 7/5 & ME 3-23/240 dated 19 Oct. 2023</p>
MIDANPIRG C.21/27	<p>GNSS RFI MITIGATION</p> <p>That,</p> <ul style="list-style-type: none"> c) States affected with GNSS RFI take necessary mitigation measures and provide update to the ICAO MID Office by 30 May 2024; and d) the ATM SG in coordination with AIM, CNS and PBN SGs to address the reported occurrences and review the MID RSA 014 on GNSS Vulnerabilities as deemed necessary to be presented to MIDANPIRG/22 – RASG-MID/12 for endorsement. 	To mitigate GNSS RFI	States	States Feedback on GNSS RFI within their FIRs	30 May 2024	<p>On-going</p> <p>SL Ref.: ME 4 – 24/150 dated Oct. 2024</p>
MIDANPIRG C. 21/28	<p>CYBERSECURITY SYSTEMS RESILIENCE</p> <p>That, States consider the recommendations in Appendix 5M which would support the enhancement of their cybersecurity systems resilience.</p>	Reinforce Cybersecurity in the MID Region	MID Cybersecurity recommendations	ICAO/States	March 2024	<p>Completed</p>

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
RASG C.11/3	<p>GNSS INTERFERENCE AND SPOOFING</p> <p>That,</p> <p>a) ICAO with the support of states and IATA to establish a regionally determined minimum operational network (MON) of conventional navigation aids for use in case of GNSS interference /Spoofing;</p> <p>b) States be urged to develop mitigation measures to be used in case of GNSS interference;</p> <p>c) States to maintain adequate infrastructure to enable aircraft operators use of conventional navigation aids as appropriate during GNSS RFI or Spoofing;</p> <p>d) Original Equipment Manufacturers (OEMs) to provide further guidance and information on the effects and mitigations of GNSS RFI (including interference, jamming and spoofing) from the perspective of aircraft equipment;</p> <p>e) States to foster Civil-military coordination and cooperation; and</p> <p>ICAO with the support of States, ACAO, IATA and IFALPA to amend RASG-MID Safety Advisory – 14 including the update of the GNSS RFI statistics and to include GNSS spoofing effect and mitigation measures.</p>	<p>Definition of the minimum operational network (MON) of conventional navigation aids for use in case of GNSS interference/Spoofing.</p> <p>Lack of mitigation measures to be used in case of GNSS interference.</p> <p>Operations Continuity dung GNSS RFI or Spoofing</p> <p>Lack of coordination with Original Equipment Manufacturers (OEMs)</p> <p>Lack of coordination with the Military</p> <p>Amendment of the current RSA 14</p>	<p>minimum operational network (MON) of conventional navigation aids for use in case of GNSS interference/Spoofing.</p> <p>Proposed mitigation measures to be used in case of GNSS interference.</p> <p>Alternatives ensuring Operations Continuity dung GNSS RFI or Spoofing</p> <p>Establishment of coordination with OEMs</p> <p>Establishment of coordination with the Military side</p> <p>Amended RSA 14</p>	<p>ICAO, IATA and States</p> <p>States</p> <p>States</p> <p>States</p> <p>States</p> <p>States</p>	<p>Tentatively Q4 2024</p>	<p>On-going</p> <p>SL Ref.: ME 4 – 24/150 dated Oct. 2024</p>