



ICAO

International Civil Aviation Organization

**Fourteenth Meeting of the Air Traffic Management Sub-Group (ATM/SG/14) of APANPIRG**

Bangkok, Thailand, 3 – 7 August 2026

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**Agenda Item 7: AOP, AIM, MET, SAR**

**AIS–AIM IMPLEMENTATION TASK FORCE (AAITF/21) OUTCOMES**

(Presented by the Secretariat)

**SUMMARY**

This paper presents the outcomes of the Twenty-First Meeting of the AIS-AIM Implementation Task Force (AAITF/21) that are relevant to air traffic management. Particular attention is given to the work of the APAC Five-Letter Name Code (5LNC) Ad Hoc Group, the utilization of Five-Alpha Numeric Name Codes (5ANNC), the management and resolution of duplicated 5LNCs through ICARD, and the operational impact of duplicated 5LNCs on CPDLC route uplink. The paper also presents other AAITF/21 outcomes relevant to ATM operations, including NOTAM quality, timely information exchange during contingency situations, implementation of regional AIM capabilities, and the continuing development of SWIM-enabled aeronautical information services.

**1. INTRODUCTION**

1.1 The Twenty-First Meeting of the ICAO Aeronautical Information Services – Aeronautical Information Management Implementation Task Force (AAITF/21) was held in Bangkok, Thailand, from 19 to 22 May 2026. The task force meeting was attended by 83 participants representing 20 States, two Special Administrative Regions of China, three international organizations and ICAO. A total of 17 Working Papers, 11 Information Papers, two presentations and two films were considered by the task force.

1.2 AAITF/21 considered a broad range of matters relating to AIS, AIM, digital aeronautical information, NOTAM management, ICARD, Five-Letter Name Codes (5LNC), Five-Alpha Numeric Name Codes (5ANNC), SWIM information services and regional AIM planning. A number of these matters have direct implications for ATM operations, including aircraft navigation database integrity, CPDLC route uplink, flight crew and controller situational awareness, contingency coordination, FF-ICE implementation and the progressive transition towards Trajectory-Based Operations (TBO).

1.3 This paper therefore focuses on those AAITF/21 outcomes that require the attention of ATM/SG or that may affect the safe and efficient provision of air traffic services in the APAC region.

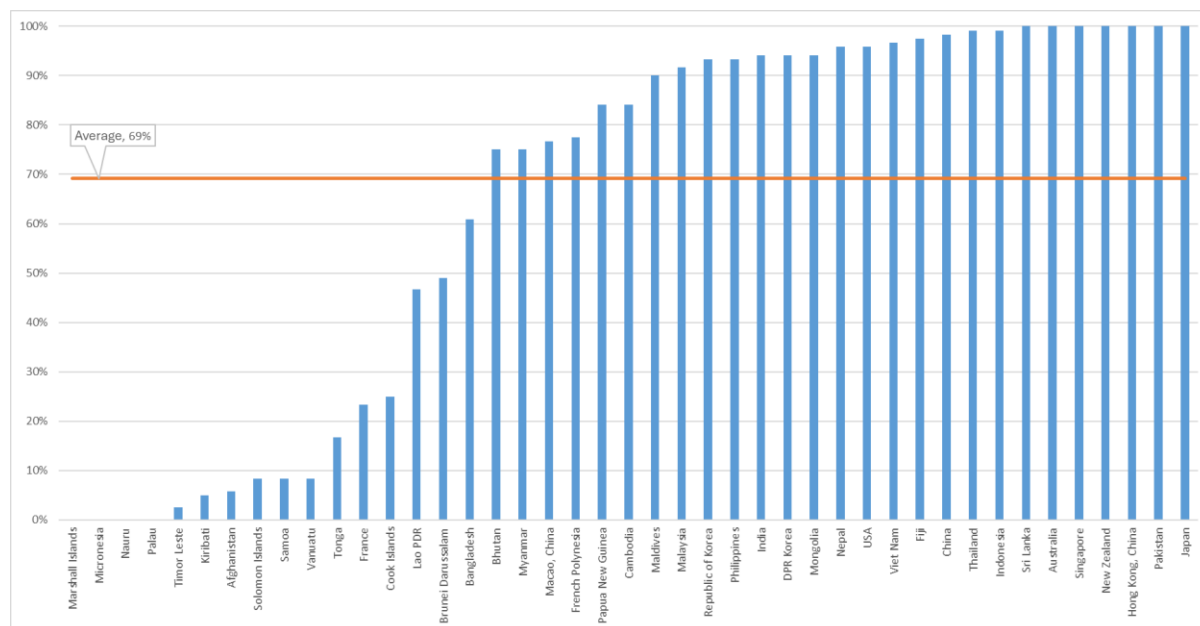
**2. DISCUSSION**

Regional implementation of AIM capabilities

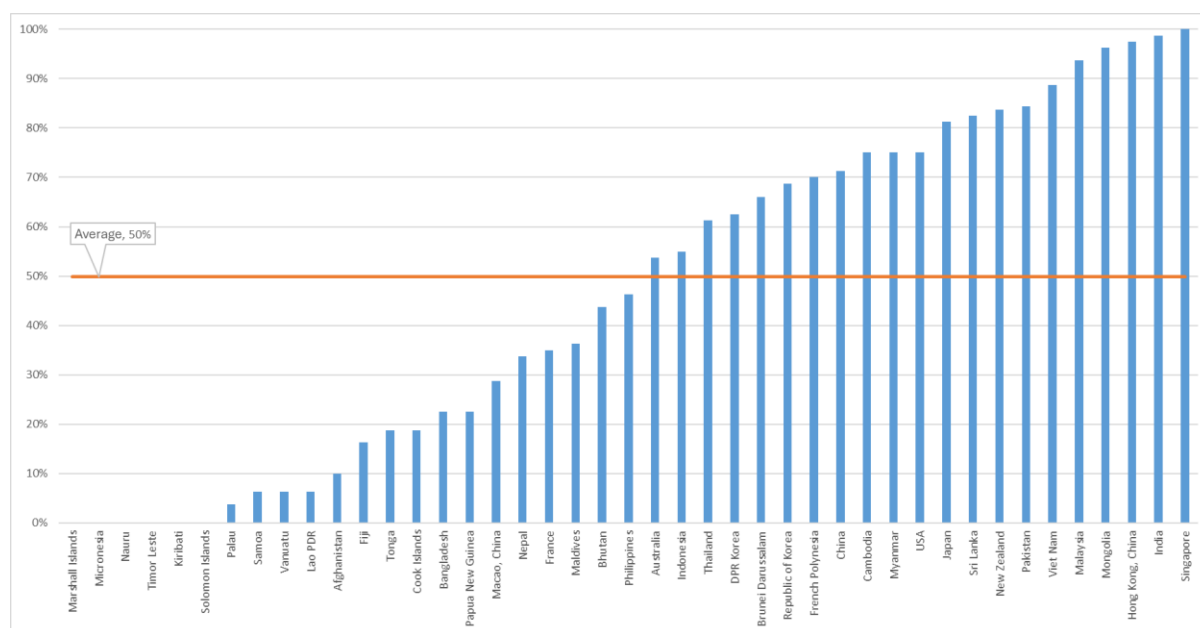
2.1 AAITF/21 reviewed the regional implementation status of the performance expectations contained in the *Asia/Pacific Regional Plan for Collaborative AIM*. Twenty-one Administrations provided implementation information in 2026. The task force noted that regional implementation had

improved compared with the previous reporting period, but that progress remained slow, particularly for requirements that had already been applicable for a considerable period.

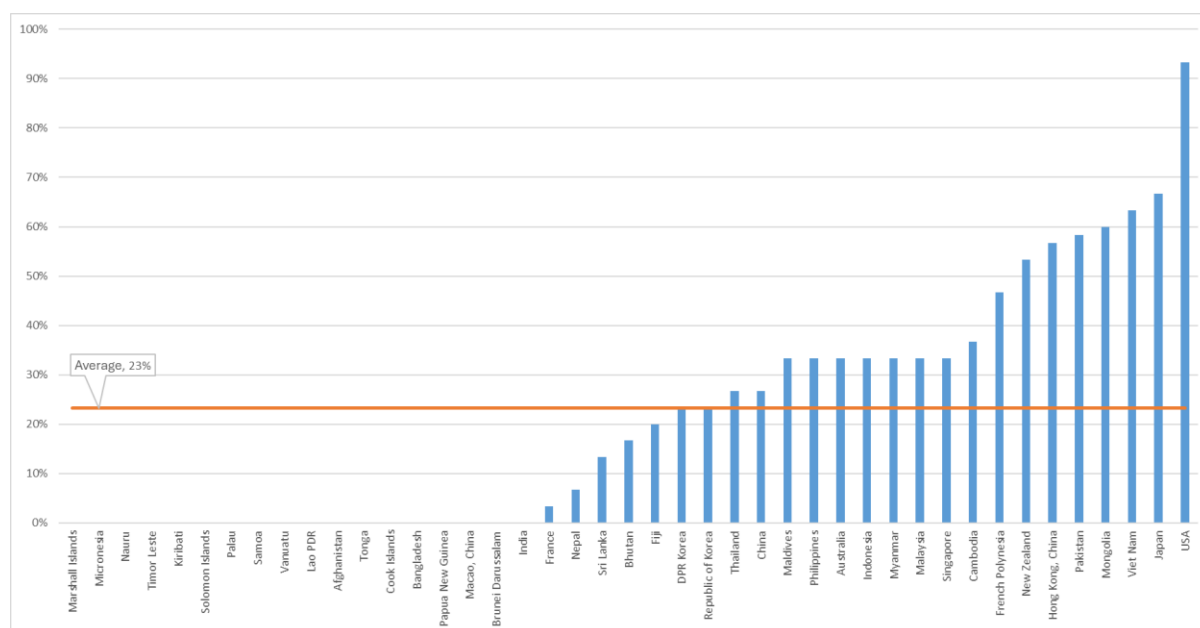
2.2 Regional implementation was reported to be approximately 69 per cent for Phase I, 50 per cent for Phase II and 23 per cent for Phase III, as illustrated in **Figure 1** to **3**. Only seven States or Administrations had reported completion of Phase I, while only one State had reported completion of Phase II. The task force expressed concern regarding the continuing slow progress, particularly because several Phase I and Phase II elements were based on long-standing ICAO Standards and Recommended Practices.



**Figure 1: Regional Phase I Implementation Progress**



**Figure 2: Regional Phase II Implementation Progress**



**Figure 3: Regional Phase III Implementation Progress**

2.3 From an ATM perspective, the implementation of fundamental AIM capabilities is an important prerequisite for the reliable provision of aeronautical information to air traffic controllers, aircraft operators, flight planning systems and airborne navigation systems. Delayed implementation may also affect regional progress towards SWIM, FF-ICE and TBO, all of which depend on accurate, timely and machine-readable aeronautical information.

2.4 AAITF/21 recalled that States/Administrations were required to provide annual implementation status information through the digital reporting mechanism established under **Conclusion ATM/SG/13-3**. States were encouraged to continue updating their implementation status and to progress outstanding Phase I and Phase II elements without waiting for the revised implementation date of Phase III.

#### Implementation of AIS Quality Management System (QMS)

2.5 AAITF/21 reviewed the implementation status of AIS Quality Management Systems (QMS) in Brunei Darussalam and Maldives. Based on the information provided by Maldives and the Secretariat's assessment, the Secretariat confirmed that the relevant ICAO provisions had been satisfactorily implemented. Accordingly, AAITF/21 and the Secretariat propose that ATM/SG agree to recommend to APANPIRG that the Deficiency assigned to Maldives be considered resolved and subsequently removed from the APANPIRG Deficiency List.

#### Revision of the Phase III implementation timeline

2.6 AAITF/21 considered the implementation timeline for Phase III of the *Asia/Pacific Regional Plan for Collaborative AIM*. The task force noted the continuing development of ICAO global provisions for AIM digitalization, including proposed amendments to Annex 15, PANS-AIM and related guidance material, as well as the work of the Information Management Panel and the planned migration of regional planning material to the Asia/Pacific Air Navigation Plan Volume III.

2.7 The task force agreed that the implementation timeline for Phase III should be revised to 20 November 2031 in order to align the Regional Plan with global developments and the anticipated implementation of future digital AIM services. AAITF/21 adopted **Conclusion AAITF/21-2**, which

approved the revised timeline and the corresponding amendment to the *Asia/Pacific Regional Plan for Collaborative AIM*.

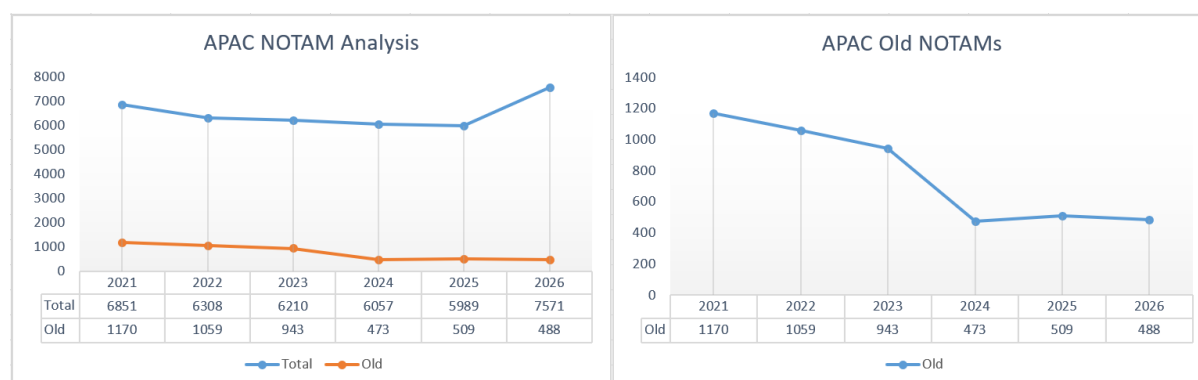
### ***Conclusion AAITF/21-2: Revision of the Asia/Pacific Plan for Collaborative AIM Phase III Timeline***

*That, the amendment to the Asia/Pacific Plan for Collaborative AIM at Appendix D to the Report be adopted, including the revision of the implementation timeline for Phase III of the Performance Improvement Plan to 20 November 2031, and that the amended Plan be posted on the ICAO APAC Office eDocuments webpage.*

2.8 The task force emphasized that the revised date was not intended to reduce the importance or urgency of implementation. States were encouraged to complete Phase III elements at the earliest practicable opportunity. From an ATM perspective, early implementation remains desirable because digital aeronautical information services provide important foundations for FF-ICE, system-wide information exchange, automated flight planning and trajectory management.

#### **NOTAM proliferation and operational implications**

2.9 AAITF/21 reviewed an analysis of NOTAM proliferation in the APAC region. As of 1 May 2026, 7,571 active NOTAMs were recorded, of which approximately 488, or six per cent, were more than three months old. The total number of active NOTAMs had increased by approximately 26 per cent compared with the previous analysis, although the number of old NOTAMs had decreased slightly. (Figure 4)



**Figure 4: Regional NOTAM analysis**

2.10 The task force noted that 15 States/Administrations had achieved zero old NOTAMs. However, concerns remained regarding the continued use of long-duration NOTAMs and the repetitive replacement of NOTAMs in circumstances where the information should have been incorporated into the AIP or an AIP Supplement. Such practices could make it difficult for aircraft operators, dispatchers, flight crews and air traffic controllers to identify operationally significant information among a large volume of less relevant or outdated information.

2.11 The task force was reminded that the timely incorporation of permanent and long-duration information into appropriate aeronautical information products was required by PANS-AIM. Continued non-compliance could result in the identification of an APANPIRG air navigation deficiency. States/Administrations were encouraged to take immediate action to improve NOTAM quality and ensure compliance with ICAO provisions.

2.12 From an ATM perspective, excessive or poorly managed NOTAM information may affect pre-flight planning, controller situational awareness, flight crew workload and operational decision-making. Improvements in NOTAM quality are therefore relevant not only to AIS but also to the safe and efficient conduct of ATM operations.

#### Timely sharing of NOTAMs during contingency situations

2.13 AAITF/21 considered the importance of timely and reliable dissemination of NOTAMs during contingency situations, including natural disasters, military conflicts and other events affecting the availability or use of airspace. Recent operational experience had demonstrated that the effects of such events could extend beyond the directly affected FIR and could have significant implications for adjacent States and airspace users.

2.14 The task force noted that delays in the dissemination of operational information and NOTAMs had occurred during some rapidly developing events. Limitations in publicly accessible NOTAM sources and the availability of AIS focal points outside normal working hours had also affected the timely exchange of information.

2.15 States/Administrations were therefore encouraged to ensure that AIS contacts contained in the Asia/Pacific ATM Point of Contact List remained available during emergencies. The task force further encouraged States to provide operational contact details for International NOTAM Offices, duty supervisors or other units operating on a 24-hour basis. Such arrangements would support communication between ATM and AIS authorities and could also facilitate the activation of regional Crisis Coordination Team arrangements where necessary.

2.16 The timely sharing of aeronautical information during contingency situations is closely related to the work of ATM/SG on regional ATM contingency planning. States should ensure that their ATM, AIS and Crisis Coordination Team points of contact are kept current and that appropriate arrangements are in place to support urgent operational coordination outside normal office hours.

#### Outcomes of the APAC 5LNC Ad Hoc Group

2.17 AAITF/21 reviewed the progress of the APAC 5LNC Ad Hoc Group, which had been established following AAITF/20 to address the continuing shortage and duplication of 5LNCs in the region. The Ad Hoc Group had conducted five virtual meetings and had examined the utilization of 5ANNC, sound-like proximity criteria, safety considerations, duplicate resolution and future ICARD developments.

2.18 The task force noted that the release of previously reserved or unused block codes had resulted in 2,683 additional 5LNCs becoming available. While this represented a significant short-term improvement, it was recognized that the measure would not provide a sustainable long-term solution to the increasing demand for waypoint identifiers.

2.19 The Ad Hoc Group had also reviewed the difference between the 300 NM sound-like proximity criterion used in parts of the EUR/NAT region and the 500 NM criterion currently applied in the APAC region. AAITF/21 agreed that further safety studies and operational assessments would be necessary before any reduction of the APAC criterion could be considered. The matter would remain on the work programme of the Ad Hoc Group.

2.20 Relevant IFATCA material concerning similar and sound-like waypoint names was also reviewed. The task force recognized that similar identifiers could result in misunderstandings in radiotelephony communication, incorrect waypoint selection and increased controller or flight crew workload. Continued consideration of human factors and operational safety would therefore be necessary in the development of future regional arrangements.

2.21 AAITF/21 was also informed that ICAO had established a Secretariat Exploratory Group to support the future development of an ICARD Handbook. Representation from the APAC 5LNC Ad Hoc Group would assist in ensuring that regional experience and operational concerns were reflected in the future global guidance.

#### Utilization of 5ANNC

2.22 AAITF/21 considered the possible use of 5ANNC as a longer-term mitigation for the continuing shortage of available 5LNCs. The task force discussed the use of 5ANNC for new waypoint allocations and as possible replacements for existing 5LNCs, including their potential use for non-critical waypoints and predictable sequencing procedures.

2.23 AAITF/21 adopted **Conclusion AAITF/21-1**, which encouraged States/Administrations to consider the use of 5ANNC either as replacements for existing 5LNCs or as new allocations. States were also encouraged to ensure that national conventions and rules for the application of 5ANNC were standardized and documented, and to share implementation experience and best practices, including any use outside instrument flight procedures.

#### ***Conclusion AAITF/21-1: Utilization of 5ANNC***

*That, noting the identified exhaustion of 5LNC and the consideration of 5ANNC within AAITF as a mitigation measure, and recognizing the provisions of Doc 8168 (PANS-OPS) on aircraft identification and addressing, States/Administrations are:*

- 1. encouraged to consider the use of 5ANNC, either as a replacement for existing 5LNC or as a new allocation, in order to address the exhaustion of 5LNC;*
- 2. ensure the convention and the rules of application of 5ANNC are standardized and documented within the State; and*
- 3. invited to share their experience and best practices regarding the implementation of 5ANNC including any use of 5ANNC outside of instrument flight procedures.*

2.24 The task force also discussed the need for further consultation with relevant ATM bodies concerning the use of 5ANNC in predictable sequencing procedures. Such consultation would need to take account of Annex 11, Doc 8168 and any related operational or human-factors considerations.

2.25 As the use of waypoint identifiers affects flight procedure design, ATS route structures, radiotelephony, flight planning and aircraft navigation databases, ATM authorities should be involved in the development of national arrangements for 5ANNC implementation.

#### ICARD usage and duplicate 5LNC resolution

2.26 AAITF/21 reviewed the regional status of ICARD utilization and the global project to eliminate duplicated 5LNCs. The task force was reminded that ICARD was the sole source for the reservation and allocation of 5LNCs used to identify significant points. States/Administrations were requested to ensure that at least one, and preferably two, personnel responsible for waypoint allocation were registered as ICARD 5LNC planners.

2.27 Twenty States/Administrations provided updated information on duplicated 5LNCs in 2026. The task force acknowledged the efforts of States that had resolved a significant number of duplicate identifiers and those that continued to demonstrate substantial progress in their national reviews.

2.28 The task force noted that a total of 833 unused 5LNCs had been returned to the ICARD system as a result of national audits and deletion activities. Australia reported that a comprehensive national review had identified more than 600 unused codes, demonstrating the value of systematic audits in increasing the availability of identifiers for future use.

2.29 States/Administrations were requested to provide the ICAO APAC Office with a complete list of the 5LNCs published in their AIPs by 28 February 2027. This would enable the APAC Office to identify outstanding duplications, verify consistency between national publications and ICARD records, and support the resolution of newly identified conflicts.

2.30 States were also encouraged to review their existing ICARD allocations and submit deletion requests for identifiers that were no longer required. Where a State sought to retain a duplicated 5LNC, substantiating operational evidence should be provided in accordance with the applicable duplicate resolution rules.

2.31 The task force was advised that the volume of ICARD-related processing had increased considerably. States were therefore reminded to submit requests for new, amended or deleted identifiers sufficiently in advance, taking into account the time required for ICAO review and the possibility that an application might need to be revised.

2.32 Although ICARD is administered primarily through AIS channels, the allocation, amendment or deletion of waypoint identifiers can directly affect ATS routes, instrument flight procedures, flight planning systems and aircraft navigation databases. Close national coordination between AIS, ATM, procedure design organizations and airspace users is therefore essential.

#### CPDLC route uplink issues caused by duplicate 5LNCs

2.33 AAITF/21 reviewed information provided on the work of the North Atlantic CPDLC Route Clearance Project Team concerning CPDLC route uplink issues associated with duplicated 5LNCs. The matter had also been discussed by the Sixteenth Meeting of the FANS Interoperability Team – Asia (FIT-Asia/16), reflecting its relevance to data link operations and regional operational monitoring. The work examined operational problems involving route discontinuities, unloadable routes and duplicate fixes, as well as possible implications for future operational concepts such as FF-ICE and TBO.

2.34 The task force was informed that duplicated waypoint identifiers had resulted in incorrect route loading during the processing of CPDLC UM74 and UM79 messages. In certain aircraft systems, proximity-based Flight Management System logic could select an unintended waypoint having the same identifier, resulting in an incorrect modification to the active route or the creation of a route discontinuity. Flight crew intervention could then be required to identify and correct the discrepancy before accepting or executing the clearance.

2.35 AAITF/21 noted that these issues were not limited to duplicated identifiers located close to each other. Duplicate 5LNCs separated by more than 1,000 NM could still affect the correct loading of route clearances, depending on the logic applied by the aircraft system and the structure of the uplinked route.

2.36 An incorrectly loaded route could result in an aircraft deviating from the intended ATC clearance if the discrepancy was not detected by the flight crew. Even where the error was identified, additional coordination with ATC might be necessary, increasing controller and flight crew workload and potentially delaying the execution of the clearance.

2.37 The task force also noted that duplicated waypoint identifiers could affect the future automation of trajectory exchange. FF-ICE and TBO depend on consistent interpretation of route and

trajectory information by aircraft systems, air traffic management systems and flight planning systems. Continued duplication of waypoint identifiers could therefore reduce confidence in automated route processing and create inconsistencies between ground and airborne representations of a trajectory.

2.38 Potential mitigation measures included improvements to CPDLC route uplink processing and closer coordination among ANSPs, aircraft operators, avionics manufacturers and flight management system suppliers. However, AAITF/21 recognized that the most effective long-term mitigation was the elimination of duplicated 5LNCs at source.

2.39 The EUR/NAT and APAC Regional Offices had commenced coordination concerning duplicate identifiers involving the two regions. States/Administrations were strongly encouraged to accelerate the resolution of long-standing duplicated 5LNCs in view of their demonstrated operational and potential safety impacts.

2.40 Given the direct implications for data link operations, route conformance and trajectory management, ATM/SG may wish to support continued coordination between the APAC 5LNC Ad Hoc Group, data link monitoring groups, aircraft operators and relevant ICAO panels.

#### Global AIM and SWIM developments relevant to ATM

2.41 AAITF/21 received information on the outcomes of the fourth meeting of the ICAO Information Management Panel, including developments relating to AIM digitalization, SWIM information services, digital data sets, Digital NOTAM and the future Digital Operational Reporting Information Service.

2.42 The task force noted continuing work on amendments to Annex 4, Annex 15, PANS-AIM and PANS-IM, as well as the development of ICAO Doc 8126 Part IV to support the implementation of aeronautical information services through SWIM. Developments relating to information service definition templates, registry interoperability, terminology harmonization and service overview documentation were also presented.

2.43 ICAO advised that the transition from traditional product-based AIS to digital AIM and SWIM-enabled information services would be gradual and would require effective change management, stakeholder engagement, infrastructure investment and implementation support. During the transition period, States and industry stakeholders might need to maintain both conventional and digital information products.

2.44 From an ATM perspective, these developments are particularly relevant to FF-ICE and TBO. The exchange of consistent, machine-readable aeronautical information is necessary to support automated trajectory calculation, flight planning, route negotiation and the synchronization of information between aircraft operators and ATM systems.

2.45 The task force also noted guidance concerning the publication of procedures relating to GNSS and data link disruptions. Procedures describing actions to be taken by pilots during a disruption directly affecting the conduct of flight would normally be published in AIP ENR 1.1. Where additional information was required concerning reporting mechanisms, post-event notification or coordination channels, a reference could be included in ENR 1.14.

#### APAC Common SWIM Information Services

2.46 AAITF/21 reviewed guidance developed by the SWIM Task Force to assist APANPIRG subsidiary bodies in updating the APAC Common SWIM Information Services document. The task force noted that the guidance was intended to promote consistent development of information services across the different operational domains and to support future regional interoperability.

2.47 The task force was informed of continuing work by the AAITF Ad Hoc Group on APAC Common SWIM Aeronautical Information Services. The initial set of aeronautical information services had already been considered by AAITF, ATM/SG and the SWIM Task Force and had been endorsed by APANPIRG/36. Further work was being undertaken on aerodrome-related information services, including the Aerodrome Feature Service and the Runway Surface Condition Report Service.

2.48 The task force supported the continuation of detailed discussions within the Ad Hoc Group and the coordination of its outcomes with the SWIM Task Force and other relevant subsidiary bodies. It was also agreed that the wording and details of the Digital NOTAM Distribution Service would be updated to align with the anticipated DORIS implementation timeline.

2.49 The APAC Common SWIM Information Services catalogue is intended to assist States in prioritizing services for progressive regional implementation. Continued ATM participation is important to ensure that aeronautical information services are developed in accordance with operational requirements and support future ATM applications.

#### National digital AIM and SWIM implementation developments

2.50 AAITF/21 received several papers describing national digital AIM and SWIM implementation initiatives. China presented the trial operation of an AIP data set based on AIXM 5.1.1. Japan presented its provision of aeronautical information services through SWIM, which commenced on 3 March 2026, and highlighted the importance of governance, service documentation and stakeholder coordination.

2.51 Indonesia presented the development of an Automated Aeronautical Data Processing System, while Malaysia reported on the upgrading of the Malaysian Aeronautical Information Management System. Both systems were intended to support digital data processing, Digital NOTAM, SWIM interoperability and future FF-ICE-related functions.

2.52 Hong Kong, China presented its planned implementation of Digital NOTAM and AIXM 5.1, while the Philippines reported progress in the transition from AIS to AIM, including preparations for a new AIXM-based system and future SWIM-enabled information exchange.

2.53 These national initiatives demonstrate continuing regional progress towards a data-centric information environment. They also provide opportunities for States to share experience concerning governance, system architecture, user requirements, data quality, service definition and operational transition.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) support the implementation of Conclusion AAITF/21-1 on the utilization of Five-Alpha Numeric Name Codes (5ANNC) and Conclusion AAITF/21-2 on the revised implementation timeline for Phase III of the *Asia/Pacific Regional Plan for Collaborative AIM*;
- c) encourage States/Administrations to continue the implementation of regional AIM capabilities, improve aeronautical information quality, and support the transition towards digital AIM and SWIM-enabled information services; and
- d) discuss any relevant matters as appropriate.

— END —