



International Civil Aviation Organization

MIDANPIRG/22 & RASG-MID/12 Meetings

(Doha, Qatar, 4 – 8 May 2025)

Agenda Item 5.3: ANS (AIM, PBN, AGA-AOP, ATM-SAR, CNS and MET)

**MID REGION'S TRANSITION TO TRUE NORTH CHALLENGES, IMPLICATIONS,
AND THE WAY FORWARD**

(Presented by Saudi Arabia and United Arab Emirates, members of the ICAO True North Advisory Group (TRUE-AG))

SUMMARY

This paper presents the transition from Magnetic North to True North as an inevitable change that will impact multiple aspects of air navigation, including Performance-Based Navigation (PBN), aerodrome operations, charting, and airspace management. While ICAO has acknowledged this global shift, many states in the MID region remain uncertain about the necessary steps to take to prepare. During the PBN SG/9 meeting in December 2024, participants' feedback following a UAE presentation highlighted a significant knowledge gap, a lack of expertise, and the need for explicit guidance material from ICAO to support states in this transition. Revealed a significant knowledge gap, a lack of expertise, and a need for clear guidance material from ICAO to support States in this transition.

This working paper highlights the challenges associated with the transition, identifies key areas requiring attention, and proposes a structured approach for MID States to conduct their analysis, identify gaps, and estimate associated costs. The paper also calls for ICAO to develop and provide guidance material and capacity-building initiatives to support States in implementing this transition efficiently.

Action by the meeting is at paragraph 4

REFERENCE

- ICAO ANNEX 4 – AERONAUTICAL CHARTS
- ICAO ANNEX 11 – AIR TRAFFIC SERVICES
- ICAO Doc 8168 – PANS-OPS
- ICAO Doc 4444 – PANS-ATM
- ICAO STATE LETTER REF. SP 74/1-21/36 (2021)
- ICAO STATE LETTER REF.: AN 11/45.5-22/50 (IMPLEMENTATION OF TRUE NORTH TRANSITION) – AUGUST 2022

1. INTRODUCTION

1.1 The global aviation industry is preparing for the shift from Magnetic North to True North due to the continuous movement of the Earth's magnetic field. This shift will affect aviation

procedures, navigation charts, aerodrome operations, and regulatory frameworks.

1.2 During the PBN SG meeting held in December 2024, it was evident that many states in the MID region were not fully aware of the transition requirements. The lack of knowledge, expertise, and clear implementation plans indicates an urgent need for structured guidance and support from ICAO.

1.3 This paper outlines the challenges, required actions, and recommendations for states to effectively manage this transition while ensuring a seamless and cost-effective implementation.

2. DISCUSSION

2.1 Challenges Identified in the MID Region

2.1.1 Transitioning to True North requires a comprehensive review of existing air navigation systems, infrastructure, and operational procedures. The following challenges were identified among MID states:

- Lack of awareness and understanding of the operational implications of True North.
- Absence of national-level planning and transition roadmaps.
- Limited expertise in determining the impact on navigation charts, aerodrome operations, and procedure design.
- Uncertainty regarding cost implications and funding sources.
- Need for regulatory updates and coordination between ANSPs, regulators, and airspace users.

2.2 Proposed Approach for MID States

2.2.1 To ensure a smooth transition, it is recommended that MID states take the following steps:

- Conduct a National Impact Assessment: Identify affected areas such as PBN procedures, aerodrome markings, charting, and ATM systems.
- Gap Analysis and Cost Evaluation: Assess infrastructure and regulatory gaps and estimate transition costs.
- Capacity Building and Training: Develop expertise through workshops and technical training sessions.
- Stakeholder Coordination: Engage ANSPs, airlines, aerodrome operators, and military authorities in planning efforts.
- Develop a Transition Roadmap: Establish a phased approach with clear milestones and implementation timelines.

2.3 Proposed Approach for MID States

2.3.1 To facilitate a harmonized transition, ICAO is encouraged to:

- Develop comprehensive guidance material tailored to MID states.
- Organize workshops and training programs on True North's operational and regulatory aspects.
- Provide a platform for best practice sharing among States.
- Support cost analysis studies to assist states in financial planning.

3. ACTION BY THE MEETING

3.1 The transition from Magnetic North to True North is a significant undertaking that requires early planning and preparation by MID states. The lack of knowledge and expertise among many states highlights the need for ICAO's proactive involvement in providing guidance and capacity-building initiatives.

3.2 The meeting is invited to:

- a) note the information contained in this paper;
- b) urge MID states to initiate national impact assessments and establish transition roadmaps;
- c) encourage ICAO to develop dedicated guidance material and capacity-building programs;
- d) promote collaboration among states to share best practices and lessons learned;
- e) Consider establishing a regional task force with multidisciplinary expertise to oversee and coordinate the transition process effectively and report to the PBN SG.

- END -