



ICAO

*International Civil Aviation Organization***The Ninth Meeting of System Wide Information Management Task Force (SWIM TF/9)***Bangkok, Thailand, 14 – 17 May 2024*

Agenda Item 3: Outcomes of relevant meetings on SWIM-related matters

OUTCOMES OF THE FOURTEENTH MEETING OF THE ASIA/PACIFIC AIR TRAFFIC FLOW MANAGEMENT STEERING GROUP (ATFM/SG/14)

(Presented by Secretariat)

SUMMARY

This paper presents a brief update on outcomes from the fourteenth meeting of the Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/14) related to the SWIM.

1. INTRODUCTION

1.1 The Fourteenth Meeting of the Asia/Pacific Air Traffic Flow Management Steering Group (ATFM/SG/14) was held in Bangkok, Thailand from 22 to 26 April 2024.

1.2 The Asia-Pacific Cross-Border Multi-Nodal ATFM Collaboration (AMNAC), a regional initiative that has been ongoing since 2015, was setting the stage for cross-border ATFM in the region. This was being done under the concept of a *Distributed Multi-Nodal ATFM Network*. The concept, which underpins the Asia/Pacific Regional Framework for Collaborative ATFM, involves a network of *ATFM Nodes*. These nodes are responsible for demand-capacity balancing within their area of responsibility, all while being connected to the network's information exchange infrastructure. The ATFM operations in each node will be based on regionally agreed principles and high-level operating procedures, with local adaptations as necessary.

1.3 The ATFM/SG/14 meeting was also informed of the progress from the Technical Sub-Group of the AMNAC Core Team in developing and testing information exchange models, in collaboration with the Asia/Pacific SWIM Task Force (SWIM TF), to enable "ATFM-on-SWIM" operations in the region. An ATFM information exchange trial via SWIM over the Common aeronautical VPN (CRV) was conducted in late 2023 to illustrate how existing ATFM related information that are sent via AFTN can be converted into FIXM format and exchanged via SWIM established on CRV.. The successful conduct of trial highlighted some issues relating to the formalization of FIXM version to be used in the region. Moreover, the meeting was informed of the Technical Sub-Group has begun to explore the evolution of ATFM in an FF-ICE/TBO environment, considering the impending implementation of FF-ICE/R1 and experiences of AMNAC members that were involved with demonstration projects such as the *Multi-Regional TBO Demonstration*.

2. DISCUSSION

Current Situation

2.1 The APANPIRG/34 adopted FIXM version v4.2 with APAC extension in December 2023 after a nearly one-year formal recommendation-and-adoption process. During this period, the FIXM Change Control Board (CCB) also released FIXM Core v4.3.0 to support the FF-ICE/R1 requirements identified by the ICAO ATM Requirements and Performance Panel (ATMRPP).

2.2 During the ATFM/SG/14 meeting, it was agreed to establish a standard FIXM version for exchanging cross-border information between operational ATFM systems in the Asia/Pacific region. It was recognized that implementing a new system could be a time-consuming process, and changing the version during the implementation phase would only add complexity.

2.3 It is important to have a mutually agreed-upon version, but sometimes a change in version becomes necessary. This might happen when the current version could not support operational requirements or when more data fields need to be exchanged. In such cases, a process for version change is needed to provide a platform for ANSPs, who are implementing the capability, to discuss their concerns regarding the change.

Recommended FIXM Operating Version for Cross-Border ATFM

2.4 The ongoing ATFM-on-SWIM trial has revealed that many ANSPs are still working towards implementing the ATFM system to be SWIM capable. However, the ATFM data exchange in FIXM via SWIM has yet to be operationalized. In light of this, the ATFM/SG/14 agreed that FIXM v4.3 be formalized as the agreed version for Cross-Border ATFM operations in the Asia/Pacific region from Q3/2026.

2.5 One of the main reasons for suggesting FIXM v4.3 was that it was the version that could support the FF-ICE/R1 implementation, as recognized by the ICAO ATMRPP. Additionally, based on the initial assessment with operational users, this version was sufficient to support the operational needed for at least a mid-term timeframe.

2.6 Furthermore, the two-year period would provide ANSPs with sufficient time to transition the ATFM-on-SWIM trial into an operational environment and implement any necessary changes. This generous transition period would ensure a smooth and successful adoption of the new system, reassuring the ANSPs.

Recommended FIXM Version for the ATFM-on-SWIM Trial

2.7 The FIXM v4.1 with APAC Extension was chosen for the ATFM-on-SWIM trial from the beginning of the discussion. After significant effort was put into preparing for the trial, the ATFM/SG/14 agreed to use this version until Q2/2025. While recognizing the need to adapt to a newer version, the ATFM/SG/14 decided to revise the version used for the trial from FIXM v4.1 to FIXM v4.3 from Q2/2025 onwards to align with the timeline in paragraph 2.4.

Recommended Change Process for the Cross-Border FIXM Operating Version

2.8 The ATFM/SG/14 agreed to establish a change process for revising the common FIXM version to support the information exchange among operational ATFM systems and the ATFM-on-SWIM trial. While a change process is required, it should not be too complex nor administrative intensive to avoid adding unnecessary steps for operational implementation. Moving forward, the ATFM/SG/14 agreed to further develop this process, starting with the preliminary step that States or Collaboration Bodies propose changes to ATFM/SG, for further coordination with SWIM TF, including:

- the change(s) to be endorsed;
- the reason(s) for the change(s); and

- the time of the change to be effective.

Conclusion

2.9 The ATFM-on-SWIM trial has helped identify potential issues in establishing the operation. During the trial, it was highlighted that a common FIXM version was necessary to facilitate early cross-border ATFM system-to-system data exchanges. To ensure effective governance and system management, it was also necessary to establish a change process that could address any changes required in the common FIXM version used for the ATFM-on-SWIM trial and operation in the future.

2.10 Therefore, the ATFM/SG/14 agreed that FIXM v4.3 should be formalized as an agreed-upon version to support information exchange between operational ATFM systems. Furthermore, a change process should be further developed in coordination with SWIM TF.

2.11 It is expected that the Draft Conclusion ATFM/SG/14-01 below would assist States to transition ATFM-on-SWIM trial into an operational environment.

Draft Conclusion ATFM/SG/14-01 – Asia/Pacific Regional FIXM 4.3		
What:	The FIXM Core 4.3.0 released by FIXM CCB be adopted as an agreed-upon version (referred to as “FIXM 4.3” in Asia/Pacific region) from Q3 2026 to support information exchange between cross-border operational ATFM systems in SWIM environment.	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic <input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why:	To provide the information exchange model necessary to support cross-border ATFM and ATFM/A-CDM integration in the Asia/Pacific Region, in order to support the implementation of performance objectives of the Asia/Pacific Regional Framework for Collaborative ATFM	Follow-up: <input type="checkbox"/> Required from States
When:	26-Apr-24	Status: Draft to be adopted by Subgroup
Who:	<input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input checked="" type="checkbox"/> Other: SWIM TF and ATFM/SG	

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- note the information contained in this paper;
- discuss on setting the FIXM v4.3 to be an agreed version for the cross-border ATFM-related information exchange;
- discuss on change process to be established for revision of a commonly agreed FIXM version for the cross-border ATFM-related information exchange;
- support the Draft Conclusion in para 2.11;and
- discuss any relevant matter as appropriate.