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*International Civil Aviation Organization***The Seventh Meeting of System Wide Information Management Task Force (SWIM TF/7)***Bangkok, Thailand, 09 – 12 May 2023*

Agenda Item 3: Updates on the assigned tasks by task leads/contributors including progress report and issues

**e) Information Services**

- Task 6: Information Services

**INFORMATION TO BE EXCHANGED THROUGH  
APAC COMMON INFORMATION SERVICES**

(Presented by Hong Kong China)

**SUMMARY**

This paper presents the updates on the work of Task 6 to identify the catalog of basic data elements to be shared and exchanged via APAC Common SWIM Information Services based on operational needs in APAC.

**1. INTRODUCTION**

1.1 To support the development of a list of the common set of SWIM information services for APAC as recommended based on the outcome of SWIM survey conducted in 2022, SWIM TF Task 6 team undertook the work to identify the basic information to be exchanged via APAC Common SWIM Information Services. This paper presents proposed lists of data elements to be exchanged in APAC SWIM based on operational needs in APAC.

**2. DISCUSSION**

2.1 Provision of flight information via APAC SWIM allows end users to be more informed on the status of their aircraft and the factors affecting the timing of departures and arrivals. Aviation users will be notified of any flight plan amendments more effectively from SWIM enabled ANSPs via common information services. This also allows ATFM units to estimate demand for a given aerodrome and various sectors of airspace. The aviation stakeholders could respond to factors which may cause delays earlier, thus allowing them to make decisions and reallocate resources which can mitigate the impact to airlines and passengers. The proposed list of information to be exchanged via **Common Flight Information Services** in APAC is as follows:

- Departure aerodrome
- Destination aerodrome
- Flight identification
- Planned route/trajectory
- Aircraft type
- Estimated Off-Block Time (EOBT)
- Estimated Take-Off Time (ETOT)
- Estimated Landing Time (ELDT)
- Estimated Elapsed Time (EET)
- Calculated Take-Off Time (CTOT)
- Calculated Landing Time (CLDT)
- Target Off-Block Time (TOBT)
- Target Start Up Approval Time (TSAT)
- Target Take-Off Time (TTOT)
- Actual Off-Block Time (AOBT)
- Estimated Time Over (ETO)
- Calculated Time Over (CTO)
- Actual Time Over (ATO)
- Flight Plan Amendments
- Flight Plan Cancellations
- Ground Delay Programs (GDP)
- Miles-in-Trail (MIT)
- Minutes-in-Trail (MINIT)

2.2 If the aeronautical information in a common digital format is available and exchanged in APAC SWIM, the change in the availability of airspace or aerodrome equipment could be published to the relevant users more efficiently, allowing operational users to have increased lead time to react in flight planning and reducing the impact of the change to the airspace users and other aviation stakeholders. The proposed list of information to be exchanged via **Common Aeronautical Information Services** in APAC is as follows:

Aerodrome

- Location of aerodrome reference point
- Elevation
- Available runways and orientation
- Navigational aids and instrument landing systems
- Status of aerodrome equipment

Airspace

- FIR boundary
- Restricted Areas
- Prohibited Areas
- Temporary Flight Restrictions

2.3 Meteorological information services would provide users with the weather information over an airspace, near the aerodrome as well as along the entire route of a flight from gate to gate. Sharing such meteorological information via APAC SWIM and integrating them with flight, aeronautical or surveillance information would support various operational decision-making processes such as flight planning, fuel estimation, hazard weather avoidance and flow management. Meteorological information in various time horizons are essential for planning decisions (hours to days), near real-time pre-tactical decisions (minutes to hours), and real-time tactical decisions to ensure flight safety and efficiency. The proposed list of information to be exchanged via **Common Meteorological Information Services** in APAC is as follows:

Aerodrome

- Surface wind and gust
- Headwind
- Windshear
- Turbulence
- Crosswind
- QNH
- Temperature and dew point
- RVR
- Visibility
- Cloud amount and type
- Lightning
- Weather Radar data
- Wake vortex
- METAR
- TAF

Airspace

- Upper air wind
- Temperature
- CB clouds / deep convection area
- Icing
- Turbulence
- Tropopause height
- Significant weather (SIGWX) forecast
- SIGMET
- AIRMET
- Volcanic ash cloud
- Tropical cyclone information
- Satellite data
- Weather Radar data
- Pilot Report (PIREP)

2.4 The sharing of surveillance data via APAC SWIM is expected to benefit the aviation operations in the APAC region by enabling a more comprehensive and much wider map of surveillance coverage in the APAC Region. This would contribute to the safer and effective air traffic control and more efficient ATFM. Extended surveillance would enable ANSPs to see the traffic further ahead, facilitating the planning and implementation of ATFM measures. The proposed list of information to be exchanged via **Common Surveillance Information Services** in APAC is as follows:

- Time
- Latitude/longitude
- Altitude
- Ground speed
- Track angle
- Callsign
- Mode S address

2.5 The study on the proposed data catalog will continue in coordination with the relevant groups and subject matter experts to determine whether the data element to be exchanged in APAC Common Information Services are mandatory or optional, which would depend on the user group concerned and their use cases or operational scenarios. The list of APAC Common Information Services as well as their functionality will be identified based on the data elements to be shared and exchanged.

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

3.1 The meeting is invited to:

- a) review the proposed data catalog in para. 2.1-2.4 and provide suggestions on additional information that should be exchanged through APAC Common Information Services;
- b) discuss any relevant matters as appropriate.

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