



Twenty Seventh Meeting of the Communications/ Navigation and Surveillance Sub-group (CNS SG/27) of APANPIRG

Bangkok, Thailand, 28 August - 1 September 2023

Agenda Item 2:

Review outcomes of 41st Session of ICAO Assembly, APANPIRG, APAC ANSP Committee, ATM Sub-group, MET Sub-group and other meetings relevant to CNS Sub-group

CNS SG/26 and APANPIRG/33 CONCLUSIONS/DECISIONS and ACTION ITEMS

(Presented by Secretariat)

SUMMARY

The paper presents the latest status and actions taken for various Conclusion/Decision adopted and recommended in the Twenty Sixth Meeting of the Communications, Navigation and Surveillance Sub-group (CNS SG/26) of APANPIRG, Conclusion/Decision adopted by the Thirty third Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/33) related to CNS along with latest status and action taken on various ACTION ITEMS formulated by the CNS SG/26 meeting for information and necessary follow-ups actions.

1. INTRODUCTION

1.1 The Thirty-third Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/33) was hosted by Indonesia at the Trans Resort Bali in Bali, Indonesia, *from 22 to 24 November 2022* as a hybrid event (in-person and virtual participation). The Meeting was attended by **326** participants from **30** Member States, **2** Special Administrative Regions of China, and **7** International Organizations (ACI, CANSO, IATA, ICAO, IFALPA, IFATSEA and PASO). The APANPIRG/33 meeting report, working papers, information papers, and other resources can be accessed by the following link:

https://www.icao.int/APAC/Meetings/Pages/2022-APANPIRG33.aspx

1.2 The Twenty Sixth Meeting of the Communications, Navigation and Surveillance Subgroup (CNS SG/26) of APANPIRG was held *from 5 to 9 September 2022* via Video Tele-Conference (VTC) using Microsoft Teams. The Meeting was attended by **247** participants from **26** States/Administrations and **4** International Organizations, including 21 from industry partners. The CNS SG/26 meeting report, working papers, information papers, and other resources can be accessed by the following link:

https://www.icao.int/APAC/Meetings/Pages/2022-CNS-SG-26.aspx

1.3 The APANPIRG/33 meeting reviewed the outcomes of the CNS SG/26, noted with appreciation the work done and achievements by the SG and the contributory bodies reporting to

APANPIRG through the SG, the Meeting discussed CNS related matters and took the following actions on the report of CNS SG/26 meeting and other papers presented under Agenda Item 3.4.

1.4 This paper summarized relevant information and updates from CNS SG/26 and APANPIRG/33.

2. DISCUSSION

OG/10/01)))

The actions taken by APANPIRG/33 meeting on CNS related matters are highlighted below:

2.1 The CNS SG/26 meeting adopted the following **5** Conclusions and **2** Decisions:

Reference		Subject
Conclusion CNS SG/26/03 (ACSICG/09/04)	-	Revised AFTN/ATSMHS Routing Directory
Decision CNS SG/26/04 (SWIM TF/06/01))	-	The Use of the Internet for MET Information Services in Regional SWIM Architecture
Decision CNS SG/26/07 (SWIM TF/06/06)	-	Revised SWIM TF Terms of Reference
Conclusion CNS/SG/26/09	-	Update of Flight Inspection Guidance Material (FIGM)
Conclusion CNS SG/26/10 (SURICG/7/1 (DAPs WG/5/1))	-	Mode S DAPs IGD 4.0
Conclusion CNS SG/26/12 (SURICG/7/4)	-	Revised ADS-B Implementation and Operations Guidance Document (AIGD)
Conclusion CNS SG/26/13 (ATMAS TF/3/1)	-	ATMAS IGD Edition 1.0

- 2.2 **Appendix A** of this paper provides detailed information about the above Conclusions/Decisions adopted by the CNS SG/26.
- 2.3 Based on the outcome of discussions on various agenda items, the CNS SG/26 meeting developed 5 Draft Conclusions and 1 Draft Decision for consideration by APANPIRG/33 Meeting, which were further adopted by APANPIRG/33. The Conclusions/Decisions adopted by APANPIRG/33 are as follows:

Reference

Conclusion APANPIRG/33/6 (CNS SG/26/01 (ACSICG/09/01 (CRV OG/09/01)))

Conclusion APANPIRG/33/7 (CNS SG/26/02 (ACSICG/09/02 (CRV)

- Revised Amendment of the Management Service Agreement for CRV project (RAS14801)

- Extension of CRV Contract for one year.

Decision APANPIRG/33/8 (CNS SG/26/05 (SWIM TF/06/03))

- Harmonization of Timelines for SWIM-related Initiatives

Conclusion APANPIRG/33/9 (*CNS SG/26/06* (*SWIM TF/06/02*, *SWIM TF/06/04*))

- The Asia-Pacific SWIM Implementation Timeframe and inclusion of the Asia/Pacific SWIM Implementation in the Asia/Pacific Seamless ANS Plan

Conclusion APANPIRG/33/10 (CNS SG/26/08 (SRWG/6/2))

- Planning Principle for Aeronautical Frequency Bands of 108-117.975 MHz, 960-1215 MHz and 117.975-137 MHz

Conclusion APANPIRG/33/11 (CNS SG/26/11 (SURICG/7/3))

- Revised Surveillance Strategy for the APAC Region

- 2.4 **Appendix B** of this paper provides information about all APANPIRG/33 Conclusions/Decisions related to CNS.
- 2.5 The latest status of various conclusions/decisions and action items formulated by the CNS SG/26 meeting is provided in **Appendix C** and **Appendix D**, respectively, to this paper.

3. ACTION BY THE MEETING

- 3.1 The Meeting is invited to:
 - a. note the latest status and action taken for various CNS SG/26 and APANPIRG/33 **Conclusions/Decisions** in **Appendix C** and take any necessary follow-up actions;
 - b. note the latest status and action taken for CNS SG/26 action items provided in **Appendix D** and take any necessary follow-up actions; and
 - c. discuss any relevant matters as appropriate.

CNS SG/27 Appendix A to WP03

List of Conclusion/Decisions adopted by CNS SG/26 on behalf of APANPIRG on Technical Matters

Conclusion CNS SG/26/03 (ACSICG/09/04) - Revised AFTN/ATSMHS Routing Directory					
What: That, the AFTN/ATSMHS Routing Director Region provided in Appendix B to the report be furred distributed to States/Administrations as 29 th Edition.	Expected impact: ☐ Political / Global ☐ Inter-regional ☐ Economic ☐ Environmental ☒ Ops/Technical				
Why: A number of new ATSMHS connections have established and became operational. Consequence amendments to the AFTN/ATSMHS Routing Director required.	Follow-				
When: 9-Sep-22		Status: A	Adopted by Subgroup		
Who: ⊠ CNS SG ⊠APAC States ⊠ICAO APAC	RO □	САО НС	Other:		
Decision CNS SG/26/04 (SWIM TF/06/01) - The U	Iso of th	a Internet	t for MET Information Sorvices		
in Regional SWIM architecture	se or ur	e miemei	TOT MET IIIOTHIAUOH Services		
What: That, the use of Internet for information services will be considered in designi SWIM architecture.					
Why: To support cost-effective and efficient meteorological information services for exchange of less-sensitive meteorological information in SWIM.	-up:	□Required from States			
When: 9-Sep-22	Status:	A	Adopted by Subgroup		
Who: ⊠Sub groups □APAC States □ICAC	O APAC	RO □I	CAO HQ ⊠Other: SWIM TF		
Decision CNS SG/26/07 (SWIM TF/06/05) – Revis			rms of Reference		
What: That, the revised SWIM TF Terms of Reference shown in Appendix E be adopted.	R) as	Expected impact: □ Political / Global □ Inter-regional □ Economic □ Environmental ☑ Ops/Technical			
Why: To align with the progress made since the SWIM TF/5 and outcomes of Action item 25-1 from CNS SG/25.	w-up:	□Required from States			
When: 09 September 2022	Statu	s:	Adopted by Subgroup		
Who:					

Conclusion CNS SG/26/09 - Update of Flight Inspection Guidance Material (FIGM)							
What: That, the Edition 3.0 of the Flight Inspection Guidance Material (FIGM) provided in Appendix F to the Report be adopted. □ Political / Global □ Inter-regional □ Economic □ Environmental □ Ops/Technical							
Why: The FIGM is subject to regular review and up the light of on-going development of flight instandards and recommended practices.	-up: □ Required from						
When: 9-Sep-22		Status:	Adopted by Subgroup				
Who: ⊠Sub groups ⊠APAC States ⊠ICAO APAC	RO □I	ICAO HQ) □Other: -				
Conclusion CNS SG/26/10 (SURICG/7/1 (DAPs W	(G/5/1))	: Mode S	5 DAPs IGD 4.0				
What: The Mode S DAPs Implementation and Ope Document Edition 4.0 provided in Appendix G to adopted			Expected impact: □ Political / Global □ Inter-regional □ Economic □ Environmental ☑ Ops/Technical				
Why: The revised draft includes ADS-B DAPs and guidance on the measurement of 1030/1090 MHz usa		Follow-u	p: ⊠Required from States				
When: 9-Sep-22		Status: A	dopted by Sub-group				
Who: ⊠Sub groups □APAC States □ICAO APA	C RO	□ICAO I	HQ □Other: -				
Conclusion CNS SG/26/12 (SURICG/7/4) - Revi Guidance Document (AIGD)		-	-				
What: That, the revised ADS-B Implem Operations Guidance Document (AIGD) provided in to the Report, which consolidated all change prop SURICG/7, be adopted as Version 15.0.	Expected impact: Political / Global Inter-regional Economic Environmental Ops/Technical						
Why: Updates from SURICG/7	Follow	-up:	□Required from States				
When: 9-Sep-22	Status:	Adopte	d by Subgroup				
Who: ⊠ Subgroup □APAC States ⊠ICAO APAC	C RO □	ICAO H	Q 🛮 Other: SURICG				
Conclusion CNS SG/26/13 (ATMAS TF/3/1) - ATM	AS IGD	Edition	1.0				
What: The Air Traffic Management Automation System Implementation and Operations Guidance Document Edition 1.0 provided in Appendix J to this Report be adopted Expected impact: □ Political / Global							

List of Conclusions/Decisions adopted by CNS SG/26 on behalf of APANPIRG on Technical Matters

	☐ Inter-regional					
	☐ Economic					
	☐ Environmental					
Why: The revised draft has been added the DMAN						
function and reviewed/updated with inputs from various	Follow-up: Required from States					
States						
When: 9-Sep-22	Status: Adopted by Subgroup					
Who: ⊠Sub groups □APAC States □ICAO APAC RO □ICAO HQ ⊠Other: ATMAS TF						

CNS SG/27 Appendix B to WP/03

A List of Conclusions adopted by APANPIRG/33 Meeting related to CNS

Conclusion APANPIRG/33/6 (CNS SG/26/01 (ACSICG/09/01 (CRV OG/09/01))):						
Revised Amendment of the Management Service Agreement	ent for CRV pr	oject (RAS14801)				
What: Recognizing that ICAO Technical Coopera satisfactorily completed all the defined work items in the initial Service Agreement (MSA) and Project Document of RAS1 required payments were settled, and that in end 2016, all the reboth parties have been fully completed and closed on record, i) all Pioneer States are encouraged to counter-sign the Rev Pro Document provided in Appendix A to Agenda Item 3.4 ii) any Pioneer State not countersigning is entitled to get it remaining fund balance back. and iii) a Pioneer State for which a direct CRV connection is a feasible in 2017 by the selected vendor is entitled to get its initial.	Expected impact: □ Political / Global □ Inter-regional ⊠ Economic □ Environmental ⊠ Ops/Technical					
in full	ar continuation					
Why: The initial scope of MSA was completed by ICAO TCB which allowed for a successful evaluation process and selection of a best and final offer; a majority of Pioneer States is willing to use the rest of their initial contribution to continue to support CRV implementation.	Required from States					
When: 24-Nov-22	Status: Adopte	d by PIRG				
Who: ⊠Sub groups ⊠APAC States ⊠ICAO APAC RO □	ICAO HQ □O	ther:				
Conclusion APANPIRG/33/7 (CNS SG/26/02 (ACSICG/09/02 (CRV OG/10/01))): Extension of CRV Contract for one year						
What: a) Recognizing that as per current contract, all authorities shat project and sign the relevant Service Contract(s) with PCO billing start date on or before 31 December 2022 to not importance by the service provider and based on the survey responsive Member States are in process to join CRV which may not by December 2022, it is recommended to extend current CR one year.	Expected impact: ☐ Political / Global ☐ Inter-regional ☒ Economic ☐ Environmental ☒ Ops/Technical					
b) If agreed to extend, as per amended CRV contract, all author the CRV program and sign the relevant Service Contract(s) with the billing start date on or before 31 December 2023 additional charges by the service provider. c) After the extension, the CRV contract expiry date will be						
2028.	22 200mber					

Why: Several ICAO Member States have re to extend CRV contract due to COVID-19 pandemic Implementation webinar held in 2021 and based response of the survey done in 2022, many Member are in process to join CRV which may not be comp December 2022.	up: ⊠Required from States		
When: 24-Nov-22	Adopted by PIRG		
Who: ⊠Sub groups ⊠APAC States ⊠ICAO APA	AC RO □	ICAO H	Q □Other:
Decision APANPIRG/33/8 (CNS SG/26/05 (SWIM Harmonization of Timelines for SWIM-related In	nitiatives		
What: To feedback to the ICAO Air Navigation Technical Panels for a need to harmonize the timelines of SWIM-related initiatives.		ntation	Expected impact: Political / Global Inter-regional Economic Environmental Ops/Technical
Why: There exists different timelines for the implementation of SWIM-related initiatives identified by various ICAO ANC Technical Panels. This creates confusion within States on their corresponding implementation sequences and as to how these different timelines are to be met.	Follow-u	ıp: [☐Required from States
When: 24-Nov-22	Adopted l	oy PIRG	
Who: ⊠Sub groups □APAC States ⊠ICAO APA	AC RO	ICAO H	Q ØOther: SWIM TF
Conclusion APANPIRG/33/9 (CNS SG/26/06 (SWI The Asia-Pacific SWIM Implementation Timefra Implementation in the Asia/Pacific Seamless ANS	ame and i		
What: 1. To set the timeframe for the implementation of S Pacific region to be between 2024 and 2030, wire target timeline for implementation completion. 2. To include SWIM implementation in the next Asia/Pacific Seamless ANS Plan.	Expected impact: □ Political / Global □ Inter-regional ⋈ Economic □ Environmental ⋈ Ops/Technical		
Why: This is to set the concrete target implemental Pacific regional SWIM to assist States in has implementation plans in order to achieve the sean exchange across the region in time for future operation Additionally, to ensure that SWIM, a key building ble vision outlined in ICAO Doc 9854 Global ATM Oper (GATMOC), is captured in the Asia/Pacific Sear	armonizing nless infor ions, e.g. F ock to achi erational C	g their rmation FF-ICE. ieve the Concept	Follow-up: ⊠ Required from States

implementations to meet the future perform	1						
When: 24-Nov-22	Status: Adopted by PIRG						
Who: ⊠Sub groups ⊠APAC States ⊠ICAO APAC RO □ICAO HQ ⊠Other: SWIM TF							
Conclusion APANPIRG/33/10 (CNS SG/26/08 (SRWG/6/2)): Planning Principle for Aeronautical Frequency Bands of 108-117.975 MHz, 960-1215 MHz and 117.975-137 MHz							
What: That, Doc 9718, Handbook on Radio Frequency Spectrum Requirements for Civil Aviation, Volume II, Second Edition − 2022, is adopted as the planning principle for aeronautical facilities and services operating in the aeronautical frequency bands of 108-117.975 MHz, 960- 1215 MHz and 117.975- 137 MHz in APAC. □ Expected impact: □ Political / Global □ Inter-regional □ Economic □ Environmental □ Ops/Technical							
Why: To implement the updated ICAO pro	visions Follow-up:	☐ Required from States					
When: 24-Nov-22 Status: Adopted by PIRG							
Who: ⊠Sub groups ⊠APAC States ⊠ICAO APAC RO □ICAO HQ □Other: -							
Conclusion APANPIRG/33/11 (CNS SG/2							

Conclusion APANPIRG/33/11 (<i>CNS SG/26/11 (SURICG/7/3)</i>):						
Revised Surveillance Strategy for the APAC Region						
What: That, the Revised Surveillance Strategy f	for the APAC	Expected impact:				
Region provided in Appendix D to Agenda	Item 3.4 be	☐ Political / Global				
adopted.						
		⊠ Economic				
		☐ Environmental				
		☑ Ops/Technical				
Why: To reflect the outcome of the latest development in surveillance technology.	Follow-up:	⊠Required from States				
When: 24-Nov-22	Status: Adop	ted by PIRG				
Who: \BSub groups \BAPAC States \BICAO APAC RO \BICAO HO \BI Other SURICG						

CNS SG/27 Appendix C to WP/03

Reference		Subject	Status	Action Taken
Conclusion APANPIRG/33/6 (CNS SG/26/01 (ACSICG/09/01 (CRV OG/09/01)))	-	Revised Amendment of the Management Service Agreement for CRV project (RAS14801)	Completed	State Letters Ref.: T 8/2.15 – AP-CNS 0007 to22/23 dated 9 January 2023 Subject: Revised Amendment of the Management Service Agreement for the CRV project (RAS14801) was sent. Revised Agreement is signed by all requested pioneer Member States.
Conclusion APANPIRG/33/7 (CNS SG/26/02 (ACSICG/09/02 (CRV OG/10/01)))	-	Extension of CRV Contract for one year.	Completed	State Letter Ref.: T 8/2.15 –AP003/23(CNS) 4 January 2023 Subject: Extension of CRV Contract for one year and a reminder for the target year of CRV Implementation by 31 December 2023 in the APAC Region was sent.
Conclusion CNS SG/26/03 (ACSICG/09/04)	-	Revised AFTN/ATSMHS Routing Directory	Completed	Published on e-doc portal
Decision CNS SG/26/04 (SWIM TF/06/01))	-	The Use of the Internet for MET Information Services in Regional SWIM architecture	Completed	SWIM TF is considering to define APAC Infrastructure
Decision APANPIRG/33/8 (CNS SG/26/05 (SWIM TF/06/03))		Harmonization of Timelines for SWIM-related Initiatives	Completed	Informed to HQ
Conclusion APANPIRG/33/9 (CNS SG/26/06 (SWIM TF/06/02, SWIM TF/06/04))		The Asia-Pacific SWIM Implementation Timeframe and inclusion of the Asia/Pacific SWIM Implementation in the Asia/Pacific Seamless ANS Plan	Completed	Informed to relevant section

CNS SG/27 Appendix C to WP/03

Decision CNS SG/26/07 (SWIM TF/06/06)	-	Revised SWIM TF Terms of Reference	Completed	Working adopted by SWIM TF
Conclusion APANPIRG/33/10 (CNS SG/26/08 (SRWG/6/2))	-	Planning Principle for Aeronautical Frequency Bands of 108-117.975 MHz, 960-1215 MHz and 117.975-137 MHz	Completed	State Letter Ref.: T 8/8.5 & T 8/8.6 – AP022/23 (CNS) 27 January 2023 Subject: Planning Principle for Aeronautical Frequency Bands of 108-117.975 MHz, 960-1215 MHz and 117.975-137 MHz Action Required: To note the APANPIRG Conclusion on the Planning Principle, with reference to APAC State Letter AP131/22 (CNS) dated 29 September 2022 and the latest Edition 2.0 of Doc 9718 for planning relevant Aeronautical Frequency Bands
Conclusion CNS/SG/26/09	-	Update of Flight Inspection Guidance Material (FIGM)	Completed	State Letter Ref.: T 8/9.1 – AP023/23 (CNS) 27 January 2023 Subject: Updated CNS regional guidance materials in the Asia and Pacific Regions was sent
Conclusion CNS SG/26/10 (SURICG/7/1 (DAPs WG/5/1))	-	Mode S DAPs IGD 4.0	Completed	State Letter Ref.: T 8/9.1 – AP023/23 (CNS) 27 January 2023 Subject: Updated CNS regional guidance materials in the Asia and Pacific Regions was sent
Conclusion APANPIRG/33/11 (CNS SG/26/11 (SURICG/7/3))	-	Revised Surveillance Strategy for the APAC Region	Completed	State Letter Ref.: T 8/5.1 – AP020/23 (CNS) 27 January 2023 Subject: Revised Surveillance Strategy for the APAC Region was sent
Conclusion CNS SG/26/12 (SURICG/7/4)	-	Revised ADS-B Implementation and Operations Guidance Document (AIGD)	Completed	State Letter Ref.: T 8/9.1 – AP023/23 (CNS) 27 January 2023 Subject: Updated CNS regional guidance materials in the Asia and Pacific Regions was sent

CNS SG/27 Appendix C to WP/03

Conclusion CNS SG/26/13	-	ATMAS IGD Edition 1.0	Completed	State Letter Ref.: T 8/9.1 – AP023/23 (CNS) 27
(ATMAS TF/3/1)				January 2023 Subject: Updated CNS regional
				guidance materials in the Asia and Pacific Regions
				was sent

	ACTION ITEMS OF CNS SG/26									
Action Item	Subject	Status / Target Date	Action Party	Status	Remarks / follow-up					
26-1	Submit a joint CNS-ATM Working Paper to discuss and highlight the issue on alerts of AIDC messaging failure (details in WP/32 Air Traffic Management and Airspace Safety Monitoring Outcomes of CNS SG/26)	ATMAS TF/4	ICAO Secretariat	Closed	Established the repository of AIDC Implementation Status in APAC region and provided the preliminary analysis of the current status through WP/22 in CNS SG/27 (WP/05 in ACSICG/10 and WP/06 in ATMAS TF/4)					
26-2	Provide technical support to Sri Lanka for CRV Implementation	CNS SG/27	Sri Lanka, CRV OG Chairs, PCCWG, ICAO Secretariat	Closed	Shared email on 2nd Nov with Sri Lanka and followed up on 10 Nov, 6 Dec. Sri Lanka confirmed to close action item by email					
26-3	Ensure SWIM TF and ACSICG experts are involved in the FF-ICE workshop/webinar/seminar to be held by ATMAS TF.	Next FF-ICE workshop/webinar /seminar	ICAO Secretariat	Closed	Seminar was conducted on 27 June 2023					
26-4	State Letter for encouraging States to coordinate with ICAO APAC Regional Office before assigning frequencies for aeronautical services in frequency bands of 190-526.5 kHz, 108-117.975 MHz, 960 – 1215 MHz and 117.975 to 137 MHz that may affect the use of aeronautical frequencies in other States.	CNS SG/27	ICAO Secretariat	Closed	State Letter Ref.: T 8/8.4, T 8/8.5 & T 8/8.6 – AP131/22 (CNS) dated 29 September 2022 for promulgating the Conclusion SRWG/6/1 - Frequency coordination for aeronautical frequency bands of 190-526.5 kHz, 108-117.975 MHz, 960-1215 MHz and 117.975-137 MHz.					
26-5	Review and propose revise APAC Navigation Strategy, if required.	CNS SG/27	APAC Member States, ICAO Secretariat	Closed	Ref.: T 8/5.1 – AP021/23 (CNS) 27 January 2023 Subject: Review Navigation Strategy for the Asia/Pacific Region					
26-6	Organize a webinar/workshop on Inconsistent ICAO Aircraft Address and Target Identification between Surveillance Data and Flight Plan	CNS SG/27	Hong Kong China, IATA, ICAO Secretariat	Closed	Workshop was conducted on 6 June 2023					
26-7	Prepare and share the State Letter to all APAC Member States to provide their comments on proposed ICAO ATSEP human factor guidance material	CNS SG/27	ICAO Secretariat	Closed	SL Ref.: T 3/9.9 – AP130/22 (CNS) 22 September 2022 Subject: The draft ICAO APAC Regional Air Traffic Safety Electronics Personal (ATSEP) Human Factor Guidance Material sent. Reply date before 31 October 2022. Email from USA and Australia for no comments. No other reply.					
26-8	Share the proposition to identify and incorporate the relevant ASBU modules in Doc 10057 - Manual on Air Traffic Safety Electronics Personnel Competency-based Training and Assessment to the relevant HQ expert group	CNS SG/27	ICAO Secretariat	Open	Email sent to HQ on 9 Nov 2022 Follow up actions taken with HQ. Response awaited Personnel Training & Licensing Panel (PTLP) is reviewing its various job cards in order to get a better structure and a clearer understanding of the various work packages. Whilst revamping the job card on CBTA, the Secretariat added an item to review doc 10057. Those new/updated job cards will be discussed at PTLP/4 in early November 2023.					