

CNS SG/24  
Appendix P to the Report

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**TERMS OF REFERENCE**

**STUDY GROUP UNDER SURICG ON SHARING OF SURVEILLANCE DATA IN SWIM**

**Working Arrangement of the Study Group**

**Membership:** The Study Group under SURICG on Sharing of Surveillance Data in SWIM (“Study Group”, “SURSG” as acronym) shall be composed of subject matter experts from Member States involved in the provision of surveillance services and SWIM development as well representatives from Member States with an interest to contribute to the works of the SURSG. The SURSG may invite representatives of International Organizations recognized by the ICAO Council, Industry Partners or interested parties representing important civil aviation interests to participate in its work in consultative capacity.

The SURSG shall have Group Leads to be nominated and elected by its Members at its first meeting.

**Meetings:** While the SURSG is established in ad hoc nature, it shall convene face-to-face/web meeting to achieve its TOR. Outcome of its meetings shall be reported to and sought endorsement from the SURICG. Progress of the SURSG shall also be shared with SWIM TF and CRV OG via their nominated representatives joining the SURSG.

**Schedule and delivery:** Subject to the extent of prioritized applications considered by the SURSG, the schedule for delivery of the SURSG shall be decided by the SURSG, which shall update the SURICG accordingly.

**The Objectives of Study Group are to:**

- 1) Study, provide expert views and recommendations:
  - a) to achieve harmonized sharing of surveillance data in SWIM in the Asia and Pacific Regions (APAC) according to Surveillance Strategy adopted by APANPIRG and in support of ICAO’s GANP and ASBU initiatives; and
  - b) on the possible models of sharing surveillance data in SWIM in the SWIM environment, in consideration of the SWIM technical infrastructure, SWIM information service, CRV infrastructure and any applicable governance, and technical requirements.
- 2) Review, identify and provide expert views and recommendations to address major issues, raised to the SURSG by ICAO APAC, in the technical, operational or regulatory aspects of surveillance data sharing to facilitate the implementation of surveillance from “departure to destination” in APAC.

**Deliverables to meet the Objectives:**

- 1) To submit not fewer than 1 Progress Report per year to SURICG and SWIM TF, with the latest report submitted at least 2 months prior to convening of the SURICG meeting on the Study Group deliverables (listed in 2 to 4 below);
- 2) To study, identify and make recommendations on the **possible and practical** models for surveillance data sharing in SWIM in APAC with considerations of:
  - a) Concept of use/operation;
  - b) System design considerations of individual participant that shares surveillance data such as system robustness, data security and integrity, data latency, fallback arrangements and system recovery;
  - c) General requirements from perspective of collaborative sharing of surveillance data such as centralized/decentralized surveillance data processing, data repository, service registry, service resilience and service recovery;
  - d) Required commitments of data sharing participants such as commitment of resources and costs;
  - e) Implementation roadmap and time frames with consideration of
    - (i) An incremental approach/a comprehensive approach at the outset;
    - (ii) Type(s) of surveillance data to be shared; and
    - (iii) Information exchange model for surveillance data in SWIM;
  - f) SWIM technical infrastructure, SWIM information service, CRV infrastructure;
  - g) Other currently available or emerging technologies; and
  - h) ICAO Global Air Navigation Plan (GANP) and Aviation System Block Upgrades (ASBU) as well as APAC Seamless ANS Plan.
- 3) To prepare, based on its works in 2) above, a report on the possible implementation of surveillance data sharing in SWIM in APAC inclusive of the following:
  - a) Recommendations for:
    - (i) An incremental approach/a comprehensive approach at the outset in surveillance data sharing;
    - (ii) Type(s) of surveillance data to be shared; and
    - (iii) Information Exchange model of surveillance data in SWIM.
  - b) Pros and cons and cost effectiveness for the possible models that have been considered and a recommendation on the best approach or parallel approaches;
  - c) Concept(s) of Operations of the recommended approach(es);
  - d) Required commitments of participating Member States who share their surveillance data;
  - e) Required commitments of Member States who access the shared surveillance data; and
  - f) Draft multi-lateral agreement on surveillance data sharing and data consumption.
- 4) To develop guidance materials to assist Members States participating in the sharing of surveillance data and Member States accessing the shared surveillance data.

**Current Members** (*in alphabetical order*):

Australia, China, Hong Kong China, India, Singapore, Thailand, Nominated Representatives from SWIM TF and CRV OG.

**TERM OF REFERENCE**

<b>The Objectives of Study Group (SURSG) are to:</b>		<b>Efforts thus far</b>
1	Study, provide expert views and recommendations: <ol style="list-style-type: none"> <li>a) to achieve harmonized sharing of surveillance data in SWIM in the Asia and Pacific Regions (APAC) according to Surveillance Strategy adopted by APANPIRG and in support of ICAO's GANP and ASBU initiatives; and</li> <li>b) on the possible models of sharing surveillance data in SWIM environment, in consideration of the SWIM technical infrastructure, SWIM information service, CRV infrastructure, and any applicable governance, and technical requirement.</li> </ol>	
2	Review, identify and provide expert views and recommendations to address major issues, raised to the SURSG by ICAO APAC, in the technical, operational or regulatory aspects of surveillance data sharing to facilitate the Mode S DAPs implementation in APAC.	
<b>Deliverables to meet the Objectives:</b>		<b>Efforts thus far</b>
1	To submit not fewer than 1 Progress Report per year to SURICG and SWIM TF, with the latest report submitted at least 2 months prior to convening of the SURICG meeting on the SURSG deliverables (listed in 2 to 4 below)	
2	To study, identify and make recommendations on the possible and practical models for surveillance data in SWIM in APAC with considerations of: <ol style="list-style-type: none"> <li>a) Concept of use/operation;</li> <li>b) System design considerations of individual participant that shares surveillance data such as system robustness, data security and integrity, fallback arrangements and system recovery;</li> <li>c) General requirements from perspective of collaborative sharing of surveillance data such as centralized/decentralized surveillance data processing, data repository, service registry, service resilience and service recovery;</li> <li>d) Required commitments of data sharing participants such as commitment of resources and costs;</li> <li>e) Implementation roadmap and time frames with consideration of:               <ol style="list-style-type: none"> <li>(i) An incremental approach/a comprehensive approach at the outset;</li> <li>(ii) Type(s) of surveillance data to be shared; and</li> <li>(iii) Information exchange model for surveillance data in SWIM.</li> </ol> </li> <li>f) SWIM technical infrastructure, SWIM information service, and CRV infrastructure;</li> </ol>	

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	<p>g) Other currently available or emerging technologies; and  h) ICAO Global Air Navigation Plan (GANP) and Aviation System Block Upgrades (ASBU).</p>	
<p>3</p>	<p>To prepare, based on its works in 2) above, a report on the possible implementation of surveillance data sharing in SWIM in APAC inclusive of the following:</p> <p>a) Recommendations for:</p> <ul style="list-style-type: none"> <li>(i) An incremental approach/a comprehensive approach at the outset in surveillance data sharing;</li> <li>(ii) Type(s) of surveillance data to be shared; and</li> <li>(iii) Information Exchange model for surveillance data in SWIM.</li> </ul> <p>b) Pros and cons and cost effectiveness for the possible models that have been considered and a recommendation on the best approach or parallel approaches;</p> <p>c) Concept(s) of Operations of the recommended approach(es);</p> <p>d) Required commitments of participating Member States who share their surveillance data;</p> <p>e) Required commitments of Member States who access the shared surveillance data; and</p> <p>f) Draft multi-lateral agreement on surveillance data sharing and data consumption.</p>	
<p>4</p>	<p>To develop guidance materials to assist Members States participating in the sharing of surveillance data and Member States accessing the shared surveillance data.</p>	

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