



International Civil Aviation Organization

**Twelfth Meeting of the MIDANPIRG AIM Sub-Group
(AIM SG/12)**

(Virtual, 22–23 April 2026)

Agenda Item 5: MID Region AIM Database (MIDAD) Project

**REORIENTATION OF THE MIDAD INITIATIVE TOWARDS A REGIONAL SWIM-BASED
IMPLEMENTATION FRAMEWORK**

(Presented by the Secretariat)

SUMMARY

This paper presents a review of the MID Region AIM Database (MIDAD) Project, including its background, implementation status, and challenges. Based on the lack of progress in achieving the required preconditions for its implementation, the paper proposes to conclude the MIDAD Project in its current form and reorient regional efforts toward a SWIM-based approach for aeronautical information management.

Action by the meeting is at paragraph 3.

REFERENCES

- AIM SG/6 & AIM SG/8 Reports
- MIDANPIRG/19 Report
- DGCA-MID/4 & DGCA-MID/5 Reports

1. INTRODUCTION

1.1 The MID Region AIM Database (MIDAD) Project was established as a regional initiative to support the transition from Aeronautical Information Services (AIS) to Aeronautical Information Management (AIM), with the objective of enhancing data quality, availability, and interoperability across the MID Region.

1.2 A Memorandum of Agreement (MoA) was signed in May 2013 by several MID States, reflecting their commitment to the MIDAD Project.

1.3 The implementation of the MIDAD Project was structured in three phases:

- a) Phase A: Migration of MID States to the European AIS Database (EAD);
- b) Phase B: Establishment of the MIDAD Manager (governance, legal and financial framework); and

c) Phase C: Implementation of the MIDAD system and services.

1.4 The agreed implementation approach established a dependency whereby the initiation of Phase B would be contingent upon the successful migration of a minimum number of MID States to EAD.

2. DISCUSSION

Status of Implementation

2.1 The progress of Phase A (migration to EAD) has remained limited, with a number of States either still in planning stages, under consideration, or with no clear implementation plan.

2.2 Consequently, the prerequisite condition for initiating Phase B (establishment of the MIDAD Manager) has not been met.

2.3 The AIM SG/8 meeting noted the lack of sufficient progress and agreed to place the MIDAD Task Force on hold pending further developments.

Identified Challenges

2.4 The implementation of the MIDAD Project has been affected by several challenges, including:

- Financial constraints related to EAD participation and cost-recovery mechanisms;
- Limited technical readiness of some States;
- External constraints affecting some States;
- Lack of sufficient participation to reach the required implementation threshold.

2.5 These challenges have persisted over several years, with no significant change in the level of regional engagement.

Strategic Considerations

2.6 The MIDAD Project was initially based on a centralized database concept aligned with earlier AIM implementation approaches. However, global aviation developments have evolved toward service-oriented and interoperable information environments, particularly through System Wide Information Management (SWIM).

2.7 A SWIM-based approach enables distributed data management, real-time information exchange, and scalability, which better align with current and future operational requirements.

2.8 Maintaining focus on a model that has not progressed beyond its initial phase may limit the MID Region's ability to effectively advance its AIM and digital transformation objectives.

Way Forward

2.9 In light of the above, it is proposed to :

- Conclude the MIDAD Project in its current form;
- Discontinue the activities of the MIDAD Task Force;
- Reallocate regional efforts and resources toward the development of a SWIM-based framework for aeronautical information management.

2.10 It is emphasized that the proposed transition does not replace the objectives of the MIDAD Project, but rather incorporates and expands them within a SWIM-based framework. In particular, the aspects related to data quality, standardization, and regional coordination will remain essential components of the proposed approach.

2.11 This transition would support:

- Alignment with the ICAO Global Air Navigation Plan (GANP), particularly the SWIM thread within the ASBU framework;
- Enhanced interoperability and data exchange;
- Flexibility for States with varying levels of maturity;
- More efficient use of regional resources.

Proposal for a Regional SWIM Approach

2.12 In order to ensure a coordinated and practical transition, it is proposed to develop a MID Region SWIM approach aligned with the ICAO Global Air Navigation Plan (GANP), particularly the System-Wide Information Management (SWIM) thread within the ASBU framework, and consistent with ICAO provisions on information management (Doc 10199).

2.13 The proposed approach would support the implementation of SWIM as a cross-cutting enabler across multiple information domains, including aeronautical, meteorological and flight and flow information, in accordance with the GANP SWIM thread and its associated ASBU elements.

2.14 The regional SWIM approach would be based on the following principles:

- A service-oriented and distributed architecture, enabling States to publish and consume aeronautical information services;
- Progressive implementation aligned with States' readiness and existing infrastructure;
- Interoperability through the use of ICAO SWIM standards and information exchange models (e.g. AIXM, FIXM, WXXM);
- Leveraging existing national systems and investments, avoiding a one-size-fits-all centralized solution;
- Regional coordination to ensure harmonization, governance, and cost efficiency.

2.15 The development of the regional SWIM approach would include, inter alia:

- Definition of a MID regional SWIM concept of operations (CONOPS);
- Governance and institutional arrangements;
- Capacity-building and training needs;
- Phased MID regional SWIM implementation roadmap with clear milestones.

2.16 In order to progress this work, it is proposed to establish a dedicated regional SWIM Ad hoc working group composed of volunteer "Champion States", supported by the ICAO MID Office.

2.17 The SWIM Ad hoc working group would be tasked to:

- Develop a MID regional SWIM concept of operations and a detailed regional SWIM implementation approach and roadmap;
- Propose governance and coordination mechanisms;

- Present a consolidated proposal to the AIM SG, MIDANPIRG and DGCA-MID meetings for endorsement and decision.

Transition to a Regional SWIM Framework

2.18 In order to ensure continuity of regional efforts while addressing the limitations encountered in the MIDAD Project, it is proposed to transition toward a MID Regional SWIM Framework aligned with ICAO provisions and the GANP. This includes ensuring data quality, integrity, and compliance with ICAO Standards and Recommended Practices (SARPs), as well as supporting the transition toward structured digital data sets.

2.19 The proposed MID Regional SWIM Framework is not intended to introduce a centralized system, but rather to establish a coordinated environment where States implement interoperable information services while maintaining ownership of their data. The role of the Region is to provide governance, harmonization, and coordination to ensure interoperability and alignment with ICAO provisions.

2.20 The proposed framework is based on a distributed, service-oriented architecture whereby States retain ownership of their data and provide information through interoperable information services, in accordance with SWIM principles and ICAO PANS-IM (Doc 10199).

2.21 The MID Regional SWIM Framework would encompass the following main components:

- Governance: Establishment of a regional implementation framework, including defined roles, responsibilities and accountabilities of stakeholders, as well as appropriate coordination mechanisms, policies and processes to support harmonized SWIM implementation;
- Information: Use of standardized information exchange models and exchange schemas (e.g. AIXM, FIXM, WXXM), aligned with the ICAO Aeronautical Information Reference Model (AIRM), ensuring a common understanding of information and enabling semantic interoperability;
- Information Services: Implementation of interoperable information services within a service-oriented architecture, enabling the provision, discovery and use of ATM-related information, and supporting the transition from traditional product-based information exchange to service-based information sharing.

2.22 The implementation of the framework should follow a phased approach:

- Phase 1 (Foundation): Establishment of the SWIM Ad hoc working group, development of a regional CONOPS, and implementation roadmap;
- Phase 2 (Pilot): Implementation of initial information services by Champion States and validation of interoperability;
- Phase 3 (Expansion): Gradual extension to additional States and services, including potential regional capabilities such as service registries.

2.23 The implementation approach will include mechanisms to support States with limited technical readiness, including guidance material, capacity-building activities, and regional coordination support.

2.24 A group of volunteer Champion States should be identified to lead initial implementation activities, demonstrate benefits, and support other States in their transition.

2.25 The proposed approach ensures alignment with ICAO SWIM provisions, including the establishment of governance frameworks and interoperable information services, and enables the MID Region to transition toward a modern, digital, and interconnected ATM environment.

2.26 Based on the above, the meeting is invited to review and agree on the following Draft Decision:

DRAFT DECISION 12/X: REORIENTATION OF THE MIDAD INITIATIVE TOWARDS A REGIONAL SWIM-BASED IMPLEMENTATION FRAMEWORK

That,

- a) the MID Region AIM Database (MIDAD) Project be concluded and the MIDAD Task Force be dissolved;*
- b) a SWIM Task Force (SWIM TF) be established under the AIM Sub-Group (AIM SG) to support the coordinated implementation of System-Wide Information Management (SWIM) in the MID Region, in alignment with the ICAO Global Air Navigation Plan (GANP) and ICAO provisions;*
- c) the terms of reference of the SWIM TF be developed and agreed during its first meeting;*
- d) States support the SWIM TF through:
 - i. the designation of Focal Points to contribute to the work of the Task Force; and*
 - ii. the sharing of States' experience, challenges, and best practices related to SWIM implementation, data management, and interoperability.**

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) acknowledge the status and challenges associated with the MIDAD Project;
- b) agree to conclude the MIDAD Project;
- c) agree to discontinue the MIDAD Task Force;
- d) agree to establish a regional SWIM Task Force composed of Champion States, supported by the ICAO MID Office; and
- e) endorse the Draft Decision at paragraph 2.26.