



ICAO

*International Civil Aviation Organization***Second Meeting of the Surveillance Study Group (SURSG/2)**

(Video Teleconference (VTC), 15– 17 March 2022)

Agenda Item 6: Review of SURSG ToR and work plan/programme**REVIEW ToR AND ACTION ITEMS LIST**

(Presented by the Secretariat)

SUMMARY

This paper presents current ToR and Action item list of Surveillance study Group for review and update by the meeting.

1. INTRODUCTION

1.1 The Twenty Fourth Meeting of the Communications, Navigation and Surveillance Sub-group (CNS SG/24) of APANPIRG was held from *30 November to 4 December 2020* via video teleconference. The meeting was attended by 176 participants from 26 States/Administrations and 5 International Organizations namely CANSO, EUROCONTROL, IATA, IFATCA and IFATSEA, plus 26 participants from industry partners. CNS SG/24 meeting report, working papers, information papers, and other resources can be accessed at <https://www.icao.int/APAC/Meetings/Pages/2020-CNS-SG24.aspx>.

1.2 The First Meeting of the Surveillance Study Group (**SURSG/1**) was held from 20 to 22 April 2021 via video teleconference. The Meeting was attended by 118 participants from 15 States/Administrations, 4 International Organizations, and 2 industry partners (CANSO, IATA, ICCAIA, IFATCA, Frequentis, and PCCW Global). The meeting report, working papers, information papers, and other resources can be accessed by the following link: <https://www.icao.int/APAC/Meetings/Pages/2021-SURSG-1.aspx>.

1.3 This paper presents the ToR and action item list of SURSG for the meeting review and updates.

2. DISCUSSIONS

2.1 The CNS SG/24 meeting adopted the **Decision CNS SG/24/16 (SURICG/5/1)-Establishment of Study Group under SURICG on Sharing of Surveillance Data in SWIM** and reviewed the proposed ToR. The meeting recognized the need to revise ToR by adding chair role and function, frequency of the meeting of SURSG, and the mode of the various task lead meetings for effective progress update, decision making, work assignments as they arise and the need to update the list of contributing States as necessary. The meeting also discussed and agreed that the States who will not use SWIM or CRV may be considered in the study.

2.2 The SURSG/1 meeting reviewed the draft ToR, which was further adopted by CNS SG/25 by the **Decision CNS SG/25/12 (SURICG/6/6)- Revised ToR of Surveillance Study Group (SURSG)**. The Revised ToR of SURSG is provided in **Appendix A** to this paper.

2.3 The development of various actions items for this group has initiated since SURSG/1 which is provided in **Appendix B** to this paper.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) review the ToR of SURSG provided in **Appendix A** to this paper;
- b) review and update the Action Items list for SURSG provided in **Appendix B**; and
- c) discuss any relevant matter as appropriate.

Revised 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.

Participants of SURSG/1 (in alphabetical order):

Australia, China, Hong Kong - China, India, Indonesia, Malaysia, Nepal, Pakistan, Papua New Guinea, Philippines, Republic of Korea, Singapore, Thailand, United States, Viet Nam, CANSO, IATA, ICCAIA.

The SURSG shall have one elected Chair.

The SURSG shall have Task Leads and Sub-Task Leads for tasks detailed in the “Deliverables to meet the Objectives”, which currently features 4 main Tasks together with their sub-tasks. Members may volunteer to subscribe to the tasks and sub-tasks. Task Leads and Sub-Task Leads are to be selected through coordination and agreement among the respective task or sub-task subscribers.

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.

Task Leads and Sub-Task Leads shall convene meetings as necessary and in formats as appropriate to discuss and work on their tasks to achieve the scheduled deliverables making reference to Deliverables Template, a template of which is provided on the last page of this ToR.

Task Leads and Sub-Task Leads shall attend the SURSG meetings and in between SURSG meetings, ad-hoc or regular meetings to harmonize their work or resolve issues.

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) 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.

Template of Deliverables

		Efforts thus far
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 environment, in consideration of the SWIM technical infrastructure, SWIM information service, CRV infrastructure, and any applicable governance, and technical requirement.	
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.	
Deliverables to meet the Objectives:		Efforts thus far
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 : a) Concept of use/operation; b) System design considerations of individual participant that shares surveillance data such as system robustness, data security and integrity, 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, and CRV infrastructure;	

	g) Other currently available or emerging technologies; and h) ICAO Global Air Navigation Plan (GANP) and Aviation System Block Upgrades (ASBU).	
3	<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"> (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 for surveillance data in SWIM. <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>	
4	To develop guidance materials to assist Members States participating in the sharing of surveillance data and Member States accessing the shared surveillance data.	

Action Items SURSG/2

Action ID	Task	Responsible Person	Due Date	Deliverables	Status	Remarks
1-1	To provide the mapping for each task with terms of reference of SURSG for detailed technical description of each task	HK, China	SURSG/2	WP	Open	