



ICAO

*International Civil Aviation Organization***The Fifth Meeting of System Wide Information Management Task Force (SWIM TF/5)**

Video Tele-Conference, 9– 11 August 2021

**Agenda Item 8:** Review SWIM Task Force ToR, Programme, and Outstanding Action Items**REVIEW OF ToR, WORK PLAN, AND OUTSTANDING ACTION ITEMS**

(Presented by the SWIM TF Co-Chair and Secretariat)

**SUMMARY**

This paper presents the current SWIM TF's work plan, the updated Action List, and the proposal for amendment to the SWIM TF's ToR, to reflect the latest work status achieved and the revise task groups under the SWIM TF as well as the update of ICAO global and regional air navigation plans.

**1. INTRODUCTION**

1.1 The 20<sup>th</sup> Meeting of the Communications, Navigation and Surveillance Sub-Group of APANPIRG (CNS SG/20) was held in Bangkok, Thailand, from *11 to 15 July 2016*. In CNS SG/20 through **Decision CNS SG/20 – D3: Establishment of SWIM Task Force**, SWIM Task Force was established.

1.2 The First Meeting of the APAC SWIM Task Force (SWIM TF/1) was held at the ICAO Asia-Pacific Regional Office, Bangkok, Thailand, from *10 to 12 May 2017*. The Second Meeting of the APAC SWIM Task Force (SWIM TF/2) was held at the ICAO Asia-Pacific Regional Office, Bangkok, Thailand, from *09 to 12 April 2018*. The Third Meeting of the APAC SWIM Task Force (SWIM TF/3) was held at the ICAO Asia-Pacific Regional Office, Bangkok, Thailand, from *07 to 10 May 2019*. The Fourth Meeting of the APAC SWIM Task Force (SWIM TF/4) was held via Video Tele-Conferencing from *03 to 06 November 2020*.

**2. DISCUSSION**

2.1 The SWIM TF/1 meeting agreed on the Work Plan for the task force, which outlined the phased approach for SWIM implementation in APAC region, and assigned various tasks to task leads and contributors. The meeting also summarized Action Items arisen during discussion into an Action List.

2.2 The SWIM TF/2, SWIM TF/3, and SWIM TF/4 meetings further reviewed the work plan under Agenda Item *Review SWIM task force programme*. The meetings updated the Action List to reflect the progress in the past year and plan for the near future. The previously agreed (current) SWIM TF Work Plan is provided in **Appendix A**, and the Action List from SWIM TF/4 is provided in **Appendix B** to this paper. It was informed at the SWIM TF/4 that the objective to propose the revised

**Agenda Item 8**

9 – 11/08/21

Task Groups and Action Items was to better align the achievements from various tasks with the global guidance and regional implementation materials.

2.3 As an established effective practice in progressing various tasks of the SWIM TF, online Task Leads (TLs) coordination meetings have been organized from time to time between Task Force meetings. The latest TLs coordination meeting (*video teleconference*) was held on 29 June 2021 and resulted in the proposed modifications of Action List originally agreed by SWIM TF/4.

2.4 The proposed updated Action List after the TLs coordination meeting is provided in **Appendix C** to this paper for meeting review. The updated part is highlighted in yellow.

2.5 The Task scope and Task Leads update, shown with yellow highlight, are displayed in **Table 1**.

**Table 1.** Task Scope and Task Leads Update.

Groups	Task No.	Subject/Task	Task Leads
Implementation Planning	1	Regional implementation philosophy & roadmap	David Leow (Singapore) Amornrat Jirattigalachote (Thailand)
SWIM infrastructure	2	Regional SWIM infrastructure	Xiaodong Lu (Japan), Yukinobu Ryu (Japan), Henry Chan (Hong Kong, China)
	3	Security service	<b>Mr. Jim Laymon (USA)</b> Joe Jones (USA) ( <i>resigned</i> )
Technical Architecture	4	Development and maintenance of regional information exchange models	Amornrat Jirattigalachote (Thailand) Wen Zhu (USA)
Governance	5	Governance (policies and procedures)	<del>Jiseok Kang (ROK)</del> ( <i>Retired and replaced by Mr. Park in July 2021</i> ) <b>Mr. Dongkie Park (ROK)</b> Mark Kaplun (USA), Yukinobu Ryu (Japan), Xiaodong Lu (Japan), Honglei Gao (China)
Information Services	6	Information services	Joe Jones (USA) ( <i>Vacant</i> ) Renato Iannella (Australia) Marco Kok (Hong Kong, China)
Validation & Demonstration	7	SWIM <b>in ASEAN</b> demonstration ( <b>Closed</b> )	David Leow (Singapore) Amornrat Jirattigalachote (Thailand)
	8	SWIM services and application validation	Yukinobu Ryu (Japan), Xiaodong Lu (Japan), Honglei Gao (China), <del>Jiseok Kang (ROK)</del> <b>Mr. Dongkie Park (ROK)</b>
	9	Monitoring of Panels' work	Yukinobu Ryu (Japan)

Groups	Task No.	Subject/Task	Task Leads
Coordination and Promotion	10	Regional coordination and SWIM-related information sharing	<del>John Moore (IATA)</del> <i>high workload (Vacant)</i>
	11	SWIM implementation education and promotion (New task)	<b>Thomas Green (USA)</b>

2.6 To gather as much as possible the different viewpoints from Asia/Pacific Member States and international organizations facing diverse challenges, the meeting is requested to nominate experts from Member States and organizations to support various activities of Task 1 to 11.

2.7 Considering (i) the progress made since the establishment of SWIM TF, (ii) the update of ICAO global and regional air navigation plans, and (iii) the revised task groups adopted at SWIM TF/4, it is proposed to amend the SWIM TF’s Terms of Reference (TOR) as shown in **Appendix D**. To ensure that the objectives set in the TOR can be achieved, the Statement of Work (SOW) of each Tasks and the overall SWIM TF Work Plan (i.e. amendment to **Appendix A**) will require to be updated accordingly, after the further deliberation of the next TLs coordination meeting. The current SOW drafts of each Task are provided in **Appendix E**.

<b>Draft Conclusion SWIMTF/XX/XX – Revised SWIM TF Terms of Reference</b>	
What: That, the revised SWIM TF Terms of Reference (ToR) as shown in Appendix D is adopted.	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: To align with the progress made since the establishment of SWIM TF, the update of ICAO global and regional air navigation plans, and the revised task groups under SWIM TF adopted at SWIM TF/4.	Follow-up: <input checked="" type="checkbox"/> Required from CNS SG/25
When: 22-Oct-21	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;
- b) adopt the Draft Conclusion as shown in paragraph 2.7;
- c) provide proposal for amendment, if deemed necessary, to the Action List and draft SOWs;

**Agenda Item 8**

9 – 11/08/21

- d) nominate experts to participate in various tasks; and
- e) discuss any relevant matter as appropriate.

-----

Project	Task number	Task	Planned Start	Planned completion	Dependencies	Guidance for SOW	SOW (reference)	Task Lead(s)
SWIM - Definition phase	1-1	Benchmarking of best practices	2017	2018	SWIM Task Force created, resources available Panels deliver as expected Task 1.7 (common vocabulary)	Benchmark existing governance models (FAA, Europe), existing catalogues, existing arrangements for quality of service/SLA (availability/reliability), existing registries if any Benchmark mediation of legacy users Benchmark available existing SWIM and industry models for service descriptions ICCAIA IP13 to be included	1-1 Benchmarking - SOW	David J. Almeida (USA)
		Guidance to States: Interregional workshop Develop SWIM implementation guidance for phase 1 Develop SWIM implementation guidance for phase 2 (dual operations) Regional workshops	2017 2017 2017 2019	2022 2017 2018 2020	As needed	From the task 1-3 APANPIRG WG/TF planning to use or using SWIM may need guidance (ad hoc basis) Guidance to States Mediation of legacy users Lessons learnt from ASEAN SWIM demonstration		
		Guidance for publishers/consumers;	2017	2018	Task 1.1 Task 1-5 and 1-6 Task 1-4 (service descriptions)	Common vocabulary requirement on publishers and subscribers to use the common controlled vocabulary Should include developing a guide for the preparation of service descriptions (dependency = 1.4) Could include guidance for developers/publishers on a set of protocols/formats to use See WP/5 appendices b and c for FAA guidance Analyse which guidance is necessary from IP/6 and WP/6		
		SWIM Regional roadmap	2017 2018	2018 2022	SWIM Manual 10039 and Technical Manual	Initial Roadmap should be developed in alignment with Seamless ATM plan objectives - realistic timelines Can be a simple excel files recording all States intentions, revised intentions, and actual achievements SOW should address how and when to maintain roadmap Good mix of participants is required ICCAIA IP13 to be included Include in the roadmap the target dates for IWXXM (2018 recommendation METAR, TAF, Volc Ash, SIGMET, AIRMET --- and possibly a standard for 2020)		
	1-3	Regional coordination within APAC and guidance and training to APANPIRG bodies	2016	2022	SWIM Manual and Technical Manual Guidance on IWXXM	Use APANPIRG organizational chart Revise on an annual basis Establish simple "MOU" between concerned APANPIRG bodies	1-3 Regional Coordination - SOW_v0.1	John Moore (IATA)
		Guidance and training to APANPIRG WG/TF : - Provide guidance to APANPIRG WG/TF using SWIM	2017 2017 2019	2022 2017 2018 2020	As needed	From the task 1-3 APANPIRG WG/TF planning to use or using SWIM may need guidance (ad hoc basis) Guidance to States Mediation of legacy users Lessons learnt from ASEAN SWIM demonstration		
	1-4	SWIM governance	2018	2022	SWIM Manual and Technical Manual draft SARPS (stable and mature) lessons learnt from existing governance models (FAA, Europe)	Should include all stakeholders in APAC Should identify SARPS and guidance issued by IMP/ATMRPP/METP Strong coordination required with 1.5 WPO4 recommends two service Description models - task 1.4 to study options Version management should address backward compatibility and the content of models (FIXM, AXIM) possibility to operate PKI through the CRV service provider to be further explored	1-4 SWIM Governance - SOW_updated_fri	David Wills (New Zealand) for SWIM TF/1 and Mark Kaplun (USA) from SWIM TF/2
	1-5	Design Regional SWIM Registry and architecture for phase 2	2017	2019	SWIM ConOps and Technical Manual Overall requirements: Refer 2.5.4 of DOC 10039	Should take into account how to efficiently implement 2.5.4 of DOC 10039. Search, access, discovery features Should include access control and search functionalities. Chapter 3.5 SWIM Registry For architecture should take into account CRV and that there is no central operational entity in APAC to run common services Input< paper about service description (FAA) Strong coordination required with 1-4 3 approaches proposed in WPO7, not exclusive Not forget access to registries outside APAC Confirm if the option of PKI is suitable If yes coordinate with CRV OG to seek if PKI services provided by CRV provider would be a suitable option possibility to operate PKI through the CRV service provider to be further explored Consider SWIM architecture principles from IP02	1-5 SWIM Registry - SOW	Kang Jiseok (ROK) and David Leow (Singapore)
	1-6	Regional SWIM models	2016	2017	Global model definitions available	From the task 1-3 models may need extension /refinements - there is already a case for ATFM interaction with "light" approach discussed by IMP, coordination with 1-7 Relation with CCB - coordination with task 1-4	1-6 SWIM Regional Models - SOW_TF1_Av2	Amornrat Jirattigalochote (Thailand)
	1-7	Monitoring of panels work	2016	2022	SWIM Manual and Technical Manual	Escalate issues to the panels Report back from panels 2 IMP meetings per year, monthly conferences A need for a Discussion paper at IMP (deliverable of the task) Focal point for common controlled vocabulary, in coordination with 1-4 Version management should be coordinated regarding backward compatibility and the content of models (FIXM, AXIM) Focal point to trigger change requests to the models	1-7 Monitoring Panels - SOW	Yukinobu Ryu (Japan)
SWIM Implementation Phase 1 - initial expansion of services and preparation of phase 2	2-1-1	Promote new needs and new services and maintain database of publishers; (ID/access points/s)	2017	2019		An "Excel" file? Include service descriptions etc Assume registry services can be available on CRV from 2019 onwards 70 FAA applications are available for use and should be referenced in the catalogue	2-1-1 SWIM IMP Phase 1 - SOW_v1	Marco Mang Hin Kok (Hong Kong China)
	2-1-2	Implement SWIM registry and architecture	2019	2022	Task 1-5 completed CRV implemented	Assume registry services can be available on CRV from 2019 onwards Design and implement a mediation service (see SWIM TF-1, WPO5)	2-1-2 SWIM Registry - SOW	David Leow (Singapore)
	2-1-3	Support validation and publication of SWIM based applications	2017	2019	Availability of SWIM applications (task 2-1-2) SWIM registry and architecture (DNS service, security, etc) (task 2-1-4) Procedures/SLA: Task 1-4 Models: 1-6	SARPS and guidance Envisage a regional validation as a final step - see report of SWIM TF-1 for large scale tabletop exercise	2-1-3 SWIM IMP Phase 1 - SOW_v1	Xiaodong Lu (Japan), Gao Honglei (China) and Jiseok Kang (Republic of Korea)
SWIM Implementation Phase 2 - generalization	2-2-1	SWIM generalization	2022	2025	SWIM Manual and Technical Manual National transition roadmaps Task 2-1-2 Task 2-1-3 Task 2-1-1	Populate registry (2-1-2) using catalogue (2-1-1), and maintain it Task systematic cross-validation of new services using testbeds from 2-1-3 Optimize architecture on CRV (DNS, proxies) Assist States in their transition to full SWIM Assist States with LOA and guidance (1-1)	SOW to be drafted later on	TBD later on
	2-2-2	Facilitate dual operations	2022	2025		Operate a mediation service (see SWIM TF-1, WPO5) until all states have transitioned to SWIM (2-2-1)	SOW to be drafted later on	TBD later on

SWIM TF/5  
Appendix B to WP/03

Action ID	Reference	Who	What	Due date	Status	Comment
1-1	2.2.1 & 2.2.2	Jeri Groce (Chair), Secretariat	Introduce the mediation principle in the design of the SWIM transition	TBD	Open	This will be assigned to the eventual lead of 2.2.1.
1-4	1.4 & 1.1	Le Thi Phuong, (David Almeida)	Contribute to Task 1-1 regarding the benchmarking of quality and verification process, Service Level Agreements (SLA)	TBD	Open	Dependent on Task 1.1 Work Plan. David Almeida will reach out to Member of Viet Nam to establish schedule.
1-6	1.4	Mark Kaplun and David Wills	Embark requirements laid out in ICAO provisions and FAA best practices and other practices as available to define the SWIM security governance	30-Apr-2019	Open	There is interest in establishing a security task to discuss the crosscutting SWIM issues, perhaps this should be a separate task as ICAO moving toward global trust security networks The due date will be pushed to April 2019 for the next plenary meeting The secretariat will add an agenda item to the next plenary for "splitting out security from governance into its own task"
1-7	1.1	David Almeida and Edward Curtis	Introduce lessons learnt from ICCAIA in the benchmark	27-May-2018	Open	Dependent on Task 1.1 Work Plan. To be addressed after TF/3
1-8	2.1.3	Xiaodong Lu	Plan a large scale tabletop exercise and message exchange demonstration in the mid-term (2019 or 2020)	30-Nov-2018	Completed	There are currently two tasks – the ASEAN SWIM demo and FF-ICE/2 validation task. This task is reliant upon coordination with those 2 tasks. The due date will be pushed to November 2018 to allow time for FAA and ASEAN to make decisions Working on tabletop between Japan, Korea, and China. Will discuss this issue at TF/3
1-12	1.2 & 2.1.1	Amo, David Leow, Marco Kok	Align interdependencies between Task 1.2 and 2.1.1.	30-Apr-2018	Open	Artifacts of 2.1.1 can support 1.2. Will discuss at the October Brussels meeting.
1-16	1.2	Marco Kok, and John Moore	Develop plan for development of a data catalog for Aeronautical, Flight, and Weather data	30-Nov-2018	Open	A request for assistance from subject matter experts in the domain areas of Aeronautical, Flight, and Weather data has been made by action owner Marco Kok. Work still ongoing, coordinating with Amo, referring to data catalogue prepared by Aerothai. Working on finalizing flight data catalogue
1-18	Work Plan	Shane Sumner	Coordinate with Stephan Dubet who is developing the ICAO IMP SWIM Governance document	On-Going	Open	<ul style="list-style-type: none"> <li>• Shane will coordinate and prepare a paper.</li> <li>• Deliverable date is on-going.</li> <li>• Initial deliverable date will be the week of the plenary.</li> </ul>
1-24	Action Item 1-16	APAC Task Force Leadership	APAC Task Force Leadership to support Marco Kok, and John More on Action Item 1-16.	9-Apr-2018	Open	Amo: The AeroThai group have already developed an initial data catalogue and will provide to Mr. Kok. Shane: May be able to provide input into this activity as well.
2-4	1.1	David Almeida, Jay Zimmer	Make recommendations on the APAC Region applicability of items in SWIM TF/2 WP/4	30-Apr-2019	Open	XM recommendations will continue to be addressed as needed

SWIM TF/5  
Appendix B to WP/03

Action ID	Reference	Who	What	Due date	Status	Comment
2-5	1.3	John Moore	Coordinate SWIM TF and MET IE/WG outcomes and activities This action is really about broader coordination of SWIM activities in APAC (not solely MET) and raising awareness of the work of the SWIM Task Force.	31-Dec-2019	Open	WP09 SWIM in ASEAN Demonstration presented at ICAO APA-CDM TF/3
2-7	1.4	David Willis, Mark Kaplun	Examine CRV OG to determine what structure may be used to form an APAC Regional SWIM Governance Review Board		Open	Task will be left as is until more clarification from Wen Zhu
2-8	1.4	David Willis, Mark Kaplun	SWIM in ASEAN Demonstration participant Administrations to share any lessons learned or other insights relating to SWIM governance	30-Nov-2019	Open	This task's due date will be scheduled for a few months after the ASEAN SWIM demo to obtain their lessons learned, demo date 27/6/19.
2-11	1.8	Yunkinobu Ryu, Xiaodong Lu	Investigate the role of CRV in APAC SWIM and make recommendations on how APAC SWIM will interconnect with the CRV	30-Apr-2019	Completed	There are two options to establish SWIM platform on CRV. Confirms details of CRV and IMP to consider how to implement this method of the regional CRV. Xiaodong Lu will give a report about this in next SWIM TF meeting in 2019
2-14	1.1	David Almeida, Jay Zimmer, Hannah Hong	Develop an APAC SWIM education implementation plan and high level education materials	30-Apr-2019	Open	<ul style="list-style-type: none"> <li>_The SWIM education video for those with technical background has been finished which will be published on APAC website in March.</li> <li>_The SWIM brochure has been in the final stage for design and will be completed in April.</li> <li>_The SWIM education implementation plan draft was presented at TF/3 wil continue to be developed</li> </ul>
2-19	Action Item 2-14	All	All states are encouraged to provide more SWIM education materials		Open	
2-20	1.4	Wen Zhu, Mark Kaplun, David Leow, and David Almeida	Discuss and draft a proposal to the chair and try to get clarification on deliverables 1.4		Open	
2-21	1.8	David Leow and Amornrat Jirattigalochote	Provide all ASEAN SWIM Demo lessons learned and each subtask can absorb the lessons applicable to that group.	30-Nov-2019	Open	To be addressed after demonstration
2-22	2.1.4	Xiaodong Lu	Send an email to <b>Jiseok Kang</b> and Shane Sumner to resolve the discussion if task 2.1.4 should be included in the SWIM Registry/Architecture task		Closed	
3-1		Task leads	The Task Leads will address the APAC SWIM Implementation Materials Table of Contents of the at the next quarterly Task Force Lead Teleconference and provide input of supplementary materials by SWIM TF/4	30-Apr-2020	Open	
3-2	1.3	Wen Zhu	Set up dedicated working group to covers other areas of cybersecurity	30-Apr-2020	Open	
3-3	1.6	Amornrat Jirattigalochote	The APAC SWIM FIXM Extension be forwarded to the FIXM Change Control Board (CCB) for validation and publication on the FIXM official website	30-Apr-2020	Open	

SWIM TF/5  
Appendix B to WP/03

Action ID	Reference	Who	What	Due date	Status	Comment
3-4	1.7	Task Force members	SWIMTF members to submit comments to Japanese IMP member, Yukinobu Ryu	20-May-2019	Closed	
		Tasf Force members	SWIMTF to review Table of Contents for APAC SWIM Education programme (Appendix F to the SWIMTF/3 meeting report)	30-Jun-2019	Open	
4-1	Task 1&10	Secretariat	Enhance communication with ICAO EUR/NAT Office on SWIM PT activities	On-Going	Open	
4-2		Task leads	Further exploit and deliberate the outcomes of SWIM in ASEAN Demonstration to benefit States/Administration	SWIM TF/5	Open	
4-3	Task 3&5	Task Governance and Task Security Management	Further cooperation on the security and trust in the context of SWIM service discovery	SWIM TF/5	Open	
4-4		Task Leads of Task 2, Task 5 and Task 6	To join the study group proposed by SURICG to explore the initiative on surveillance data sharing over SWIM	SWIM TF/5	Open	
4-5		TF chair and Task Leads	Review the TOR and consolidate the action items in this list	1st TL meeting in 2021	Open	To align with GANP edition 6, APAC Seamless ANS Plan 3.0 and aim to enhance the interaction with other relevant contributory bodies of APANPIRG
4-6		Amornrat Jirattigalochote, Secretariat	Plan another SWIM workshop	1st TL meeting in 2021	Open	
4-7		TF chair and Task Leads	Follow up the Task 3 and Task 11	1st TL meeting in 2021	Open	
4-8	Task 9	Yukinobu Ryu, Secretariat	List of SWIM relevant Panels and representatives from APAC	SWIM TF/5	Open	To better monitor the Panels Work relevant to SWIM on the available resources and representation in APAC
4-9	Task 10	John Moore, Secretariat	List of SWIM relevant meetings in APAC	1st TL meeting in 2021	Open	To better support the regional coordination and SWIM related information sharing
4-10	Task 11	Task Leads, Secretariat	Seek information on SWIM education and promotion for consolidation by Task 10.	On-Going	Open	
4-11	Task 11	Task Leads, Secretariat	Share SWIM related material for future compilation of the APAC SWIM Implementation Materials	SWIM TF/5	Open	
4-12		Task Leads, Secretariat	Monitor GUF1 issue and share reference materials in using GUF1	On-Going	Open	Besides ICAO DOC 9965, EUROCAE ED-133 is good information. FAA will share its guidance to APAC.
4-13	Task 2	Task Leads	Develop APAC SWIM TI Profile	SWIM TF/5	Open	Proposed by Australia, needs further consideration by TL meeting.

SWIM TF/5  
Appendix C to WP/03

Action ID	Task No	Reference	Who	What	Due date	Status	Comment	Additional Notes
1-1		2.2.1 & 2.2.2	Jeri Groce (Chair), Secretariat	Introduce the mediation principle in the design of the SWIM transition	TBD	Closed	This will be assigned to the eventual lead of 2.2.1.	See attached TF-1 Paper and Mediation Paper
1-2		1.1	All	Confirm their interest in ASEAN SWIM demonstration	30-Apr-2018	Closed	<p>ASEAN demo has be out since October, but have had limited responses.</p> <ul style="list-style-type: none"> <li>• Awaiting feedback from China, Korea, and Japan.</li> <li>• A new due date of 31st of March has been requested.</li> </ul> <p>There are several confirmed partners, and an airline is helping with the coding and messaging in the scenarios.</p> <p>David Leow and Amo are involved with the demo, this task is moving forward on its own, perhaps David and Amo can provide update at next coordination meeting</p> <p>Australia, Hong Kong, Indonesia, Japan, Laos, Malaysia, Myanmar,</p>	
1-3		1.7 & 2.1.1	Yukinobu Ryu-san, (David Almeida)	Confirm terms used to designate the APAC SWIM “catalogue” are in compliance per controlled vocabulary	8-May-2018	Closed		
1-4			Le Thi Phuong, (David Almeida)	Contribute to Task 1-1 regarding the benchmarking of quality and verification process, Service Level Agreements (SLA)	TBD	Closed	Dependent on Task 1.1 Work Plan. David Almeida will reach out to Member of Viet Nam to establish schedule.	Suggest we close this action, based on aging of the topic. Viet Nam and all members are invited to provide working papers and information papers for future discussion.

SWIM TF/5  
Appendix C to WP/03

Action ID	Task No	Reference	Who	What	Due date	Status	Comment	Additional Notes
1-5		New conversation	Jiseok Kang	Define the minimum set of information and basic function of APAC SWIM registry	30-Nov-2018	Completed	<p>This activity must be aligned to the SARPS, PANS and guidance defined by the IMP.</p> <p>This activity needs a coordination with Task 2-1-1 to define service description elements for APAC SWIM services</p> <p>1. While we are looking forward to getting more guidance from IMP PANS, SARPS, the IMP is also wish to get more input on SWIM implementation from regional office while they are developing these two documents. So I suggest APAC SWIM TF should work in parallel, working on researching the policy of registry, in the meantime paying attention to the progress of IMP's developing PANS and SARPS of. I think it will be helpful to IMP and APAC SWIM implementation.</p> <p>2. The core editorial team of PANS-IM has invited Yukinobu Ryu, David Leow and Han Hong ( Hannah) to join the Vol.II editorial team with the objective to use their insights for verifying whether current draft Vol.II fulfills the requirements of the users,</p>	
1-6	3;5	1.4	Mark Kaplun and David Wills	Embark requirements laid out in ICAO provisions and FAA best practices and other practices as available to define the SWIM security governance	30-Apr-2019	Open	<p>There is interest in establishing a security task to discuss the crosscutting SWIM issues, perhaps this should be a separate task as ICAO moving toward global trust security networks</p> <p>The due date will be pushed to April 2019 for the next plenary meeting</p> <p>The secretariat will add an agenda item to the next plenary for "splitting out security from governance into its own task"</p>	
1-7	1	1.1	David Almeida and Edward Curtis	Introduce lessons learnt from ICCAIA in the benchmark	27-May-2018	Closed	<p>Dependent on Task 1.1 Work Plan. To be addressed after TF/3</p>	Task 1.1 has been completed. Various documents were provided. Request ICCAIA member take action to introduce additional lessons learned as Information Papers in future plenary's.

SWIM TF/5  
Appendix C to WP/03

Action ID	Task No	Reference	Who	What	Due date	Status	Comment	Additional Notes
1-8	8	2.1.3	Xiaodong Lu	Plan a large scale tabletop exercise and message exchange demonstration in the mid-term (2019 or 2020)	30-Nov-2018	Closed	There are currently two tasks – the ASEAN SWIM demo and FF-ICE/2 validation task. This task is reliant upon coordination with those 2 tasks. The due date will be pushed to November 2018 to allow time for FAA and ASEAN to make decisions Working on tabletop between Japan, Korea, and China. Will discuss this issue at TF/3	
1-9		Work Plan	Jeri Groce	Consolidate the SOW and update the work plan accordingly	22-May-2017	Closed	A residual action includes to setup webconference for the Task Leads.	
1-10		Work Plan	Frederic Lecat	Create a SWIM TF space under ICAO secure portal		Closed		
1-11		1.2	Amo, Stuart Wilson, David Almeida	Define the purpose of scope of "Outreach to Aviation Partners" deliverable	5-Oct-2017	Closed		
1-12	1	1.2 & 2.1.1	Amo, David Leow, Marco Kok	Align interdependencies between Task 1.2 and 2.1.1.	30-Apr-2018	Closed	Artifacts of 2.1.1 can support 1.2. Will discuss at the October Brussels meeting.	Recommend this item be closed due to the re-planning activity performed in 2020.
1-13		1.5	Jiseok Kang	Develop Working Paper for APAC SWIM registry approach	31-Dec-2018	Completed	This action is dependent on action item ID# 1-5 to finish before work can begin	
1-14		1.1	Ryu-San, David Leow, and David Almeida	Need to create a WP for presentation to the IMP, letting them know which artifacts the APAC TF is dependent on, and by what date we need the artifacts by.	1-Nov-2017	Closed		
1-15		Work Plan	Frederic Lecat	Send out ICAO Regional Martial out to te	1-Nov-2017	Closed		
1-16	1	1.2	Marco Kok, and John Moore	Develop plan for development of a data catalog for Aeronautical, Flight, and Weather data	30-Nov-2018	Closed	A request for assistance from subject matter experts in the domain areas of Aeronautical, Flight, and Weather data has been made by action owner Marco Kok. Work still ongoing, coordinating with Amo, referring to data catalogue prepared by Aerothai. Working on finalizing flight data catalogue	
1-17		1.1 & 1.4	Stuart Wilson, and Mark Kaplun	Need to coordinate development of SWIM Governance Framework for coordination between Task 1.1 and Task 1.4	30-Jan-2018	Closed		

SWIM TF/5  
Appendix C to WP/03

Action ID	Task No	Reference	Who	What	Due date	Status	Comment	Additional Notes
1-18		Work Plan	Mark Kaplun	Coordinate with Stephan Dubet who is developing the ICAO IMP SWIM Governance document	On-Going	Closed	<ul style="list-style-type: none"> <li>Mark Kaplun will coordinate and prepare a paper.</li> <li>Deliverable date is on-going.</li> <li>Initial deliverable date will be the week of the plenary.</li> </ul> *Next delivery date will be SWIM T/F 5 (AUG 2021)	Recommend forwarding this action to the current Governance task leads to update and resolve, as required by the TF team.
1-19		1.5	David Leow	Provide detailed Task 1.5 SOW to Stuart	10-Jan-2018	Closed		
1-20		1.4	Mark Kaplun	Provide Governance and Registry lessons learned out to Task 1.5	30-Jan-2018	Closed		
1-21		1.6	Frederic Lecat	Send ED-133 documentation to Amo and Amo to take this into consideration for requirements development for Task 1.6	?	Closed		
1-22		1.8	Jeri Groce	Determine who will be the leader of Architecture Task (Task 1.8)	?	Closed		
1-23		Work Plan	Stuart Wilson	Coordinate possible dates for next meeting and send out a poll.		Closed		
1-24		Action Item 1-16	APAC Task Force Leadership	APAC Task Force Leadership to support Marco Kok, and John More on Action Item 1-16.	9-Apr-2018	Closed	Amo: The AeroThai group have already developed an initial data catalogue and will provide to Mr. Kok. Shane: May be able to provide input into this activity as well.	
1-25		1.8	Yunkinobu Ryu	Provide proposal on structure of Task 1.8 by the end of January.	30-Jan-2018	Closed	WP 1-8 closed this task.	
2-1		2.1.3	Yunkinobu Ryu, Xiaodong Lu, Gao Honglei, Jiseok Kang	Plan Regional message exchange demonstration	30-Nov-2018	Closed	This action is related to action 1-8 and the due date will be scheduled for November 2018. This action was included in action 1-8 and has been closed as a result	
2-3	1	1.1	David Almeida, Thomas Green	Establish contact with any SWIM-related working groups in other ICAO Regions	30-Apr-2019	Closed	The main effort in Europe working on identity access management and security. Some policies that are evolving and service lifecycle management activities.	The FAA has several international coordination projects. As has been done in previous Leadership & Plenary sessions, as relevant topics come up, FAA SWIM Program will engage those other international partners to support information needs, etc.
2-4	1	1.1	David Almeida, Thomas Green	Make recommendations on the APAC Region applicability of items in SWIM TF/2 WP/4	30-Apr-2019	Closed	XM recommendations will continue to be addressed as needed	This action should be covered under Action 3-3.

SWIM TF/5  
Appendix C to WP/03

Action ID	Task No	Reference	Who	What	Due date	Status	Comment	Additional Notes
2-5	10	1.3	John Moore	Coordinate SWIM TF and MET IE/WG outcomes and activities This action is really about broader coordination of SWIM activities in APAC (not solely MET) and raising awareness of the work of the SWIM Task Force.	31-Dec-2019	Closed	WP09 SWIM in ASEAN Demonstration presented at ICAO APA-CDM TF/3	Closed because it is an ongoing activity (6/29)
2-6	10	1.3	John Moore More appropriate lead would be Amo or David Leow as the leads of the demonstration.	Coordinate minutes of SWIM in ASEAN Demonstration with SWIM TF	30-Nov-2018	Closed	David shared the minutes of ASEAN TIM #1, #2 on 18/11/2018	
2-7	5	1.4	David Willis, Mark Kaplun; Xiaodong Lu	Examine CRV OG to determine what structure may be used to form an APAC Regional SWIM Governance Review Board		Open	Task will be left as is until more clarification from Wen Zhu	Propose this is included in governance task (6/29); We need help from SWIM expert to come up with proposal Regional SWIM Governance to Discuss with CRV OG; Xiaodong and Wen to follow up
2-8	5	1.4	David Willis, Mark Kaplun	SWIM in ASEAN Demonstration participant Administrations to share any lessons learned or other insights relating to SWIM governance	30-Nov-2019	Closed	This task's due date will be scheduled for a few months after the ASEAN SWIM demo to obtain their lessons learned, demo date 27/6/19.	
2-9		1.4	David Willis, Mark Kaplun	Develop a draft APAC Governance Framework		Closed	Group decided this was a duplicate of task 1.4 and closed the action as it will be addressed by that task	
2-10		1.6	Amornrat Jirattigalochote	Coordinate SWIM in ASEAN Demonstration findings on A-CDM data attributes with APA-CDM/TF		Closed	WP09 SWIM in ASEAN Demonstration presented at ICAO APA-CDM TF/3	
2-11	2	1.8	Yunkinobu Ryu, Xiaodong Lu	Investigate the role of CRV in APAC SWIM and make recommendations on how APAC SWIM will interconnect with the CRV	30-Apr-2019	Closed	There are two options to establish SWIM platform on CRV. Confirms details of CRV and IMP to consider how to implement this method of the regional CRV. Xiaodong Lu will give a report about this in next SWIM TF meeting in 2019	Japan presented a paper on topic in SWIM T/F 4. Will be included in the Task 2 Deliverables (6/29)
2-12		2.1.1	Marco Mang Hin Kok	Re-Draft SWIM survey, together with educational material to also inform survey participants on SWIM	30-Apr-2019	Closed	Survey results presented at SWIM TF/3	

SWIM TF/5  
Appendix C to WP/03

Action ID	Task No	Reference	Who	What	Due date	Status	Comment	Additional Notes
2-14	1	1.1	David Almeida, Thomas Green,	Develop an APAC SWIM education implementation plan and high level education materials	30-Apr-2019	Open	<ul style="list-style-type: none"> <li>_The SWIM education video for those with technical background has been finished which will be published on APAC website in March. (DONE)</li> <li>_The SWIM brochure has been in the final stage for design and will be completed in April. (will review comments)</li> <li>_The SWIM education implementation plan draft was presented at TF/3 wil continue to be developed</li> </ul>	
2-15			All	Commence drafting an APAC Regional SWIM Implementation guidance document		Closed	<ul style="list-style-type: none"> <li>oThis action is the pure output of the APAC TF to serve as a repository of output of the TF.</li> <li>oShane Sumner took an action to discuss the due date for the APAC Regional SWIM Implementation guidance document and report back to the group</li> <li>oThe Secretariat and David Almeida took an action to create a skeleton structure of this document</li> <li>Discuss the due date for the APAC Regional SWIM Implementation Guidance document and report back to the group</li> <li>This action was merged with 3-1</li> </ul>	
2-16		Action Item 2-8	John Moore	Confirm the dates of the ASEAN SWIM Demo with David Leow and Amo		Closed	Demo June 27, 2019	
2-17		Action Item 2-15	Shane Sumner	Discuss the due date for the APAC Regional SWIM Implementation Guidance document and report back to the group		Closed	Action merged with 2-15	
2-18		Action Item 2-15	Secretariat and David Almeida	Create a skeleton structure of APAC Regional SWIM Implementation guidance document		Closed	Action merged with 2-15	
2-19		Action Item 2-14	All	All states are encouraged to provide more SWIM education materials		Closed		

SWIM TF/5  
Appendix C to WP/03

Action ID	Task No	Reference	Who	What	Due date	Status	Comment	Additional Notes
2-20	5	1.4	Wen Zhu, Mark Kaplun, David Leow, and David Almeida	Discuss and draft a proposal to the chair and try to get clarification on deliverables 1.4		Closed		Close. Overcome by events with modification of the task plan into new tasking.
2-21	2	1.8	David Leow and Amornrat Jirattigalochote	Provide all ASEAN SWIM Demo lessons learned and each subtask can absorb the lessons applicable to that group.	30-Nov-2019	Closed	To be addressed after demonstration	
2-22	5	2.1.4	Xiaodong Lu	Send an email to <b>Jiseok Kang</b> and Shane Sumner to resolve the discussion if task 2.1.4 should be included in the SWIM Registry/Architecture task		Closed		Included in task 5 (Governance)
2-23			Jay Zimmer	follow up with Shane Sumner to coordinate how APAC TF can interface with the CRV during Plenary 3. Need CRV points of contact to get on the agenda and brief out as well as attend this meeting		Closed	Shane Sumner: We'll coordinate any necessary changes to the provisional agendas internally within the Secretariat, in consultation with the Chairs. Our current plan has SWIM TF/3 scheduled for 06 to 10 May 2019, and CRV OG/6 for 08 to 10 May. FYI the CRV OG/5 meeting will be held in early January.	
3-1			Task leads	The Task Leads will address the APAC SWIM Implementation Materials Table of Contents of the at the next quarterly Task Force Lead Teleconference and provide input of supplementary materials by SWIM TF/4	30-Apr-2020	Closed		
3-2	2;3	1.3	Wen Zhu	Set up dedicated working group to covers other areas of cybersecurity	30-Apr-2020	Closed		Believe this on is complete, with establishment of Security efforts within Technical Infrastructure Services.
3-3	4	1.6	Amornrat Jirattigalochote	The APAC SWIM FIXM Extension be forwarded to the FIXM Change Control Board (CCB) for validation and publication on the FIXM official website	30-Apr-2020	Closed		
3-4	9	1.7	Task Force members	SWIMTF members to submit comments to Japanese IMP member, Yukinobu Ryu	20-May-2019	Closed		
			Tasf Force members	SWIMTF to review Table of Contents for APAC SWIM Education programme (Appendix F to the SWIMTF/3 meeting report)	30-Jun-2019	Closed		

SWIM TF/5  
Appendix C to WP/03

Action ID	Task No	Reference	Who	What	Due date	Status	Comment	Additional Notes
4-1	1,10	Task 1&10	Secretariat	Enhance communication with ICAO EUR/NAT Office on SWIM PT activities	On-Going	Closed		Routine task for the secretariat (6/29)
4-2			Task leads	Further exploit and deliberate the outcomes of SWIM in ASEAN Demonstration to benefit States/Administration	SWIM TF/5	Open		task leads to provide WP or IP on how ASEAN Demo can be leveraged in task areas
4-3	3,5	Task 3&5	Task Governance and Task Security Management	Further cooperation on the security and trust in the context of SWIM service discovery	SWIM TF/5	Open		Wen and Jim to coordinate on this action (6/29)
4-4			Task Leads of Task 2, Task 5 and Task 6	To join the study group proposed by SURICG to explore the initiative on surveillance data sharing over SWIM	SWIM TF/5	Closed		A number of members have joined this SG (6/29)
4-5			TF chair and Task Leads	Review the TOR and consolidate the action items in this list	SWIM TF/5	Open	To align with GANP edition 6, APAC Seamless ANS Plan 3.0 and aim to enhance the interaction with other relevant contributory bodies of APANPIRG	More feedback from TL on TOR for TF/5 needed (6/29)
4-6			Amornrat Jirattigalochote, Secretariat	Plan another SWIM workshop	1st TL meeting in 2021	Closed		
4-7			TF chair and Task Leads	Follow up the Task 3 and Task 11	1st TL meeting in 2021	Closed		
4-8	9	Task 9	Yukinobu Ryu, Secretariat	List of SWIM relevant ICAO Panels and representatives from APAC	SWIM TF/5	Open	To better monitor the Panels Work relevant to SWIM on the available resources and representation in APAC	
4-9	10	Task 10	John Moore, Secretariat	List of SWIM relevant meetings in APAC	SWIM TF/5	Open	To better support the regional coordination and SWIM related information sharing	
4-10	11	Task 11	Task Leads, Secretariat	Seek information on SWIM education and promotion for consolidation by Task 10.	On-Going	Closed		To be completed as a part of Task 11 activities
4-11	11	Task 11	Task Leads, Secretariat	Share SWIM related material for future compilation of the APAC SWIM Implementation Materials	SWIM TF/5	Open		
4-12			Task Leads, Secretariat	Monitor GUF I issue and share reference materials in using GUF I	On-Going	Open	Besides ICAO DOC 9965, EUROCAE ED-133 is good information. FAA will share its guidance to APAC.	Kristin to reach out to Diana Liang for materials on this subject
4-13	2	Task 2	Task Leads	Develop APAC SWIM TI Profile	SWIM TF/5	Open	Proposed by Australia, needs further consideration	Renato to provide a roadmap to develop the TI Profile

SWIM TF/5  
Appendix C to WP/03

Action ID	Task No	Reference	Who	What	Due date	Status	Comment	Additional Notes
5-1			Task Leads of Task 2, Task 5 and Task 7	Start study of surveillance data being carried via SWIM on CRV; Study to include exploration of updated exchange model	SWIM TF/6	Open	Action to be approved by the plenary; Action to be added to secretariat paper	
5-2			TBD	Conduct SWIM over CRV demo; Present finding to the group	SWIM TF/6	Open		

## TERMS OF REFERENCE

### SWIM Task Force

Objectives: In order to achieve ~~B1-SWIM~~the SWIM thread as specified in the Aviation System Block Upgrade (ASBU) of the Global Air Navigation Plan (GANP) ~~and~~, the Asia/Pacific Seamless ~~ATMANS~~ Plan objectives, and the ~~ATM and AIM~~ air navigation systems –that are in compliance with ICAO global standards for the conceptualisation and exchange of aeronautical, flight and meteorological information– ~~should be implemented in the high density FIRs and high density international aerodromes by November 2022 (PASL Phase III) and in all FIRs and international aerodromes by November 2025 (PASL Phase IV).~~ ~~To that end~~, the SWIM Task Force will:

- a) Benchmark the various successful implementations of SWIM in States and regions to ~~adopt~~promote best practices;
- b) ~~Develop and maintain a regional roadmap for SWIM services (ATM, AIM, MET, other), dependencies and enablers~~Develop and maintain the Asia/Pacific regional roadmap for SWIM implementation, including SWIM technical infrastructure, SWIM governance, SWIM information services;
- c) Define a high-level Asia/Pacific regional SWIM architecture, the corresponding SWIM technical infrastructure requirements, and the implementation approach to construct such architecture over CRV to ensure interoperability among regional SWIM participants and backward compatibility with non-SWIM capable entities;
- d) Develop the Asia/Pacific regional SWIM cyber security architecture framework and SWIM security strategy in line with ICAO International Aviation Trust Framework (IATF);
- e) Support APANPIRG WGs/TFs regarding information exchange models and examine if any extension to the existing information exchange models, i.e. AIXM, FIXM, and IWXXM, and/or the new information exchange model(s) are required to support the Asia/Pacific regional operational requirements;
- f) Establish a robust and sustainable governance model to ensure that a common set of policies, rules, and standards for identifying, designing, implementing, discovering, and operating SWIM-enabling components is consistently applied and enforced throughout the Asia/Pacific region;
- g) Develop and define the Asia/Pacific version of the SWIM information service overview specifications and the Asia/Pacific version of data catalogue for information services based on the regional operational needs;
- h) Track and observe SWIM demonstrations and trials within the Asia/Pacific region as well as provide, if required, support for regional SWIM demonstrations;
- i) Construct a platform for SWIM services and applications validation and support the implementation of SWIM services and applications;
- j) Monitor developments by the IMP and escalate ~~the regional~~ issues as required;
- k) Identify, communicate, and ~~Liaise~~ Liaise with relevant ~~regional contributory bodies~~APANPIRG WGs/TFs in regard to SWIM-related activities, including providing support to refine SWIM operational and communications requirements (example: ~~ATFM/SG, AIS-AAITF, MET IE/WG, AMHS ACSICG, CRV/OG, etc.~~);

- ~~l) Complement global SWIM governance with regional procedures as needed and define how it can be implemented in APAC, with a particular focus on version management of concept and exchange models, architecture models, cyber security, data quality management and maintenance of a trusted environment; (replaced by f)~~
- m) ~~Provide guidance and training to APAC member States and APANPIRG contributory bodies involved in SWIM related work~~Develop an educational and promotional materials required to support the regional SWIM implementation to ensure cohesiveness among regional SWIM participants;
- ~~n) Develop guidance/requirements for publishers/service providers and subscribers/service consumers; (replaced by g)~~
- ~~o) Promote enablement of ATM services as SWIM Application Services (SAS);~~
- ~~p) Define how SWIM Registry/Registries and services will be implemented in the APAC region and what the minimum level of information a service needs to provide to the Registry/Registries; (replaced and covered as part of f)~~
- ~~q) Support APANPIRG WG/TF regarding data exchange models of AIXM, FIXM, and IWXXM and examine if any extension is required for the operational use in APAC; (replaced by e)~~
- r) Support ~~Implement~~the APAC Asia/Pacific ~~R~~regional SWIM implementation; and
- s) Undertake any other tasks related to SWIM implementation that may arise in the future.

~~Considering the cross-disciplinary nature of SWIM, the Task Force will ensure proper coordination with relevant regional contributory bodies under APANPIRG. (already reflected in k)~~

#### Composition:

The SWIM TF will consist of experts from ATM, AIM, MET, and CNS from Asia/Pacific States ~~(ANS Providers)~~, and international organizations such as ~~from~~IATA and ICCAIA.

#### Conduct of the work:

The task force will conduct its work through ~~Web Conferences~~web conferences, teleconferences, other electronic means of communications, and Face-to-Face meetings.

#### Reporting:

The group will report to CNS SG.

-----



**Statement of Work**

**Task 1 Implementation Planning**

**Task Manager: David Leow and Amornrat Jirattigalachote**

<b>Project: SWIM Task Force</b>	
<b>Revision number: 03</b>	<b>Approved:</b> <a href="#">Click here to enter a date.</a>

**Objective and scope of the project**

- Develop and maintain the Asia/Pacific regional roadmap for SWIM implementation, including SWIM technical infrastructure, SWIM governance, aeronautical information service, flight information service, and weather information service

**Deliverables**

- List of required activities for SWIM implementation in Asia/Pacific
- Roadmap, including milestones along with corresponding activities and timelines
- Maintenance of the Asia/Pacific regional roadmap until the complete implementation of the Task objective

**Milestones**

- SWIM TF/5
  - List of required activities, e.g. regarding ATFM, A-CDM, ATFM/A-CDM integration operational requirements
  - Dependency with other tasks under SWIM TF; to assess the impact on related milestones and timelines to be developed
  - Inter-task-group communication; to figure out the appropriate sequence of the required activities
  - The first draft of Asia/Pacific regional roadmap focusing on ATFM, A-CDM, and ATFM/A-CDM integrated operation
- Before SWIM TF/6
  - Inter-task-group communication; to figure out the appropriate sequence of the required activities
- SWIM TF/6
  - The first version of Asia/Pacific regional roadmap
- SWIM TF/6 – Completion of Task Objective
  - Maintenance of Asia/Pacific regional roadmap

**Dependencies**

- Dependencies with projects supervised by different SG (will be controlled by APANPIRG):
  - AAITF
  - MET/IE WG
  - ATFM SG
  - APA-CDM TF
- Dependencies with projects supervised by the SG (will be controlled by SG):
  - CRV OG
  - SURICG



- Dependencies between tasks in the project (will be controlled by the Task Force):
  - All
- Other dependencies
  - IMP
  - TFSG

## Task participants

State/Organization	Name	Role/Responsibility	Email	Phone
Thailand	Amornrat Jirattigalachote	Lead	amornrat.ji@aerothai.co.th	+66 2 287 8262
Singapore	David Leow	Lead	david_leow@caas.gov.sg	+65 812 6 9724
Sri Lanka/Airport & Aviation Services Limited	Asanga Senarath Bandara	Contributor	asanga.eane@airport.lk asangasenarath@gmail.com	+94768242 654 +94112263 619
Indonesia/ Directorate General of Civil Aviation	Maruli Tua Edison Saragih	Contributor	edisonsaragih@yahoo.com edisonsaragih.es@gmail.com m_t@dephub.go.id	+62812978 5067 +628124656 9
Australia/ Airservices Australia	George Kerlin	Contributor	george.kerlin@airservicesaustralia.com	+61738663 263
ICCAIA/ Frequentis	Harald Milchrahm	Contributor / Observer	harald.milchrahm@frequentis.com	+43 664 60850 3223
Thailand/ CAAT	Jakrin Kutantham	Contributor	jakrin.k@caat.or.th	+66 92 295 6174
Thailand/ CAAT	Papasarin Jirawiwatkul	Contributor	Papasrin.j@caat.or.th	
Thailand/ CAAT	Renuka Kunsakda	Contributor	renuka.k@caat.or.th	+66 0 86 550 5987
Thailand/Airport of Thailand PLC	Boosapa Tavichai	Contributor	boosapa@airportthai.co.th	66 95 952 8423
Thailand/ Airport of Thailand PLC	Paytye Junphuang	Contributor	paytye.j@airportthai.co.th	66 25352431
Fiji/ Fiji Met Service	Adil Ali	Contributor/Observer	adil.ali@met.gov.fj	+67967248 88
Thailand/TMD	Rassmee Damrongkietwattana	Contributor	rassmee@hotmail.com	+66 21340011 Ext 213
Thailand/TMD	Rungtiwa Ruechai	Contributor	rungtiwa_ruechai@yahoo.com	+66 21340007
Thailand/TMD	Aphinya Chitchaeng	Contributor	aphinya.tmd@gmail.com	+66213400 07
China	Gao Honglei	Contributor	gaohonglei@atmb.net.cn	+86108778 6917
China	Lu Songtao	Contributor	lusongtao@atmb.net.cn	+86108424 7277
China	Xin Quan	Contributor	xinquan@ait.cn	+86108273 5133



**Working arrangements**

- Face-to-face meetings
  - Web conferences
  - Needs an ICAO secured portal, name: [Click here to enter text.](#)
  - Other: E-mail
-



**Statement of Work**

**Task 2 Regional SWIM Infrastructure**

**Task Leader: Yukinobu Ryu, Xiaodong Lu, Henry Chan**

<b>Project: APAC SWIM Task Force</b>	
<b>Revision number:</b> 02	<b>Approved:</b> <a href="#">Click here to enter a date.</a>

**Objective and scope of the project**

- Define the high-level APAC SWIM Architecture including policies on implementation and distribution of SWIM services
- Define the requirements for the APAC SWIM Infrastructure with the goal of ensuring technical interoperability
- Outline policy to ensure backwards compatibility with non-SWIM capable entities
- Develop a roadmap for the implementation of APAC SWIM Infrastructure

**Deliverables**

- Develop APAC SWIM Architecture requirements and policy
  - Regional interoperability and connectivity
  - Common aeronautical VPN (CRV) integration
  - Supporting Regional SWIM information services
  - SWIM mediation and backwards compatibility
  - APAC SWIM Architecture roadmap
- Develop APAC SWIM Infrastructure requirements
  - Messaging requirements
  - Security requirements
  - Technical Infrastructure Management requirements

**Milestones**

Indicate here the main milestones of the task or give a reference to a planning (Gantt chart etc)

- Milestone 1: ~2020.11 Define a CRV-based APAC SWIM Architecture to assure interoperability during the transition period
- Milestone 2: ~2021.12 Develop APAC SWIM Infrastructure requirements based on the related ICAO documents
- Milestone 3: ~2022.12 Propose an approach to implement secure APAC SWIM Infrastructure by cooperating with Task 3 Security Services
- Milestone 4: ~2023.6 Validate the APAC SWIM Infrastructure implementation via the joint demonstration with other task teams

**Dependencies**

Dependencies with projects supervised by different SG (will be controlled by APANPIRG):



- Manual on SWIM, SARPS, PANS and Guidance material from IMP, CP or ATMRPP

Dependencies with projects supervised by the SG (will be controlled by SG):

- Availability and capability of CRV implementation

Dependencies between tasks in the project (will be controlled by the Task Force):

- Task 5 – Governance
  - Integrate SWIM Governance requirements and policy
- Task 6 – Information Services
  - Support the implementation of SWIM Information Services
- Task 8 – SWIM Service and Application Validation
  - Get feedback for interoperability from SWIM Service and Application Validation

### **Task participants**

State/Organization	Name	Role/Responsibility	Email	Phone
Japan	Yukinobu Ryu	Co-Leader	ryuu-y2ea@mlit.go.jp	+81-3-5253-8751
Hongkong, China	Henry Chan	Co-Leader	hhlchan@cad.gov.hk	+852-2910-6574
Japan	Xiaodong Lu	Co-Leader	luxd@mpat.go.jp	+81-422-41-3528
Japan	Takuya Kanehira	Member	t-kanehira@nec.com	
Thailand	Amornrat Jirattigalachote	Member	amornrat.ji@aerothai.co.th	+66-2-287-8262
Thailand	Pipat Leawroongroj	Member	pipat.le@aerothai.co.th	+66-2-286-9252
China	Baojiang Zhang	Member	zhangbaojiang@atmb.net.cn	+86-10-8424-7276

### **Working arrangements**

- Face to face meetings
- Web conferences
- Needs an ICAO secured portal, name: [Click here to enter text.](#)
- Other: Email

----



**Statement of Work**

**Task – 3 Security Services**

**Task Manager: Jim Laymon, (FAA); TBD**

<b>Project: APAC SWIM Task Force</b>	
<b>Revision number:</b> 01	<b>Approved:</b> <a href="#">Click here to enter a date.</a>

**Objective and scope of the project**

- Advises TF Chair and Task Leads in the area of cybersecurity for APAC. Specific objectives include:
  - Determining the scope of security responsibility of SWIM, consistent with SWIM technical infrastructures envisioned by the ICAO Information Management Panel (IMP) and the APAC regional network infrastructures including the CRV.
  - Proposing a trust framework to ensure that the correct information is sent to the correct users, considering identity and access management initiatives (IAM) from member states.
  - Ensures interoperability of trust frameworks within APAC region and with other ICAO regions.
  - Developing SWIM Cyber Security Architecture Framework and SWIM security strategy for the Asia-Pacific Region. Analyses and capture SWIM security risks.
  - Provide security guidelines and best practices to be incorporated in SWIM APAC Governance activities.

**Deliverables**

- APAC SWIM Security Scope and Context (Working Paper)
- APAC SWIM PKI Trust Framework (Working Paper)
- Cyber Security Architecture Framework for SWIM in ICAO Asia-Pacific Region (Final, working Paper)

**Milestones**

- Draft Cyber Security Architecture Framework for SWIM in ICAO Asia-Pacific Region by (TBD)
- Working paper on APAC SWIM Security Scope, due TBD
- Working paper on the trust framework for APAC SWIM, due TBD
  - Survey of IAM Initiatives relevant to APAC SWIM, due TBD
  - Development of framework, due TBD
- APAC Trust Interoperability Demonstration - Complete
- Cyber Security Architecture Framework for SWIM in ICAO Asia-Pacific Region (Final Version), TBD

**Dependencies**



Dependencies with projects supervised by different SG (will be controlled by APANPIRG):

- SARPS, PANS & Guidance material from the IMP & other relevant panels (ie, ATMRPP)
- Coordination with CRV OG

Dependencies with projects supervised by the SG (will be controlled by SG):

Dependencies between tasks in the project (will be controlled by the Task Force):

- SWIM Manual Vol. II- Implementation Guidelines provides requirements on SWIM Security Capability and Security Non-Functional Qualities in 5.3 under Chapter 5-SWIM Technical Infrastructure (TI).
- Annex 17 – Security (tenth edition, April 2017), Doc 8973 Aviation Security Manual (9th edition, Oct.2014) and Doc 9985 ATM Security Manual (first edition, restricted, 2013) provide guidance for Cyber Security Architecture Framework of SWIM.
- Task 2 - Regional SWIM infrastructure
- Task 5 – Governance
- Task 6 – Information Services

Dependencies with projects at member states:

- SWIM Identity and Access Control projects

**Task participants**

State/Organization	Name	Role/Responsibility	Email	Phone
FAA	Jim Laymon	Task Lead	Jim.Laymon@faa.gov	(609) 485-6930
TBD	TBD	Task Lead	TBD	TBD
		Team Member		
...				

**Working arrangements**

- Face to face meetings
- Needs an ICAO secured portal, name: SWIM Cyber Security
- Teleconference
- Other: Internet Cooperative Work

----



**Statement of Work**

**Task 4 Technical Architecture**

**(Development and Maintenance of Regional Information Exchange Models)**

**Task Manager: Amornrat Jirattigalachote and Wen Zhu**

<b>Project: SWIM Task Force</b>	
<b>Revision number: 03</b>	<b>Approved:</b> <a href="#">Click here to enter a date.</a>

**Objective and scope of the project**

- Support APANPIRG WG/TF regarding information exchange models and examine if any extension to the existing information exchange models, i.e. AIXM, FIXM, and IWXXM, and/or the new information exchange model(s) are required to support the Asia/Pacific regional operational requirements

**Deliverables**

- Support APANPIRG WG/TF regarding information exchange models
- Information exchange model gap identification, i.e. to examine if any extension to the existing information exchange models, i.e. AIXM, FIXM, and IWXXM, and/or the new information exchange model(s) are required for the Asia/Pacific operational use
- Strategy to maintain the artifacts required to support the regional development and maintenance of information exchange model(s) and the extensions
- Approaches for information exchange model interoperability within the region and with other aviation partners

**Milestones**

- Now – SWIM TF Dissolution
  - Review of operational requirements on data required to be exchanged to support the Asia/Pacific regional operations
  - Examine if the required data attribute(s) are currently available in the existing information exchange models
  - Develop and test the extension(s) and/or new information exchange model(s), if needed
- SWIM TF/5
  - The first version of strategy to maintain the artifacts required to support the regional development and maintenance of information exchange model(s) and the extensions

**Dependencies**

- Dependencies with projects supervised by different SG (will be controlled by APANPIRG):
  - ATFM SG
  - APA-CDM TF
  - MET/IE WG
- Dependencies with projects supervised by the SG (will be controlled by SG):
  - None
- Dependencies between tasks in the project (will be controlled by the Task Force):
  - Task 1 Implementation Planning



# ICAO BANGKOK

- Task 2 SWIM Infrastructure
- Task 5 Governance
- Task 8 SWIM Services and Application Validation
- Task 10 Regional Coordination and SWIM-related Information Sharing
- Other dependencies:
  - Information exchange model change control boards, e.g. FIXM Change Control Board (FIXM CCB)

**Task participants *To be updated after SWIM TF/4!!!***

State/Organization	Name	Role/Responsibility	Email	Phone
Thailand	Amornrat Jirattigalachote	Lead	amornrat.ji@aerothai.co.th	+66 2 287 8262
USA	Wen Zhu	Lead	wzhu@nira-inc.com	+1 (301) 452-8338
Thailand	Pipat Leawroongroj	Contributor	pipat.le@aerothai.co.th	+66 2 285 9252
Indonesia/ Directorate General of Civil Aviation	Maruli Tua Edison Saragih	Contributor	edisonsaragih@yahoo.com edisonsaragih.es@gmail.com m_t@dephub.go.id	+628129785067 +6281246569
Fiji/Fiji Met Service	Adil Ali	Contributor/Observer	adil.ali@met.gov.fj	+6796724888
Australia – Airservices Australia	George Kerlin	Contributor	george.kerlin@airservicesaustralia.com	+61738663263
Sri Lanka/Airport & Aviation Services Limited	Asanga Senarath Bandara	Contributor	asanga.eane@airport.lk asangasenarath@gmail.com	+94768242654 +94112263619
Thailand/TMD	Rassmee Damrongkietwattana	Contributor	rassmee@hotmail.com	+66 21340011 Ext 213
Hong Kong, China	Macro Mang Hin Kok	Contributor	mhkok@hko.gov.hk	+852 2926 8702

**Working arrangements**

- Face-to-face meetings
- Web conferences
- Needs an ICAO secured portal, name: [Click here to enter text.](#)
- Other: E-mail

----



<b>Statement of Work</b>
<b>Task 5, SWIM Governance</b>
<b>Task Manager: Mark Kaplun (USA), TBD (ROK)</b>

<b>Project: SWIM Task Force</b>	
<b>Revision number:</b> 02	<b>Approved:</b> <a href="#">Click here to enter a date.</a>

**Objectives**

- I. Establish a robust and sustainable Governance model to ensure that a common set of policies, rules, and standards for identifying, designing, implementing, discovering, and operating SWIM-enabling components is consistently applied and enforced throughout the APAC.
- II. Develop or adopt standards, policies, and procedural guidelines to support the functional requirements for implementing all aspects of service-oriented development in the context of APAC SWIM.
- III. Facilitate visibility and control for insight into all APAC SWIM-enabled services by supporting developments of flexible mechanisms for service discovery, including, but not limited to, service registries.

**Deliverables**

- I. WP: APAC SWIM Service Discovery and Registry Interoperability Approach
- II. WP: APAC SWIM Governance Policies: Status and Plans
- III. WP: APAC SWIM Service Level Agreement (SLA): Template
- IV. WP: SWIM Interoperability Assessment Matrix (SIAM): Template
- V. IP: SWIM Metadata standards and taxonomies

**Milestones**

- I. Operational deployment of SWIM Discovery Services (SDSs) produced by the FAA and KAC (March 2022)
- II. Analysis and subsequent updates of SDS/registries network in APAC SWIM (August 2022)
- III. APAC SWIM Governance Policies: Status and Plans (TBD)
- IV. Release of SLA Template (June 2022)
- V. Release of SIAM Template (July 2022)

**Dependencies**

Dependencies between tasks in the project (will be controlled by the Task Force):



- Task 2 – Technological solutions and architectural views to be utilized in support of APAC SWIM infrastructure
- Task 3 - Information and analysis about security solutions deployed in APAC regions
- Task 6 - Identified standards and technological approaches to be utilized for service validations

### Task participants

State/Organization	Name	Role/Responsibility	Email
USA	Mark Kaplun	Task Lead	mark.kaplun@faa.gov
ROK	Choi Kyungsik	Contributor	kschoi76@airport.co.kr
ROK	Han Sehwan	Contributor	hsh91@airport.co.kr
USA	Wen Zhu	Contributor	wzhu@nira-inc.com
Japan	Yunkinoby Rye	Member	ryuu-y2ea@mlit.go.jp
China	Gai Honglei	Member	gaohonglei@atmb.net.cn
Japan	Xiaodong Lu	Member	luxd@mpat.go.jp

### Working arrangements

- Face to face meetings
- Webconferences
- Needs an ICAO secured portal, name: [Click here to enter text.](#)
- Other: [Click here to enter text.](#)

----



**Statement of Work**

**Task 6: Information Services**

**Task Manager: Renato Iannella and Marco Kok**

<b>Project: SWIM Task Force</b>	
<b>Revision number: 02</b>	<b>Approved:</b> <a href="#">Click here to enter a date.</a>

**Objective and scope of the project**

- To develop and define the APAC version of the SWIM information service overview specifications and APAC version of data catalogue for information services based on operational needs in APAC.

**Deliverables**

- Develop the APAC version of the required and optional information services
  - for ANSP to prioritize the implementation of services
- Develop the APAC version of data catalogue for information services
- Identify any additional fields required for SWIM service overviews in APAC
  - in addition to the elements in describing the Information Service Overview as defined in PANS-IM
- Recommend low-level technical implementation details in APAC to meet the high-level implementation guidance in PANS-IM, including
  - exchange schemas in JSON and/or XML Schema
  - standardised set of terms and categories for compatible information services to facilitate the categorization of service overview
  - handling of the null fields
- Document the above deliverables related to Information Services in “APAC SWIM Implementation Materials”

**Milestones**

- Milestone 1: Identify all the current known “service overview” specifications and implementations and compare them with PANS-IM version (Aug 2021)
- Milestone 2: Present the propose APAC version of service overview specification for consideration by SWIM TF (Aug 2021)
- Milestone 3: Identify optional fields and low-level technical implementation details of information services based on operational needs in APAC (Aug 2022)
- Milestone 4: Identify and compare current existing data catalog (e.g. FAA, EUROCONTROL, etc.) of different categories of information services (Aeronautical, Flight, MET, Surveillance, etc) (Dec 2021)
- Milestone 5: Present the propose APAC version of data catalog for identifying opportunities of new services, for consideration by SWIM TF (Aug 2022)



**Dependencies**

- Task Group #5 (Governance) - work on interoperability of service discovery
- ICAO IMP – new work items on SWIM Registries interoperability

**Task participants**

State/Organization	Name	Role/Responsibility	Email	Phone
Australia / Airservices Australia	Dr. Renato Iannella	Co-Lead	renato.iannella@AirservicesAustralia.com	+61 4 1313 2206
Hong Kong China / Hong Kong Observatory	Mr. Marco Kok	Co-Lead	mhkok@hko.gov.hk	+852 6226 7907

**Working arrangements**

- Face to face meetings
- Webconferences
- Needs an ICAO secured portal, name: [Click here to enter text.](#)
- Other: emails

----



**Statement of Work**

**Task 7 SWIM Demonstrations**

**Task Manager:** David Leow (Singapore) and Amornrat Jirattigalachote (Thailand)

<b>Project: SWIM Task Force</b>	
<b>Revision number:</b> 1	<b>Approved:</b> <a href="#">Click here to enter a date.</a>

**Objective and scope of the project**

- Report on the SWIM in ASEAN demonstration, particularly the lessons learnt
- Track and observe SWIM demonstrations and trials within the Asia/Pacific region and ensure that reports of those demonstrations and trails are presented to the SWIM Task Force
- Provide, if requested, support for regional SWIM demonstrations

**Deliverables**

- SWIM in ASEAN Demonstration Report
- Reports from other SWIM demonstrations within the Asia/Pacific region

**Milestones**

- SWIM TF/4: SWIM in ASEAN Demonstration Report
- TBD: Reports from other SWIM demonstrations

**Dependencies**

- Dependencies between tasks in the project (will be controlled by the Task Force):
  - All

**Task participants**

State/Org- anization	Name	Role/Respon- sibility	Email	Phone
Singapore	David Leow	Lead	david_leow@caas.gov.sg	+65 6595 6771
Thailand	Amornrat Jirattigalachote	Lead	amornrat.ji@aerOTHai.co.th	+66 2 287 8262

**Working arrangements**

- Face to face meetings
- Web conferences
- Needs an ICAO secured portal, name: [Click here to enter text.](#)
- Other: [Click here to enter text.](#)



----

<p><b>Statement of Work</b></p> <p><b>Task 8 SWIM Service and Application Validation</b></p> <p><b>Task Leader: Yunkinobu Ryu, Xiaodong Lu, Honglei Gao, Dongkie Park</b></p>
---

<b>Project: APAC SWIM Task Force</b>	
<b>Revision number: 02</b>	<b>Approved:</b> <a href="#">Click here to enter a date.</a>

**Objective and scope of the project**

- Construct a platform for SWIM service and application validation
- Support the implementation of SWIM service and applications
- Support the demonstration of SWIM based operations

**Deliverables**

- Develop validation requirements for APAC SWIM Infrastructure services
  - 
  - Messaging
  - Security
  - Technical Infrastructure Management
- Define and validate the required SWIM services and applications for supporting different operation levels by considering mixed-mode environment
  - SWIM based information sharing (ATFM, A-CDM and etc.)
  - FF-ICE/R1 operation
  - FF-ICE/R2 operation
  - Trajectory Based Operation
- Develop a common platform for SWIM service and application validation
  - Test system for FIXM, AIXM, and IWXXM message exchange
  - Technical support for regional validation and demonstration

**Milestones**

Indicate here the main milestones of the task or give a reference to a planning (Gantt chart etc)

- Milestone 1: ~2019.12 Construct a platform for SWIM service and application validation
- Milestone 2: ~2020.11 Conduct a demonstration for FF-ICE/R1 service validation
- Milestone 3: ~2021.12 Develop validation requirements for Regional SWIM Infrastructure
- Milestone 4: ~2022.12 Validate the Regional SWIM Infrastructure with Security Services via the joint demonstration



- Milestone 5: 2022.12~ Validate the required SWIM services and applications for different operation levels

## Dependencies

Dependencies with projects supervised by different SG (will be controlled by APANPIRG):

- Manual on SWIM, SARPS, PANS and Guidance material from IMP, CP or ATMRPP

Dependencies with projects supervised by the SG (will be controlled by SG):

- The status of SWIM TI implementation in APAC Region

Dependencies between tasks in the project (will be controlled by the Task Force):

- Task 2 – Regional SWIM Infrastructure, Task 3 – Security Services
  - Develop based on the Regional SWIM Infrastructure with Security Services
- Task 4 – Development and maintenance of regional information exchange models
  - Support the validation of regional information exchange models
- Task 5 – Governance
  - Integrate SWIM Governance requirements and policy
- Task 6 – Information Services
  - Support the validation of SWIM Information Services
- Task 7 – SWIM Demonstration
  - Cooperate for SWIM service and application validation through demonstrations

## Task participants

State/Organization	Name	Role/Responsibility	Email	Phone
Japan	Yukinobu Ryu	Manager	ryuu-y2ea@mlit.go.jp	+81-3-5253-8111
Japan	Xiaodong Lu	Leader	luxd@mpat.go.jp	+81-422-41-3528
China	Honglei Gao	Leader	gaohonglei@atmb.net.cn	+86-010-87786917
China	Baojiang Zhang	Member	zhangbaojiang@atmb.net.cn	+86-010-84247276
China	Hongming Ren	Member	renhongming@atmb.net.cn	+86-010-84247276
ROK	Dongkie Park	Leader	pdkie@airport.co.kr	+82-2-2660-4383
ROK	Sehwan Han	Member	hsh91@airport.co.kr	+82-2-2660-4383
ROK	Younghoon Kim	Member	yh89@airport.co.kr	+82-2-2660-2878
PCCW Global	Bono Ng	Member	bcng@pccwglobal.com	+85-2-3419-2103



**Working arrangements**

- Face to face meetings
- Web conferences
- Needs an ICAO secured portal, name: [Click here to enter text.](#)
- Other: Email

----



<b>Statement of Work</b>
<b>Task 9 Monitoring of Panel work</b>
<b>Task Manager: Yukinobu Ryu</b>

<b>Project: SWIM Task Force</b>	
<b>Revision number: 02</b>	<b>Approved:</b> <a href="#">Click here to enter a date.</a>

**Objective and scope of the project**

- Monitor developments by IMP and escalate issues/inputs as required

**Deliverables**

- Monitor developments by the IMP and escalate issues as required
- Periodic updates to IMP from SWIM Task Force work plan

**Milestones**

Indicate here the main milestones of the task or give a reference to a planning (Gantt chart etc)

- Milestone 1: IMP/2, 27 August-1 September 2021, Virtual Meeting
- Milestone 2: IMP/WG/11, September 2022, TBD

**Dependencies**

- ATM SG
- ATFM SG
- CNS SG
- MET SG

**Task participants**

State/Org- anization	Name	Role/Respon- sibility	Email	Phone
Japan	Yukinobu Ryu	Task manager	<a href="mailto:ryuu-y2ea@mlit.go.jp">ryuu-y2ea@mlit.go.jp</a>	+81-3-5253-8751

**Working arrangements**

Face to face meetings



# ICAO BANGKOK

- Needs an ICAO secured portal, name: Click here to enter text.
- Other: Click here to enter text.

----



<p><b>Statement of Work</b></p> <p><b>Task</b> Click here to enter text.</p> <p><b>Task Manager: Thomas Green</b></p>
---

<b>Project: SWIM Task Force</b>	
<b>Revision number:</b> Click here to enter text.	<b>Approved:</b> Click here to enter a date.

**Objective and scope of the project**

- Identify SWIM related activities (and their interdependencies) in planning or development within other WGs and TFs.
- Liaise with relevant regional TF/WG to refine operational and communications requirements (ATFM SG, MET IE, AAITF, ACSICG, CRV OG, etc).
- Provide guidance to APANPIRG WG/TF using SWIM.
- Influence outcomes from other WGs and TFs that will support successful expansion of SWIM (eg: development of SWIM compatible CRV).
  - This involves confirming inclusion on agendas and appropriate discussions ensuing

**Deliverables**

- Updates on SWIM initiatives and objectives in APAC:
  - SWIM in ASEAN Demonstration
  - Meteorology
  - Common Regional VPN:
  - Other developments:
- Actions in WP or presentations to provide updates from SWIM TF to APANPIRG WG/TF (e.g.: ATFM/SG, ACSICG, MET/SG, APSAR/WG, CNS/SG) on SWIM-related operational and communications activities

**Milestones**

Indicate here the main milestones of the task or give a reference to a planning (Gantt chart etc)

- Updates (WP/IP) to APANPIRG WG/TF as needed

**Dependencies**

Dependencies with projects supervised by different SG (will be controlled by APANPIRG):

- SWIM Manual and Technical Guidance Material

Dependencies with projects supervised by the SG (will be controlled by SG):



- SMEs to identify relevant projects within their domains
- Guidance on IWXXM
- Guidance on ATFM
- Updates on CRV and AMHS
- Web-based hosting tools (eg: SkyFusion)
- Multi-nodal developing an ICD

Dependencies between tasks in the project (will be controlled by the Task Force):

- Collation of all facets of subject matter expert (SME) input and identification of relationships and interdependencies

**Task participants**

State/Organization	Name	Role/Responsibility	Email	Phone

**Working arrangements**

- Face to face meetings
- Needs an ICAO secured portal, name: [Click here to enter text.](#)
- Other: Web meetings and Phone Calls

----



<p><b>Statement of Work</b></p> <p><b>Task 11 - SWIM Implementation Education and Promotion</b></p> <p><b>Task Manager: Thomas Green</b></p>
--

<b>Project: APAC SWIM Task Force</b>	
<b>Revision number:</b> V1	<b>Approved:</b> <a href="#">Click here to enter a date.</a>

**Objective and scope of the project**

- Creation of an educational and promotional program needed to support SWIM implementation, operations, and facilitate cooperation among stakeholders within the region.
- Collaboration with other APAC SWIM TF task to ensure cohesiveness between the guidance materials and educational material deliverable from the APAC SWIM TF.
- Management, organization, and dissemination of all APAC SWIM educational material
- Creation of an APAC SWIM education and promotional catalog

**Deliverables**

- APAC Region SWIM Educational and Promotional Roadmap
- APAC Regional SWIM Brochure
- APAC Regional SWIM Symposium
- APAC SWIM Regional Outreach Plan
- APAC SWIM Education and Promotional Catalog

**Milestones**

Task Number	Activity	Estimated Date of Completion
1	Creation of Draft APAC SWIM Brochure	TBD
2	Draft 3 year SWIM Education and Promotional roadmap	September 10, 2021
3	Confirm date for APAC SWIM Regional Symposium	TBD
4	Complete Draft APAC SWIM Regional Outreach Plan	TBD
5	Complete Draft of APAC SWIM Education and Promotional Catalog	TBD

**Dependencies**

- ICAO Doc 10039 - Manual on SWIM Concept
- SWIM Manual and Technical Guidance Material



- Guidance Materials issued via the various APAC SWIM TF Task

**Task Participants**

State/Organization	Name	Role/Responsibility	Email	Phone
LST	Thomas Green	Task Lead	<a href="mailto:Thomas.green@lstechllc.com">Thomas.green@lstechllc.com</a>	
AEROTHAI	Jittima Asawachaiporn	Participant	<a href="mailto:jittima214@gmail.com">jittima214@gmail.com</a>	

**Working arrangements**

- Face to face meetings
- Needs an ICAO secured portal, name: Click here to enter text.
- Other: Click here to enter text.

----