



International Civil Aviation Organization

**Ninth Meeting of the Performance Based Navigation Sub-Group
(PBN SG/9)**

(Doha, Qatar, 9 - 11 December 2024)

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

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

(Presented by the Secretariat)

<p>SUMMARY</p> <p>This paper presents MIDANPIRG/21 Conclusions and Decisions relevant to PBN and the follow-up actions taken.</p> <p>Action by the meeting is at paragraph 3.</p>
<p>REFERENCES</p> <p>- MIDANPIRG/21 and RASG-MID/11 (Abu Dhabi, United Arab Emirates, 4 - 8 March 2024) Report</p>

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 MIDANPIRG/21 meeting adopted 45 Conclusions and Decisions; of which, 12 considered relevant to the work of the PBN.

2. DISCUSSION

2.1 The meeting may recall that the PBN Sub-Group is tasked with the follow-up on the implementation process related to PBN 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 PBN. 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

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C.4	RISKS RELATED TO ALTIMETER SETTING ERRORS DURING APV BARO-VNAV AND NON-PRECISION APPROACH OPERATIONS					Completed
	That, ICAO MID promotes the EUR OPS BULETIN at Appendix 3B on Risks related to altimeter setting errors during APV Baro-VNAV and non-precision approach operations and ensures the widespread dissemination of this bulletin among member States.	Raise awareness and set of recommendations to mitigate altimeter setting errors	SL	ICAO MID	2024	SL Ref: AN 8/4.1 – 24/095 3 June 2024
C.21/2	MID REGION AIR NAVIGATION STRATEGY, EDITION, FEBRUARY 2024					Completed
	That, the MID Region Air Navigation Strategy, Edition February 2024 (ICAO MID DOC 002), is endorsed and be published by the ICAO MID Office.	To harmonize the implementation within the Region	Revised version of MID Doc 002	ICAO MID	Feb 2024	ICAO MID DOC 002 posted at https://www.icao.int/MID/MIDANPIRG/Documents/eDocuments/MID%20Doc%20002%20-%20MID%20Air%20Navigation%20Strategy%20-%20Apr%202024.pdf
C.21/3	NATIONAL AIR NAVIGATION PLAN (NANP)					Ongoing
	That, the MID States with support of ICAO MID Office develop their National Air Navigation Plan (NANP) by end of December 2024.	Implementation of RANP within the MID Region	National Air Navigation Plans	MID States	Dec 2024	Kuwait ANP developed Jordan ANP ongoing Requests from Iran and Qatar
C.21/4	MID AIR NAVIGATION REPORT - 2023					Completed
	That, the MID Air Navigation Report-2023 is endorsed and be published by the ICAO MID Office.	Reflect the implementation Status of RANP within the MID Region	MID Air Navigation Report 2023	ICAO MID	March 2024	ANR 2023 posted at https://www.icao.int/MID/MIDANPIRG/Documents/Air%20Navigation%20Report/MID%20AN%20Report-2023%20rev.%20Apr%202024.pdf

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
C.21/6	WEBINAR ON PERFORMANCE-BASED AERODROME OPERATING MINIMA (PBN-AOM)					Completed
	That, a Webinar on the Performance-Based Aerodrome Operating Minima (PB-AOM) be organized in 2024.	To provide a deep understanding of the PBAOM and its concept of operations.	Webinar	ICAO	2024	(PPT/12 refer)
C.21/7	WORKSHOP ON PBN/GNSS					On-going
	<i>That, ICAO, jointly with ACAO organize a Workshop on PBN/GNSS in 2024.</i>	To provide a forum for sharing the current developments and future evolutions related to GNSS along with implementation of different GNSS elements/options and associated challenges.	Workshop	ACAO and ICAO	2024	Workshop on PBN/GNSS is postponed to 2025
C.21/8	PBN SID AND STAR CHARTING AD HOC WORKING GROUP					On-going
	<i>That a PBN SID and STAR Charting Ad Hoc Working Group,</i> <i>a) be established to develop guidance/Specimen of PBN SID and STAR Charts, in coordination with the AIM Sub Group.</i> <i>b) be composed of:</i> — <i>Chairpersons of the PBN SG and the AIM SG</i> — <i>Mr. Taha Mohamed Taha (Egypt)</i> — <i>Rohallah Salehi (Iran)</i> — <i>Mohammad Mahanpour (Iran)</i> — <i>Mr. Raed Ghazawi (Jordan)</i> — <i>Mr. Sulaiman Selmi (Oman)</i>	To develop guidance/Specimen of PBN SID and STAR Charts to promote harmonization and consistency in the publication of PBN charts	Guidance/Specimen of PBN SID and STAR Charts	<i>PBN SID and STAR Charting Ad Hoc Working Group</i>	2024	(WP/14 refer)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
	<ul style="list-style-type: none"> — Mr. Suwarn Raj Upadhyay (Oman) — Mrs. Pamela Erice (Qatar) — Mr. Muhammad Aljuhani (KSA) — Mr. Ayed Murfat (KSA) — Mr. Saqr Obaid Al Marashda (UAE) — Mr. Kedari Manthanwar (UAE) — ICAO Secretariat <p>c) presents its outcome to the PBN SG/9 and AIM SG/11 meetings.</p> <p>d) be dissolved upon the successful completion of its assigned tasks.</p>					
C.21/22	FREE ROUTE AIRSPACE (FRA) IMPLEMENTATION WORKSHOP					Completed
	<i>That, the ICAO MID Office organize Workshop in 2024 with support of IATA and concerned States and Stakeholder, to foster the implementation of FRA in the MID Region.</i>	Foster the implementation of FRA within the Region	FRA Workshop	ICAO MID	2024	Free Route Airspace Workshop conducted (Doha, Qatar, 30 September 2024)
C.21/26	NAV MON PLAN TEMPLATE					On going
	<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>	Consultation for the implementation methodology and criteria related to the regional Navigation MON.	Updated MON NAV plan template	States	2025	(WP/18 refer)
C.21/30	REVISED NOTAM TEMPLATE FOR GNSS INTERFERENCE					On going
	<i>That,</i> <i>a) ICAO and IATA in coordination with AIM SG Chairpersons to develop revised</i>	To provide States with a standard NOTAM template to be used for GNSS Interference	NOTAM template for GNSS RFI	ICAO and IATA	2024	(WP/16 refer)

No.	CONCLUSIONS AND DECISIONS	CONCERNS/ CHALLENGES (RATIONALE)	DELIVERABLE/ TO BE INITIATED BY		TARGET DATE	STATUS/REMARKS
	<i>NOTAM template for GNSS interference including jamming and spoofing considering the global and regional developments; by Q4 2024 and</i> <i>b) ICAO MID Office circulate the revised NOTAM Template for GNSS interference through State Letter for implementation by States.</i>	to facilitate operators in filtering and searching through the NOTAM on GNSS Interference				
C.21/27	GNSS RFI Mitigation					On going
	<i>That,</i> <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> <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>	Safety risk associated with GNSS interference	Revise MID RSA014	States	2025	(WP/16 refer)
D.21/33	MIDANPIRG REVISED STRUCTURE					On going
	<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	