



ICAO

International Civil Aviation Organization

**THE ELEVENTH MEETING OF SYSTEM WIDE
INFORMATION MANAGEMENT TASK FORCE
(SWIM TF/11)**

Bangkok, Thailand, 25 – 29 May 2026

- Agenda Item 4: Updates on progress and issues under the SWIM TF Task groups structure
- g) Coordination and promotion
 - Task 9: Monitoring of Panels' Work

IMP UPDATES

(Presented by Japan)

SUMMARY

This Information Paper provides an overview of the fourth meeting of the Information Management Panel (IMP/4), held at ICAO Headquarters in Montréal from 20 to 24 April 2026.

Discussions related to Aeronautical Information Management (AIM) are not covered in this paper.

1. INTRODUCTION

1.1 The fourth meeting of the Information Management Panel (IMP/4) was held at ICAO Headquarters in Montréal from 20 to 24 April 2026.

1.2 Proposed amendments to the *Procedures for Air Navigation Services – Information Management (PANS-IM, Doc 10199)* and the *Manual on SWIM Implementation (Doc 10203)* were discussed with a view to enhancing SWIM interoperability. In addition, an action plan aimed at improving global interoperability was developed, and the Panel's work programme (Job Card) was reviewed.

2. DISCUSSION

REVISIONS TO PANS-IM (DOC 10199) AND RELATED DOCUMENTS

2.1 Registry Interoperability and Information Service Overview Fields

2.1.1 The Services Working Group proposed several measures to facilitate the global discovery, understanding and use of SWIM information services. These measures aim to:

- a) Enable the consistent registration and search of information services across global SWIM registries;
- b) Improve transparency, reliability and interoperability by clarifying service design rationale and data usage conditions.

2.1.2 Based on these objectives, amendment proposals to PANS-IM (Doc 10199) and the Manual on SWIM Implementation (Doc 10203) were developed.

2.1.3 The proposed amendments include:

- a) Introduction of a standardized data model for the Information Service Overview, enabling machine-readable exchange and automated search across registries;
- b) Addition of metadata fields indicating the corresponding Information Service Definition (ISD) (ISD reference), as well as fields describing data usage limitations (e.g. redistribution and commercial use);
- c) Clarification and restructuring of existing elements related to service version management, lifecycle status (e.g. planned, operational, discontinued), and service quality (e.g. performance, reliability and security).

2.1.4 As the original proposal contained ambiguities regarding whether the ISD constitutes a Standard and Recommended Practice (SARP) or guidance material, further review was conducted, and a draft amendment to PANS-IM was agreed by the Panel.

2.2 SWIM Oversight and Data Governance Framework

2.2.1 The Governance Working Group presented proposed amendments to Doc 10203 introducing guidance on SWIM oversight and data governance.

2.2.2 The proposal includes the following elements:

SWIM Oversight

- a) No new oversight framework specific to SWIM is required;
- b) Oversight can be achieved by verifying compliance of information service providers with existing provisions in PANS-IM (Doc 10199) and Doc 10203;
- c) Supervisory authorities should enhance their technical expertise due to the technical nature of SWIM.

Data Governance Framework

- a) Recognition that SWIM data varies in sensitivity, including confidential, proprietary and personal data;
- b) Recommendation to establish national or regional data governance frameworks defining data classification and conditions for data sharing, taking into account differing legal systems.

2.2.3 This proposal was approved by the Panel.

2.3 Protection of Information

2.3.1 The Governance Working Group also proposed amendments to Doc 10203 to include guidance on the protection of information.

2.3.2 This includes the following:

- a) Alignment with new metadata elements related to information protection in the Information Service Overview;
- b) Addition of a new appendix (Appendix E: ICAO Guidance Material on Protection of Information).

2.3.3 The appendix clarifies the principle that usage terms and conditions “travel with the data,” meaning that restrictions defined by upstream providers should not be removed or weakened by downstream users (i.e. cascading terms and conditions). It also provides best practices for both data providers and users.

2.3.4 This proposal was also approved by the Panel.

ATM INFORMATION REFERENCE MODEL (AIRM)

2.4 The Architecture Working Group reported on progress related to the ATM Information Reference Model (AIRM), including the planned release of version 1.3.0 in 2026 (current approved version: 1.2.0).

2.5 AIRM version 1.3.0 includes:

- a) Updates supporting AIXM 5.1.1 and 5.2;
- b) Enhancements aligned with FIXM FF-ICE Release 1 (including vocabulary related to constraints, flight capabilities, service units and flight trajectories);
- c) Other technical enhancements.

2.6 Submission of AIRM 1.3.0 to the IMP for approval is planned for autumn 2026, and this approach was agreed by the Panel.

INFORMATION MANAGEMENT DEVELOPMENTS

2.7 The Services Working Group introduced the Global SWIM Registry Interoperability Concept, which proposes a method to improve interoperability among SWIM registries.

2.8 The concept aims to:

- a) Standardize service metadata;
- b) Enable metadata exchange between registries;
- c) Eliminate the need for users to search multiple registries individually.

2.9 It was also reported that no major revisions to existing SWIM guidance are currently envisaged.

2.10 In addition, updates were provided on the *SWIM Discovery Service (SDS) Specification* under development within the APAC SWIM Task Force. This specification:

- a) Operationalizes the interoperability concept;
- b) Defines a JSON schema and REST API aligned with PANS-IM (Doc 10199);
- c) Enables federated search across registries;
- d) Supports automated synchronization of service metadata;
- e) Promotes a decentralized service discovery architecture.

2.11 APAC and the FAA plan to conduct operational scenario development and testing in 2026.

2.12 Future work at the IMP level will continue in coordination between the Services and Architecture Working Groups.

FUTURE WORK

2.13 Several working and information papers were submitted addressing topics related to the Global SWIM environment, including:

- a) The need for global SWIM message routing rules;
- b) Potential implementation approaches.

2.14 Given the complexity of these issues—particularly the need to consider operational aspects across multiple domains and coexistence with existing systems such as AFTN/AMHS—IMP concluded that further work requires broader coordination.

2.15 The IMP therefore agreed to request that the Air Navigation Commission (ANC) establish a dedicated task force involving relevant panels.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters, as appropriate.
