



ICAO

*International Civil Aviation Organization***Third Meeting of the Surveillance Study Group (SURSG/3)**
(Hong Kong China, 22– 24 March 2023)

Agenda Item 6: Discussion of technical issues and solutions in surveillance data sharing

State of SWIM implementation in Singapore and readiness to share ADS-B data

(Presented by Singapore)

SUMMARY

This paper presents the progress of SWIM implementation in Singapore and its impact to the sharing of surveillance information, specifically ADS-B data from the Singapore ADS-B sensor.

1. INTRODUCTION

1.1 Singapore is in the midst of upgrading its SWIM infrastructure. This upgrade includes a provision for the connection to the Common aeronautical VPN (CRV) through which data can be shared.

2. DISCUSSION

2.1 Singapore began its SWIM program back in 2014, starting with participation in several demonstrations and trials organized by the US-FAA.

2.2 Singapore proceeded to deploy its internal SWIM in 2015 completing the works in 2017. This version of Singapore's SWIM was focused on consolidating internal data sources and supporting internal services and applications.

2.3 Currently the Singapore SWIM is being upgraded to be able to support better throughput, better message queue management, web accessible SWIM registry and communication to external parties through the CRV.

2.4 Works are expected to be completed by the 2nd quarter of 2023 with communication support through the CRV available by the 3rd quarter of 2023.

2.5 Upon completion of the SWIM upgrading works, it is the intention of Singapore to publish the ADS-B data from the Singapore ADS-B sensor for consumption by approved parties.

2.6 The intent is to offer the ADS-B data as an ASTERIX based JSON formatted message similar to how the current ADS-B service in the Singapore SWIM is provisioned.

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2.7 However, we recognize that the format for ADS-B data sharing has not yet been decided. Therefore Singapore wishes to propose that the meeting direct the S3TIG group to deliberate on this matter and consider the appropriate message format to facilitate ADS-B data exchange.

Conclusion/Decision XX/XX - For S3TIG to take up the task of determining the format for ADS-B data exchange	
What: The format for ADS-B data exchange has not yet been decided. The proposal is for the S3TIG to decide on the appropriate data format to facilitate exchange of ADS-B data.	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: This is a necessary step to ensure that all ADS-B services can be interoperable.	Follow-up: <input type="checkbox"/> Required from States
When: 24-Mar-23	Status: Draft to be adopted by Subgroup
Who: <input checked="" type="checkbox"/> Sub groups <input type="checkbox"/> APAC States <input type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: XXXX	

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss Singapore’s proposal for S3TIG to decide on the format for ADS-B data exchange.
- c) discuss any relevant matter as appropriate.
