International Civil Aviation Organization

ICAO

Tenth Meeting of the ICAO Asia/Pacific Search and Rescue Work Group (APSAR/WG/10)

Siem Reap, Cambodia, 27 – 30 May 2025

Agenda Item 2: Review Outcomes of Related Meetings

OUTCOMES OF THE APAC COMMON SWIM AERONAUTICAL INFORMATION SERVICES AD HOC GROUP

(Presented by APAC Common SWIM Aeronautical Information Services
Ad Hoc Group)

SUMMARY

This paper presents the outcomes of the discussions held by the APAC Common SWIM Aeronautical Information Services Ad Hoc Group. Experts from several States and international organisations, including IATA, IFAIMA, and ICAO, actively participated. Additionally, India contributed an aerodrome expert through the Aerodrome Operations and Planning Sub-Group (AOP/SG). The group convened five meetings, during which it reached consensus on an initial set of services. The group requests the APSAR/WG to further discuss the message sets related to Search and Rescue.

1.   INTRODUCTION

1.1   At the Nineteenth Meeting of the ICAO Aeronautical Information Services – Aeronautical Information Management Implementation Task Force (AAITF/19), two Working Papers (WPs) (WP/23 by SWIM TF and WP/24 by IFAIMA) on the APAC Common SWIM Information Services were presented. Realising a need for further discussion, the meeting agreed to form an Ad Hoc group to discuss both technical and operational aspect of this subject.

> *Decision AAITF/19-3: Establish APAC Common SWIM Aeronautical Information Services Ad hoc Group*

1.2   Subject matter experts from various States, Administrations, and International Organisations were nominated to the ad hoc group, including representatives from Australia, Indonesia, Japan, Singapore, Thailand, the United States, IATA, IFAIMA, and ICAO. Additionally, as the discussions included aerodrome-related information, an expert from India was nominated by the Aerodrome Operations and Planning Sub-Group (AOP/SG) to contribute to the group's work.

1.3   The Ad Hoc Group convened five meetings to review and discuss the message sets proposed by the SWIM/TF. As a result of these discussions, the group reached a consensus on the initial set of APAC Common SWIM Aeronautical Information Services.

2.   DISCUSSION

Common Regional Version of AIXM

2.1   The Ad Hoc Group meetings discussed and reached consensus on the version of AIXM to be adopted for common use within the APAC region. While AIXM 5.2 introduces several enhancements, it was noted that many current implementations remain based on AIXM 5.1.1, which was published in 2016. AIXM 5.1.1 is fully compatible with AIXM 5.1 and included minor corrections and improvements. Therefore, the meeting agreed to adopt AIXM 5.1.1 as the common regional version.

The Initial Set of APAC Common SWIM Aeronautical Information Services

2.2   The Ad Hoc Group discussed the seven message sets proposed by the SWIM/TF, focusing on the necessity of each message, its content, and the message exchange patterns. As a result of these discussions, the group reached the conclusion to propose to the SWIM/TF the changes highlighted in yellow below, covering six of the message sets, excluding Search and Rescue (SAR). (**Figure 1**)

Business functionality of the service	Brief description of the service	Type of information to be exchanged	Information exchange model / Message type	Message exchange pattern	Recommended service in initial APAC Common SWIM IS (1) / (2) / (3)
APAC Common SWIM Aeronautical Information Services					
Airspace management service	Exchanges of airspace status information between ASM Support System and Air Traffic Control (ATC) System. The sharing of airspace availability and airspace structure in real-time will contribute to a more efficient execution of the flight as information impacting the trajectory will be exchanged.	~~Airspace availability~~ Availability or activation/deactivation or temporarily change of airspace, restricted area, danger area, search and rescue regions	AIXM	Pub/Sub or Req/Reply	2
Airspace feature service	Provides the characteristics of the three-dimensional airspace, described as horizontal projection with vertical limits, and their relevance to air traffic.	FIR/UIR boundaries, waypoints, enroute ATS routes, SIDs and STARs, navaids, procedures, and other airspace not limited to restricted area, prohibited area, danger area, search and rescue regions (Remarks - Other data published in the AIP may be included)	AIXM	Pub/Sub or Req Reply	2
Aerodrome feature service	Provides current and/or planned airport layout features, such as aerodrome mapping data, runway, taxiway, passenger facilities.	Runways, movement areas, aerodrome services, navaids, instrument landing systems, Aerodrome location, communication facilities (frequencies)	AIXM	Pub/Sub or Req/Reply	2
Runway Condition Report service	Provides runway surface conditions and contaminants (least to most slippery) that are directly correlated to aircraft take-off and landing performance.	Global Reporting Format (GRF) for runway surface conditions	AIXM	Pub/Sub or Req/Reply	2
Digital NOTAM distribution service	Provides aeronautical information in accordance with the Digital NOTAM Specification, such as runway closure.	Digital NOTAM (e.g. Special activity airspace (SAA) NOTAMs, or other types of NOTAMs)	AIXM	Pub/Sub or Req/Reply	2
ATIS distribution service	Provides continuous and automated broadcast of recorded aeronautical information in airport and terminal areas.	Current weather conditions, runway in use, available approaches, and other data relevant to arriving and departing aircraft, specific ATC procedures, and any airport construction activity that could affect taxi planning	TBD	Pub/Sub	~~2~~ 3

Figure 1: The Initial Set of APAC Common SWIM AIS Proposed by the Ad Hoc Group

Search and Rescue Services

2.3   The Ad Hoc Group discussed and agreed that the implementation of SAR Services should be considered in a future phase, as the information exchange model and message types are yet to be defined and are currently marked as 'TBD'. The Ad Hoc Group also recognised that SAR Services should be brought to the attention of the APSAR/WG for further discussion, if deemed necessary. The SAR services proposed by the SWIM/TF are illustrated in **Figure 2**.

Business functionality of the service	Brief description of the service	Type of information to be exchanged	Information exchange model / Message type	Message exchange pattern	Recommended service in initial APAC Common SWIM IS (1) / (2) / (3)
APAC Common SWIM Aeronautical Information Services					
Search and rescue service	Allows Rescue Coordination Centres (RCCs) to exchange information with neighbouring RCCs and ATS units for coordination during SAR operations.	Search and rescue regions, Registered aircraft operator details and contacts, ICAO Autonomous Distress Tracking (ADT) data, Location of Aircraft in Distress Repository (LADR) data, ICAO OPS CTRL database contact information, SAR Unit (SRU) location and capability data	TBD	Pub/Sub	3

Figure 2: Search and Rescue services

2.4   The Ad Hoc Group presented the outcomes of its discussions at the SWIM/TF/10 meeting, held from 20 to 23 May 2025.

Report to the Relevant Meetings

2.5   The outcomes of the discussions held by the APAC Common SWIM Aeronautical Information Services Ad Hoc Group will be reported to the relevant meetings, including AAITF/20 and ATM/SG/13.

3.   ACTION BY THE MEETING

3.1   The meeting is invited to:

a)   note the information contained in this paper;

b)   discuss if any proposed changes related to Search and Rescue-related message sets;

c)   consider how the APSAR/WG contribute to the SWIM-related activities; and

d)   discuss any relevant matters as appropriate.

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