International Civil Aviation Organization

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 9: Regional implementation review and updates

9.1 Seamless ANS Reporting Process including the ASBU regional performance dashboard/implementation plan

REPOSITORY OF AIDC IMPLEMENTATION STATUS IN APAC

(Presented by the Secretariat)

SUMMARY

This paper presents the latest repository of AIDC Implementation Status in APAC region, the preliminary analysis of the current status, and invites States/Administrations to review and update if necessary.

1. INTRODUCTION

1.1 As a follow-up on the ACTION ITEM 7-1 of APA TF/7 held *from 7 to 9 June 2021*, the ICAO Secretariat reformatted the table and separated AIDC and ATM System Implementation columns from the ATN/AMHS/AIDC implementation table into a standalone table.

1.2 However, considering the necessity of a comprehensive monitoring tool for AIDC implementation status in APAC region to support data statistics and analysis, the new repository table of AIDC Implementation Status in APAC region was designed, and has been further reviewed and adopted by ACSICG/9 held *from 19 to 21 April 2022* and ATMAS TF/3 held *from 7 to 10 June 2022*. The ATMAS TF/3 agreed that the ICAO Secretariat will issue a State Letter in due course to circulate the table to States/Administrations for supplements and validation as ACTION ITEM 3-2.

1.3 This paper presents the latest repository of AIDC Implementation Status in APAC region, the preliminary analysis of the current status, and invites States/Administrations to review and continue to update the AIDC implementation status if necessary.

2. DISCUSSION

The Latest Repository of AIDC Implementation Status in APAC

2.1 The ATS Inter-facility Data Communications (AIDC) is an effective tool which can foster better collaborative air traffic management between concerned ATSUs of adjacent FIRs, and aim

to replace the voice communication between ATS units by automatic message exchange. Therefore, AIDC has been regarded as FICE-B0/1 element in the Global Air Navigation Plan (GANP Sixth edition) Aviation System Block Upgrades (ASBU) framework, which has also been identified as one of the regional priority modules of the ICAO Asia/Pacific Seamless ANS Plan V3.0.

2.2 With continued growth in ATC traffic, AIDC plays an important role in improving the efficiency of coordination and transferring of control between ATS units. If, however, AIDC messages are not transmitted and received in a timely manner between ATM automation systems, there would be potential risks if AIDC does not meet the performance criteria as aircraft might cross boundaries without coordination or transfer of control responsibility taking place. In order to effectively use the AIDC application for the interchange of ATC coordination data, specified performance requirements need to be monitored between neighbouring ATSUs implementing AIDC.

2.3 In order to follow up the **ACTION ITEM 7-1** of APA TF/7 which was undertaken by ATMAS TF through **Decision CNS SG/25/16** after APA TF dissolution, the Secretariat has worked on the table formatting and extracted AIDC and ATM System Implementation columns from the ATN/AMHS/AIDC implementation table into a standalone table.

2.4 However, since the table cannot support data statistics and analysis, and considering the necessity of a comprehensive repository for AIDC implementation status in the APAC region, along with modifying the formatting of the original table, the Secretariat with contributions from India has designed and drafted a table to monitor the AIDC Implementation Status. With reference to PAN Regional Interface Control Document (PAN ICD) and Asia/Pacific Seamless ANS Plan V3.0, the elements on the drafted table are based on the ICAO APAC e-ANP Volume II *Table CNS II – APAC-1 – ATS Inter-facility Data Communication (AIDC) Implementation Plan* with supplements of some AIDC elements had been discussed and concerned in the past APA TF meetings.

2.5 The table is intended to maintain a common understanding between ATMAS TF and ACSICG on AIDC implementation status and establish the repository of the AIDC Implementation Status for APAC Region, which collects the AIDC connections statuses from States on interface attributes and progressing, average transmission delay, AIDC messages exchanges, and bilateral agreement or AIDC version, etc.

2.6 According to the suggestions received from ACSICG/9, the ICAO Secretariat has incorporated the AIDC implementation status relevant information gathered from the ICAO APAC e-ANP Volume II *Table CNS II – APAC-1 – ATS Inter-facility Data Communication (AIDC) Implementation Plan* and States updates during ACSICG and APA TF meetings, and filled into the draft table, which was further adopted by ACSICG/9 and ATMAS TF/3.

2.7 To follow up ACTION ITEM 3-2 of ATMAS TF/3, the table of AIDC repository with current status has been circulated through State Letter **Ref.:** T 8/3.5: AP135/22 (CNS) with Subject – *Validate and Supplement the Table of AIDC Implementation Status in APAC Region* on 17 October 2022, which is provided in **Appendix A** of this paper.

2.8 Total 15 updates have been received from States/Administrations, namely Australia, Cambodia, China, Hong Kong China, Japan, Lao PDR, Malaysia, Maldives, New Zealand, Pakistan, Republic of Korea, Singapore, Sir Lanka, Thailand, and USA. The table of AIDC Implementation Status in APAC region with the latest status is provided in **Appendix B** to this paper for reference and update by the meeting.

Preliminary Analysis of the Current Status

2.9 According to the updates received, the preliminary analysis of the current AIDC implementation status in APAC region has also been summarized by the Secretariat as follows for meeting review.

2.9.1. Overview

With reference to the latest AIDC Repository in APAC region, until now, total 21 States/Administrations have already implemented AIDC, 3 States/Administrations are still under testing, and 19 States/Administrations have not implemented AIDC yet. Among these, 90% of AIDC links are intraregional, while 10% of links are interregional. The overall AIDC implementation status is presented in Figure 1.

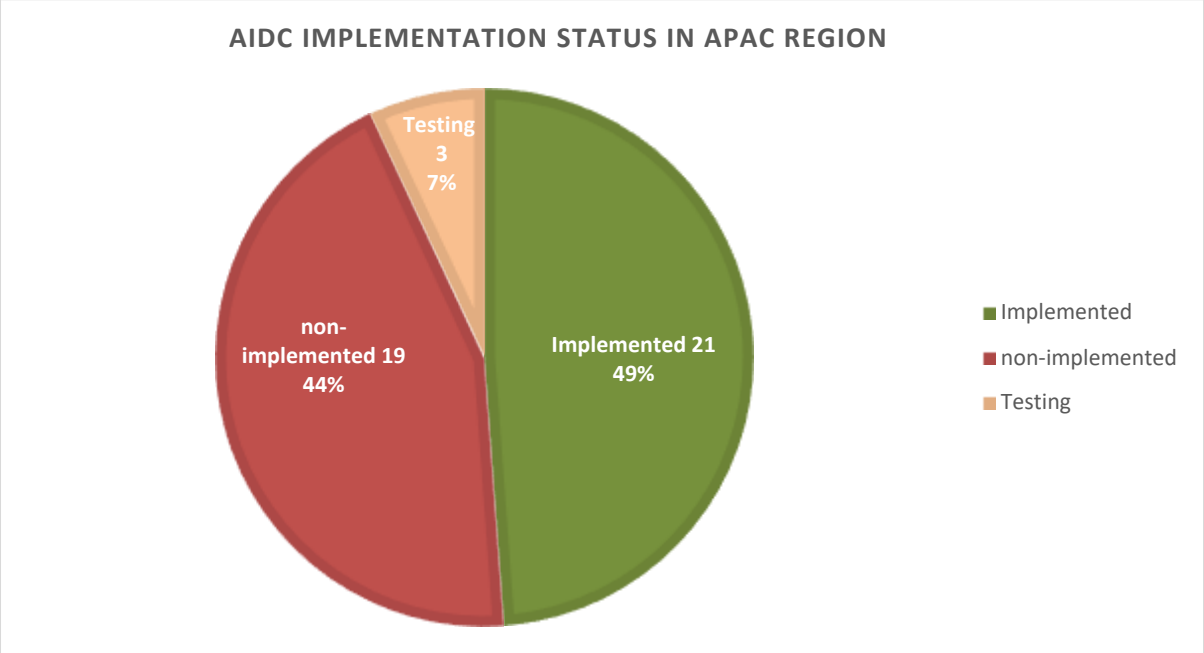

Figure 1 – Overall AIDC Implementation Status in APAC

2.9.2. Transmission Means

The carriage of AIDC messages is facilitated through existing communication networks (e.g. AFTN, AMHS, etc.). The type of network that will be used for AIDC message exchange will need to be defined, including the appropriate recovery/ contingency actions that will be adopted in abnormal situations. The status of AIDC transmission means in APAC is presented in Figure 2.

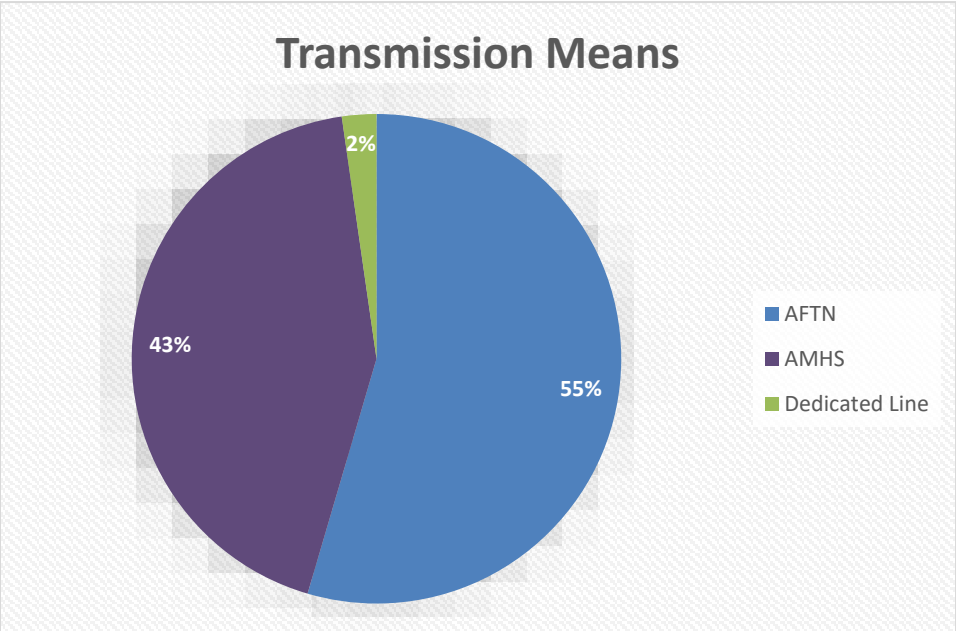

Figure 2 – AIDC Transmission Means in APAC

Based on the data collected currently, 55% of AIDC links in APAC region are carried by AFTN, 43% by AMHS, and 2% by dedicated line.

2.9.3. Communication Signal Speed

According to Pan Regional Interface Control Document (PAN ICD) for ATS Inter-facility Data Communications (AIDC) Chapter 3.3.2.3, the communication signal speed between ATS systems using AFTN/AMHS should be greater than 2400 bps.

It is noted that all the AIDC links in APAC region which provided the information about communication signal speed have met the above mentioned requirements.

2.9.4. Average Transmission Delay (One Trip Time)

According to Pan Regional Interface Control Document (PAN ICD) for ATS Inter-facility Data Communications (AIDC), Average Transmission Delay (seconds) will influence the AIDC performance. In order to effectively use the AIDC application for the interchange of ATC coordination data, ATSUs should monitor the performance of the communication links to ensure the required performance is achieved. This monitoring should measure the latency of the AIDC message traffic between ATS systems in terms of the time measured between message transmission at the originating ATS system and receipt of the message at the receiving ATS system. The performance of the communications links should be such that 95% of all messages should be received within 12 seconds of transmission and 99.9% of all messages should be received within 30 seconds of transmission. In bilateral agreements, ATSUs, may agree on different performance requirements.

From the data collected through the Column “Average Transmission Delay (One Trip Time)”, all the average transmission delays of AIDC messages are less than 10s. However, States/Administrations are reminded to check the transmission delay to meet the performance

requirements of the communications links mentioned above in order not to influence the AIDC performance.

2.9.5. List of AIDC Messages Applicable between the Two ATSUs

According to Asia/Pacific Seamless ANS Plan V3.0, PASL Phase II (expected implementation by 07 November 2019) and APANPIRG/24 CONCLUSION 24/16, ATS systems should enable AIDC (version 3 or later), or an alternative process that achieves at least the same level of performance as AIDC, between en-route ATC units and terminal ATC units where transfers of control are conducted consistent with FICE-B0/1, unless alternate means of automated communication of ATM system track and flight plan data are employed (Priority 1). As far as practicable, the following AIDC messages types should be implemented:

- Advanced Boundary Information (ABI);
- Coordinate Estimate (EST);
- Acceptance (ACP);
- TOC; and
- Assumption of Control (AOC).

Note: States should note the necessity to utilize Logical Acknowledgement Message processing (LAM) when implementing AIDC.

Among data provided by 94 AIDC links, only 40 of them implemented AIDC messages ABI, EST, ACP, TOC, AOC at the same time, which means only 42% of the links meet the requirements in Seamless ANS Plan V3.0 .

2.9.6. Coordination by CDN or Voice (Recoodination/Coordination Negotiation)

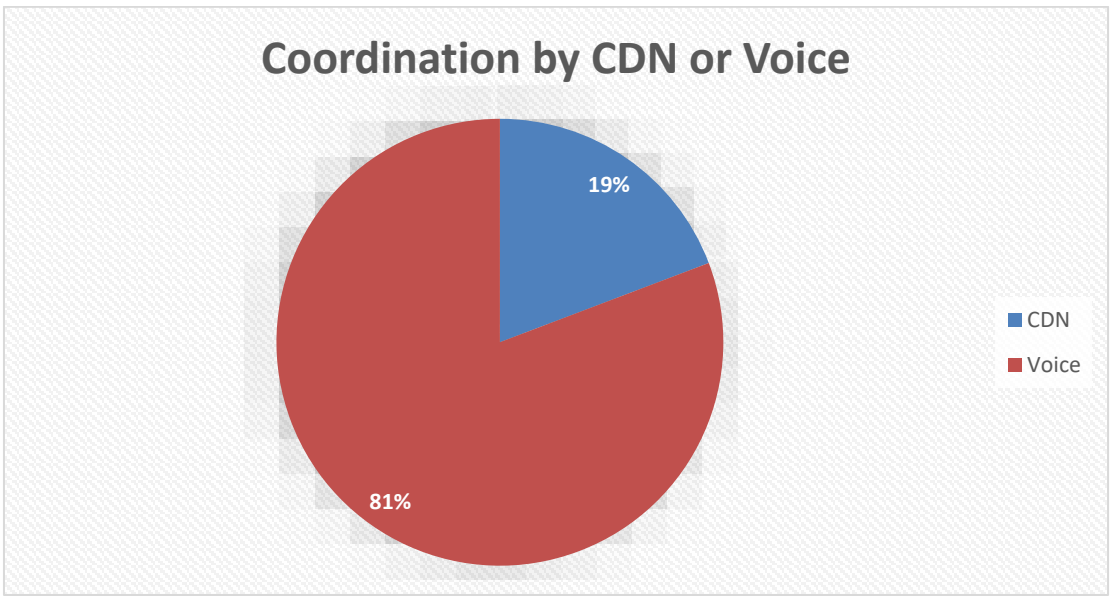

Figure 3 – Coordination by CDN or Voice

It is noted that 81% of AIDC Coordination Negotiations in APAC region are relied on voice, while 19% have coordinated through CDN messages.

2.9.7. AIDC Implementation Plan

Based on the Column of "Implementation Date or Target Date", 17 AIDC links are expected to be implemented in 2023, while for a short-term plan, there will be 14 more links expected to be implemented in 2024 and 2025.

2.9.8. A Warning Message to Controller in Case of AIDC Failure

According to Pan Regional Interface Control Document (PAN ICD) for ATS Interfacility Data Communications (AIDC), failure to receive an operational response within the timeout period T_{op} should result in a warning message being displayed to the controller. Non-receipt of a response to an Application responses (LAM and LRM) status monitoring (ASM) may indicate either a communication link failure or an ATC system failure. If an ATSU that has sent an ASM message does not receive an application response within a specified time, a warning message should be displayed at an appropriate position so that local contingency procedures can be executed.

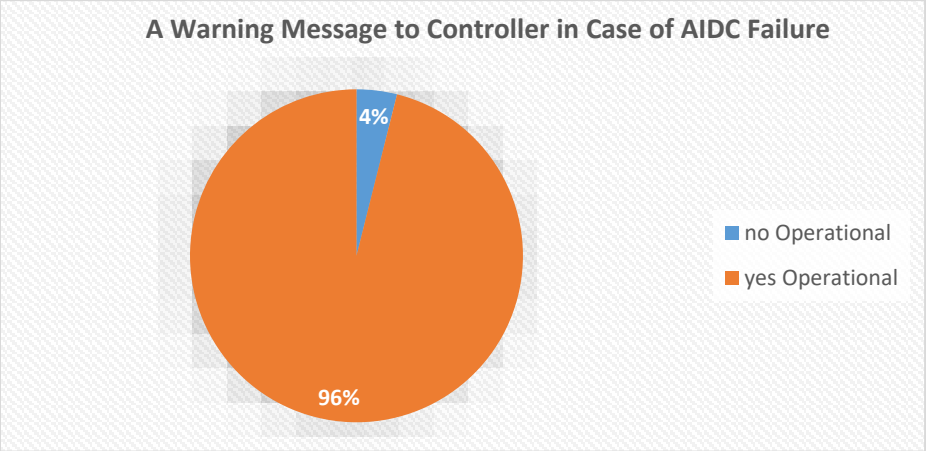

Figure 4 – A Warning Message to Controller in Case of AIDC Failure

Based on the data collected, it is a satisfactory indicator that 96% ATMAS systems are capable to provide an automatic warning message to the controller when an AIDC failure happened. However, there are still 2 AIDC links failure will not be noticed through the automatic warning messages to controllers. As per requirements in PAN ICD, for the new plan to establish AIDC links, it is also reminded to ensure this functionality before the AIDC link is put into operation.

2.10 In order to monitor the AIDC implementation status in APAC region more effectively and have a more comprehensive analysis report, Member States/Administrations are encouraged to continue keeping the ICAO Secretariat updated on the latest AIDC implementation status/progress/plan.

Focal Point for AIDC Implementation

2.11 ACSICG/10 and ATMAS TF/4 meeting also reviewed and updated the focal point for AIDC implementation designated by States/Administrations, which is provided in **Appendix C** to this paper for review and update by the meeting.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information contained in this paper;

b) review and update the information contained in the table of AIDC Implementation Status in APAC region with the latest status in **Appendix B**;

c) note the outcomes of the preliminary analysis of the current AIDC implementation status;

d) review and update the list of focal points for AIDC Implementation in the APAC Region provided in **Appendix C**; and

e) discuss any relevant matter as appropriate

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International Civil Aviation Organization | Organisation de l'aviation civile internationale | Organización de Aviación Civil Internacional | Международная организация гражданской авиации | منظمة الطيران المدني الدولي | 国际民用航空组织

Ref.: T 8/3.5: AP135/22 (CNS) 17 October 2022

Subject: Validate and Supplement the Table of AIDC Implementation Status in APAC Region

Action Required: Reply by **31 January 2023**

Sir/Madam,

ATS Inter-facility Data Communications (AIDC), as an effective automatic message exchange tool, has fostered better collaborative air traffic management between concerned ATSUs of adjacent FIRs, resulting in a decrease in coordination errors and associated decrease in RVSM Large Height Deviation (LHD) occurrences.

I wish to inform you that the Secretariat proposed the table of AIDC Implementation Status in APAC region based on the ICAO APAC e-ANP Volume II *Table CNS II – APAC-1 – ATS Inter-facility Data Communication (AIDC) Implementation Plan* to effectively monitor AIDC implementation status and support REQUIRED statistics and analysis. The Ninth Meeting of the Aeronautical Communications Services (ACS) Implementation Coordination Group (ACSICG/9) held *from 19 to 21 April 2022* and the Third Meeting of the Asia/Pacific Air Traffic Management Automation System Task Force (APAC ATMAS TF/3) held *from 8 to 10 June 2022* have reviewed and adopted the table, which has also been further reviewed by the Twenty-Sixth Meeting of the Communications, Navigation and Surveillance Sub-group (CNS SG/26) held *from 5 to 9 September 2022*, and agreed to circulate it to States/Administrations for validation and supplements.

The table of AIDC Implementation Status in APAC region aims to maintain a common understanding among various contributory bodies of APANPIRG, and eventually build up the regional repository of AIDC Implementation Status. The Secretariat has already incorporated the latest updates provided/reported by States/Administrations into the table attached and I would be grateful if you could validate/supplement the table by referring to the explanation page of the table, and return it to ICAO APAC Regional Office at apac@icao.int with cc to yluo@icao.int and wzhong@icao.int **by 31 January 2023**.

Yours sincerely,

for Tao Ma
Regional Director

Enclosure:
Table of AIDC Implementation Status in APAC Region

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Table of AIDC Implementation Status in APAC

State/Administration	AIDC Implementation Status(Implemented or not)	Location of AIDC System ATSU1	ATM Automation System (Make/Model)	ATSU2 /Correspondent State – Administration	Intraregional/Interregional	Transmission Means	Frequency of Use(days in a week)	Main/Back up Circuit	Communication Signal Speed (bps)	Average Transimission Delay (One Trip Time Seconds)	Implementation Date or Target Date as MON yyyy or xQyyyy	Interface Status (Operational, Testing, Planned, No plan)	Interface Protocol / Version (OLDI or AIDC Version)	List of AIDC Messages Applicable between the Two ATSUs (ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC; TRU, EMG, MIS, TDM, ASM, FAN, FCN; ADS)	Coordination by CDN or Voice	Automatic or Manual EST	A Warning Message to Controller in Case of AIDC Failure	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
State/Administration A	**Implemented**	ATSU 1	Raytheon ATM system	ATSU 2 / State/Administration 2	Intraregional	AMHS	7	Main	9600	2	Nov 2020	Operational	ICD V.3.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC	CDN	Automatic	yes	
				ATSU 3 / State/Administration 3	Interregional	AFTN	2	Backup	4800	3	1Q2001	Operational	OLDI	ABI, EST, ACP, TOC, AOC, LAM, LRM	Voice	Manual	no	
						AMHS	5	Main	9600	2	Jan 2019	Operational	OLDI	ABI, EST, ACP, TOC, AOC, LAM, LRM	Voice	Automatic	no	
AFGHANISTAN		Kabul ACC		Kabul ACC /Afghanistan	Intraregional	AMHS												
				Karachi ACC/Pakistan	Intraregional	AFTN												
AUSTRALIA		Brisbane ACC		Oakland ARTCC /USA	Intraregional	AFTN						Operational						
						AMHS												
				Auckland ACC /New Zealand	Intraregional	AFTN						Operational	ICD V.1.0					
						AMHS												
				Melbourne ACC /Australia	Intraregional	AFTN						Operational						
				Ujung Pandang ACC /Indonesia	Intraregional	AFTN						Operational						
				Nadi ACC /Fiji	Intraregional	AFTN						Operational						
						AMHS						Operational						
				Port Moresby/PNG	Intraregional	AMHS					4Q2018							
		Melbourne ACC		Brisbane ACC /Australia	Intraregional	AFTN						Operational						
						AMHS												
				Jakarta ACC /Indonesia	Intraregional	AFTN						Operational						
						AMHS					4Q2019							
				Mauritius ACC /Mauritius	Interregional	AFTN						Operational						
						AMHS												
BANGLADESH		Dhaka ACC		Kolkata ACC /India	Intraregional	AMHS					4Q2023							Implementation of AIDC is included in the "Modernization of CNS-ATM System of CAAB" project which is going on G2G agreement with French Government and likely to be implemented by the end of 2023.
				Yangon ACC /Myanmar	Intraregional	AMHS					4Q2023		ICD V.2.0					
BHUTAN												No plan						Currently not applicable. If required in the future, will decide after CRV implementation.
BRUNEI DARUSSALAM																		
CAMBODIA		Phnom Penh ACC		Bangkok ACC /Thailand	Intraregional	AMHS					4Q2019	Testing	ICD V.1.0					
				Vientiane ACC/Laos PDR	Intraregional	AFTN						Testing	ICD V.1.0					
				Ho Chi Minh ACC/Viet Nam	Intraregional	AMHS						Testing	ICD V.1.0					
CHINA		Beijing ACC		Ulaanbaatar ACC/Mongolia	Intraregional	AFTN						Testing						
		Sanya ACC		Hong Kong ACC / Hong Kong, China	Intraregional	AFTN					Dec 2007	Operational						
				Hanoi ACC/Vietnam	Intraregional						Dec 2023	Testing						
				Ho Chi Minh ACC /Vietnam	Intraregional	AFTN					Dec 2023	Planned						
		Kunming ACC		Vientiane ACC/Laos PDR	Intraregional						Jan 2021	Operational						
				Yangon ACC /Myanmar	Intraregional	AFTN						Testing						
		Lanzhou ACC		Ulaanbaatar ACC/Mongolia	Intraregional							Planned						
		Lhasa ACC		Kathmandu ACC/Nepal	Intraregional	AFTN												
		Guangzhou ACC		Taibei ACC /China	Intraregional						Jan 2013	Operational						
				Hong Kong ACC / Hong Kong, China	Intraregional	AFTN					May 2018	Operational						
		Taibei ACC		Hong Kong ACC / Hong Kong, China	Intraregional	AFTN						Operational	ICD V.3.0					
				Fukuoka ATMC/Japan	Intraregional	AFTN						Operational						
				Manila ACC/Philippines	Intraregional	AFTN												
		Shenyang ACC		Khabarovsk/Russia	Interregional						Oct 2019	Operational	OLDI					
		Urumqi ACC		Lahore ACC /Pakistan	Intraregional	AMHS												
		Nanning ACC		Hanoi ACC/Vietnam	Intraregional						Dec 2023	Planned						
		Dalian ACC		Incheon ACC /Republic of Korea	Intraregional	AFTN					Oct 2016	Operational	ICD V.3.0 (trial operation)					
		Shanghai ACC		Taibei ACC /China	Intraregional						Jan 2013	Operational						
				Incheon ACC /Republic of Korea	Intraregional						Jun 2023	Planned						
HONG KONG, CHINA		Hong Kong ACC	Raytheon ATM system	Guangzhou ACC /China	Intraregional	AFTN					May 2018	Operational	ICD V.3.0					
				Sanya ACC /China	Intraregional	AFTN					Feb 2007	Operational	ICD V.3.0					
				Manila ACC /Philippines	Intraregional	AFTN					May 2019	Operational	ICD V.3.0					
				Taibei ACC /China	Intraregional	AFTN					Nov 2012	Operational	ICD V.3.0					
MACAO, CHINA		Macao ATZ										No plan						
COOK ISLANDS																		
DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA												Planned						

Table of AIDC Implementation Status in APAC

State/Administration	AIDC Implementation Status(Implemented or not)	Location of AIDC System ATSU1	ATM Automation System (Make/Model)	ATSU2 /Correspondent State – Administration	Intraregional/Interregional	Transmission Means	Frequency of Use(days in a week)	Main/Back up Circuit	Communication Signal Speed (bps)	Average Transimission Delay (One Trip Time Seconds)	Implementation Date or Target Date as MON yyyy or xQyyyy	Interface Status (Operational, Testing, Planned, No plan)	Interface Protocol / Version (OLDI or AIDC Version)	List of AIDC Messages Applicable between the Two ATSUs (ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC; TRU, EMG, MIS, TDM, ASM, FAN, FCN; ADS)	Coordination by CDN or Voice	Automatic or Manual EST	A Warning Message to Controller in Case of AIDC Failure	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
FIJI		Nadi ACC	Adacel ATM system	Auckland ACC /New Zealand	Intraregional	AFTN						Operational	ICD V. 2.0	ABI, EST, ACP, TOC, AOC, CDN, CPL				
				Brisbane ACC /Australia	Intraregional	AFTN						Operational	ICD V.1.0	ABI, EST, ACP, TOC, AOC, CDN, CPL				
				Oakland ARTCC /USA	Intraregional	AFTN						Operational	ICD V. 2.0	ABI, EST, ACP, TOC, AOC, CDN, CPL				
FRANCE FRENCH POLYNESIA NEW CALEDONIA		Papeete ACC	THALES EUROCAT	Auckland ACC /New Zealand	Intraregional	AFTN					2009	Operational	ICD V.3.0					
				Oakland ARTCC /USA	Intraregional	AFTN					2009	Operational	ICD V.3.0					
INDIA		Ahmedabad ACC	INDRA Aircon 2100	Karachi ACC /Pakistan	Intraregional	AFTN						Testing		ABI, EST				
		Chennai ACC	Raytheon Auto track-III +	Colombo ACC / Sri Lanka	Intraregional	AMHS					4Q2018	Planned						
				Jakarta ACC /Indonesia	Intraregional	AFTN					4Q2019	Planned						
				Kuala Lumpur ACC / Malaysia	Intraregional	AFTN					Jan 2021	Operational	ICD V.3.0	ABI, EST, TOC, AOC	Voice			
				Male ACC /Maldives	Intraregional	AFTN					Sep 2021	Operational						
				Yangon ACC /Myanmar	Intraregional	AFTN						Testing	ICD V.2.0					
		Delhi ACC	INDRA Aircon	Karachi ACC /Pakistan	Intraregional	AFTN					1Q2019	No plan						
				Lahore ACC /Pakistan	Intraregional	AFTN						Testing						
		Kolkata ACC	INDRA Aircon	Dhaka ACC /Bangladesh	Intraregional	AMHS					4Q2018	Planned						
				Yangon ACC /Myanmar	Intraregional	AFTN					4Q2018	Testing	ICD V.2.0					
				Kathmandu ACC /Nepal	Intraregional	AFTN												
		Mumbai ACC	Raytheon Auto track-III	Karachi ACC /Pakistan	Intraregional	AMHS					1Q2019	Planned						
				Male ACC /Maldives	Intraregional	AFTN					Nov 2021	Operational						
				Mogadishu ACC/Somalia	Interregional							Testing						
				Muscat ACC /Oman	Interregional	AFTN						Testing						
				Seychelles ACC / Mauritius	Interregional	AFTN												
		Trivandrum ACC	INDRA Aircon 2100	Male ACC/Maldives	Intraregional	AFTN					3Q2018							
		Varanasi ACC	INDRA Aircon 2100	Kathmandu ACC /Nepal	Intraregional	AFTN						Planned						
INDONESIA		Jakarta ACC		Melbourne /Australia	Intraregional	AFTN					2023	Testing						
				Colombo ACC / Sri Lanka	Intraregional	AFTN					2024	Testing						
				Singapore ACC /Singapore	Intraregional	AFTN					2022	Testing	ICD V.3.0					
				Kuala Lumpur ACC / Malaysia	Intraregional	AFTN					2024	Testing	ICD V.3.0					
				Kota Kinabalu ACC /Malaysia	Intraregional	AFTN					2025	Testing						
				Chennai ACC /India	Intraregional	AFTN					2022	Testing						
		Ujung Pandang ACC		Brisbane ACC /Australia	Intraregional	AFTN					July 2017	Operational						
				Oakland ARTCC /USA	Intraregional	AMHS						Planned						
				Port Moresby ACC/ PNG	Intraregional	AFTN					2Q2021	Operational						
				Kota Kinabalu ACC/Malaysia	Intraregional	AFTN						Testing						
				Jakarta ACC /Indonesia	Intraregional						3Q2022	Testing						
				Manila ACC/Philippines	Intraregional	AMHS					4Q 2020	Operational						
JAPAN		Fukuoka ATMC		Manila ACC /Philippines	Intraregional	AMHS					1Q2019							
				Anchorage ACC /USA	Intraregional	AFTN					2005	Operational	ICD V.2.0					
				Incheon ACC /Republic of Korea	Intraregional	AFTN					Jun 2009	Operational	ICD V.1.0					
				Oakland ARTCC /USA	Intraregional	AMHS					May 2017	Operational	ICD V.2.0					
				Shanghai ACC /China	Intraregional	AFTN						Planned						
				Taibei ACC / China	Intraregional	AFTN					2012	Operational	ICD V.3.0					
		Tokyo ACC		Incheon ACC /Republic of Korea	Intraregional						2010	Operational						
		Naha ACC		Taibei ACC / China	Intraregional	AFTN					2012	Operational	ICD V.3.0					
KIRIBATI																		
LAO PEOPLE'S DEMOCRATIC REPUBLIC		Vientiane ACC	THALES	Bangkok ACC /Thailand	Intraregional	AMHS					2020	Operational						
				Hanoi ACC /Veitnam	Intraregional	AMHS						Testing						
				Phnom Penh ACC /Cambodia	Intraregional	AFTN					2020	Operational						
				Yangoon/ Myanmar	Intraregional	AFTN					4Q2018	Testing	ICD V.2.0					
				Kunming ACC /China	Intraregional							Testing						
				Ho Chi Minh/ Vietnam	Intraregional	AMHS												
MALAYSIA		Kuala Lumpur ACC		Bangkok ACC /Thailand	Intraregional	AFTN					Mar 2020	Operational	ICD V.3.0	EST, ACP, LAM, LRM				
				Singapore ACC /Singapore	Intraregional	AFTN					Nov 2019	Operational	ICD V.3.0	EST, ACP, LAM, LRM				
				Chennai ACC /India	Intraregional	AFTN					Apr 2020		ICD V.3.0	ABI, EST, ACP, LAM, LRM, CDN, REJ,MAC,TOC,AOC				
				Ho Chi Minh ACC /Vietnam	Intraregional	AFTN						Planned						
				Jakarta ACC /Indonesia	Intraregional	AFTN						Planned	ICD V.3.0					
		Kota Kinabalu ACC		Ujung Pandang ACC /Indonesia	Intraregional	AFTN						Testing		EST, ACP, LAM, LRM				
				Manila ACC /Philippines	Intraregional	AMHS					4Q2019	Testing		ABI, EST, ACP, LAM, LRM, TOC, AOC, MAC				
				Singapore ACC /Singapore	Intraregional	AMHS					Jul 2021	Operational	ICD V.3.0	EST, ACP, LAM, LRM				
				Jakarta ACC /Indonesia	Intraregional	AFTN						No plan		EST, LAM, LRM , ACP				
		Kuching ACC		Singapore ACC /Singapore	Intraregional	AFTN					Feb 2021	Operational	ICD V.3.0	EST, ACP, LAM, LRM				
				Jakarta ACC /Indonesia	Intraregional							Planned						

Table of AIDC Implementation Status in APAC

State/Administration	AIDC Implementation Status(Implemented or not)	Location of AIDC System ATSU1	ATM Automation System (Make/Model)	ATSU2 /Correspondent State – Administration	Intraregional/Interregional	Transmission Means	Frequency of Use(days in a week)	Main/Back up Circuit	Communication Signal Speed (bps)	Average Transimission Delay (One Trip Time Seconds)	Implementation Date or Target Date as MON yyyy or xQyyyy	Interface Status (Operational, Testing, Planned, No plan)	Interface Protocol / Version (OLDI or AIDC Version)	List of AIDC Messages Applicable between the Two ATSUs (ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC; TRU, EMG, MIS, TDM, ASM, FAN, FCN; ADS)	Coordination by CDN or Voice	Automatic or Manual EST	A Warning Message to Controller in Case of AIDC Failure	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
MALDIVES		Male ACC	SELEX	Mumbai ACC / India	Intraregional	AFTN					3Q2018	Testing						
				Chennai ACC /India	Intraregional	AFTN					3Q2018	Testing						
				Mauritius ACC/Mauritius	Interregional	AFTN												
				Melbourne ACC /Australia	Intraregional						2Q2019							
				Colombo ACC/Sri Lanka	Intraregional	AFTN					2018	Testing						
				Trivandrum ACC/India	Intraregional	AFTN					3Q2018	Testing						
MARSHALL ISLANDS																		
MICRONESIA (FEDERATED STATE OF)																		
MONGOLIA		Ulaanbaatar ACC	INDRA Aircon - 2100	Khabarovsk/Russia	Interregional						2016		OLDI					
				Beijing ACC/ China	Intraregional	AFTN					4Q2022	Testing						
MYANMAR		Yangon ACC	THALES Automation system (Topsky ATC)	Bangkok ACC /Thailand	Intraregional	AMHS					4Q2020	Testing	ICD V.2.0					
				Kolkata ACC /India	Intraregional	AFTN					4Q2018	Testing	ICD V.2.0					Existing ATM system are likely to be upgraded in Lahore and Karachi ACC.
				Chennai ACC /India	Intraregional	AFTN					4Q2018	Testing	ICD V.2.0					
				Kunming ACC /China	Intraregional	AFTN						Testing	ICD V.2.0					
				Vientianne ACC /Lao PDR	Intraregional	AFTN					4Q2018	Testing	ICD V.2.0					
				Dhaka ACC /Bangladesh	Intraregional	AFTN					4Q2018		ICD V.2.0					
NAURU																		
NEPAL		Kathmandu ACC	ATM system from NEC	Kolkata ACC /India	Intraregional	AFTN												
				Varanasi ACC/India	Intraregional	AFTN												
				Lhasa ACC /China	Intraregional	AFTN												
NEW ZEALAND		Auckland ACC	LEIDOS and ADACEL	Brisbane ACC /Australia	Intraregional	AFTN						Operational	ICD V.1.0	ABI, EST, ACP, TOC, AOC				
						AMHS						Operational	ICD V.1.0	ABI, EST, ACP, TOC, AOC				
				Nadi ACC /Fiji	Intraregional	AFTN						Operational	ICD V.1.0					
						AMHS						Operational	ICD V.1.0					
				Oakland ARTCC /USA	Intraregional	AFTN						Operational	ICD V.2.0					
						AMHS						Operational	ICD V.2.0					
				Papeete ACC /French Polynesia	Intraregional	AFTN						Operational	ICD V.2.0					
						AMHS						Operational	ICD V.2.0					
				Chile	Intraregional	AFTN						Operational						
						AMHS						Operational						
PAKISTAN		Karachi ACC	Indra AIRCON 2100 version-2	Mumbai ACC /India	Intraregional	AFTN					2018	Planned						
				Muscat ACC /Oman	Interregional	AFTN												
				Tehran ACC /Iran	Interregional	AFTN												
				Delhi ACC /India	Intraregional	AFTN						No plan						
				Ahmadabad ACC /India	Intraregional	AFTN					4Q2018	Planned						
				Kabul ACC /Afghanistan	Intraregional	AFTN												
		Lahore ACC	Indra AIRCON 2100 version-2	Delhi ACC /India	Intraregional	AFTN						Testing						
				Urumqui ACC /China	Intraregional	AMHS												
				Tajakistan ACC /Tajakistan	Interregional	AFTN												
PALAU																		
PAPUA NEW GUINEA		Port Moresby	Thales (TopSky-ATC)	Brisbane ACC/Australia	Intraregional	AMHS						Operational	ICD V.3.0					
				Ujung Pandang ACC/Indonesia	Intraregional	AFTN						Planned	ICD V.3.0					
				Oakland ARTCC /USA	Intraregional	AFTN						Testing	ICD V.3.0					
PHILIPPINES		Manila ACC	THALES	Hong Kong ACC / Hong Kong, China	Intraregional	AFTN												
					Intraregional	AMHS					May 2019	Operational						
				Singapore ACC /Singapore	Intraregional	AMHS					Dec 2020	Operational						
				Taibei ACC/China	Intraregional	AFTN												
					Intraregional	AMHS					Dec 2019	Operational						
				Kota Kinabalu ACC /Malaysia	Intraregional	AMHS						Testing						
				Ho Chi Minh ACC /Viet Nam	Intraregional	AMHS						Testing						
				Oakland ARTCC /USA	Intraregional	AMHS						Planned						
				Fukoka ATMC /Japan	Intraregional	AMHS					1Q2019							
				Ujung Pandang ACC /Indonesia	Intraregional	AMHS					Dec 2020	Operational						
REPUBLIC OF KOREA		Incheon ACC	Rockheed Martin System	Fukoka ATMC /Japan	Intraregional	AFTN					2010	Operational	ICD V.1.0					
				Shanghai ACC/China	Intraregional						2Q2023	Planned						
				Dalian ACC /China	Intraregional	AFTN					Nov 2016	Operational	ICD V.3.0 (Trial operation)					
SAMOA																		
SINGAPORE		Singapore ACC	THALES	Ho Chi Minh ACC /Vietnam	Intraregional	AMHS					Jul 2014	Operational						
				Manila ACC /Philippines	Intraregional	AMHS					Nov 2019	Operational	ICD V.1.0					
				Jakarta ACC /Indonesia	Intraregional	AMHS						Planned	ICD V.3.0					
				Kuala Lumpur ACC /Malaysia	Intraregional	AMHS					Nov 2019	Operational	ICD V.3.0					
				Kota Kinabalu ACC /Malaysia	Intraregional	AMHS					Jul 2021	Operational	ICD V.3.0					
				Kuching ACC /Malaysia	Intraregional	AMHS					Feb 2021	Operational	ICD V.3.0					
SOLOMON ISLANDS				Nadi ACC /Fiji	Intraregional													
				Port Moresby ACC/PNG	Intraregional													

Table of AIDC Implementation Status in APAC

State/Administration	AIDC Implementation Status(Implemented or not)	Location of AIDC System ATSU1	ATM Automation System (Make/Model)	ATSU2 /Correspondent State – Administration	Intraregional/Interregional	Transmission Means	Frequency of Use(days in a week)	Main/Back up Circuit	Communication Signal Speed (bps)	Average Transimission Delay (One Trip Time Seconds)	Implementation Date or Target Date as MON yyyy or xQyyyy	Interface Status (Operational, Testing, Planned, No plan)	Interface Protocol / Version (OLDI or AIDC Version)	List of AIDC Messages Applicable between the Two ATSUs (ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC; TRU, EMG, MIS, TDM, ASM, FAN, FCN; ADS)	Coordination by CDN or Voice	Automatic or Manual EST	A Warning Message to Controller in Case of AIDC Failure	Remarks
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
ISLANDS				Brisbane ATSC /Australia	Intraregional													
SRI LANKA		Colombo ACC	INTELCAN	Male ACC /Maldives	Intraregional	AMHS						Planned						
				Jakarta ACC / Indonesia	Intraregional	AMHS					4Q2019							
				Melbourne ACC /Australia	Intraregional							Planned						
				Chennai ACC /India	Intraregional	AMHS					2018	Testing						
THAILAND		Bangkok ACC	THALES	Kuala Lumpur ACC /Malaysia	Intraregional	AFTN					Mar 2020	Operational	ICD V.3.0					
				Phnom Penh ACC /Cambodia	Intraregional	AMHS					Feb 2021	Operational						
				Vientiane ACC /Lao PDR	Intraregional	AMHS					Jul 2020	Operational						
				Yangon ACC /Myanmar	Intraregional	AMHS						Planned						
TIMOR LESTE																		
TONGA																		
TUVALU																		
VANUATU																		
UNITED STATES		Oakland ARTCC		Anchorage ARTCC /United States	Intraregional	AFTN						Operational	ICD V.2.0					
				Auckland OAC /New Zealand	Intraregional	AFTN						Operational	ICD V.2.0					
				Fukuoka ATMC /Japan	Intraregional	AFTN						Operational	ICD V.2.0					
				Nadi ATMC /Fiji	Intraregional	AFTN						Operational	ICD V.2.0					
				Brisbane ACC /Australia	Intraregional	AFTN						Operational	ICD V.2.0					
				Tahiti ACC /French Polynesia	Intraregional	AFTN						Operational	ICD V 2.0					
				Port Moresby/PNG	Intraregional	AFTN												
				Manila /Philippines	Intraregional	AMHS					1Q2019							
		Anchorage ARTCC		Ujung Padang/Indonesia	Intraregional	AMHS												
				Fukuoka ATMC /Japan	Intraregional	AFTN						Operational	ICD V.2.0					
				Oakland ARTCC /United States	Intraregional	AFTN						Operational	ICD V.2.0					
VIET NAM		Ho Chi Minh ACC	THALES	Sanya ACC /China	Intraregional	AFTN												
					Intraregional	AMHS												
				Phnom Penh ACC /Cambodia	Intraregional	AMHS						Testing						
				Vientiane ACC /Lao PDR	Intraregional	AMHS												
				Singapore ACC /Singapore	Intraregional	AMHS					Jul 2014	Operational	ICD V.1.0					
				Manila /Philippines	Intraregional	AFTN						Testing						
				Kuala Lumpur /Malaysia	Intraregional	AFTN												
		Hanoi ACC	Selex	Vientiane ACC/Lao PDR	Intraregional	AMHS						Testing						

**TABLE OF ATS INTER-FACILITY DATA COMMUNICATION (AIDC)
IMPLEMENTATION STATUS IN APAC REGION**

Explanation of the Table

Column	Element	Explanation	Reason
1	State/Administration	Name of the State/Administration	
2	AIDC Implementation Status (Implemented or not)	AIDC has been implemented in the State/Administration or not (States have the technical capability implemented and at least one bilateral connection with adjacent ATS units in operational use will be regarded as implemented)	
3	Location of AIDC System ATSU1	the location of the AIDC end system under the supervision of State/Administration identified in column 1	
4	ATM Automation System	Make/Model of the ATM automation system used in this ATSU	
5	ATSU2 /Correspondent State/Administration – the correspondent AIDC System	ATSU2 – location of the correspondent AIDC end system Correspondent State/Administration – the name of the State/Administration responsible for management of the correspondent AIDC end system A "/" is placed between the ATSU2 and State/Administration	
6	Intraregional/Interregional	the connection is intraregional (inside APAC) or interregional	
7	Transmission Means	the transmission means used for the AIDC messages exchanged between the corresponding AIDC pair, AFTN, AMHS, etc.	The carriage of AIDC messages is facilitated through existing communication network (e.g. AFTN, AMHS, etc.). The type of network that will be used for AIDC message exchange will need to be defined, including the appropriate recovery/ contingency actions that will be adopted in abnormal situations
8	Frequency of Use (days in a week)	days of AIDC used in a week	to indicate how frequently the AIDC interface has been used
9	Main/Backup Circuit	the circuit is main or backup AIDC connection	if there is two circuits between the two ATSUs, it's better to identify which is main or backup
10	Communication Signal Speed	the communication signal speed for the AIDC messages exchanged (bps)	According to Pan Regional Interface Control Document (PAN ICD) for ATS Inter-facility Data Communications (AIDC) chapter 3.3.2.3, the communication signal speed between ATS systems using AFTN/AMHS should be greater than 2400 bps
11	Average Transmission Delay (One Trip Time Seconds)	the average transmission delay for exchanging AIDC messages	According to Pan Regional Interface Control Document (PAN ICD) for ATS Inter-facility Data Communications (AIDC), Average Transmission Delay (seconds) will influence the AIDC performance. In order to effectively use the AIDC application for the interchange of ATC coordination data, ATSUs should monitor the performance of the communication links to ensure the required performance is achieved. This monitoring should measure the latency of the AIDC message traffic between ATS systems in terms of the time measured between message transmission at the originating ATS system and receipt of the message at the receiving ATS system. The performance of the communications links should be such that 95% of all messages should be received within 12 seconds of transmission and 99.9% of all messages should be received within 30 seconds of transmission. In bilateral agreements, ATSUs, may agree on different performance requirements
12	Implementation Date or Target Date	date of implementation of the AIDC end system in the form of xQyyyy(quarter year), MON yyyy (Month) or yyyy	
13	Interface Status	the AIDC interface status, including Operational (already implemented), Testing (under progressing), Planned (under plan), No plan	
14	Interface Protocol /Version (OLDI or AIDC Version)	the AIDC service between the corresponding ATSUs	to show which AIDC version used and supported between two ATSUs and refer to Reason under Item 15

TABLE OF ATS INTER-FACILITY DATA COMMUNICATION (AIDC) IMPLEMENTATION STATUS IN APAC REGION			
Explanation of the Table			
15	List of AIDC Messages Applicable between the Two ATSUs	the AIDC messages can be exchanged between the two ATSUs, including ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC; TRU, EMG, MIS, TDM, ASM, FAN, FCN; ADS	According to Asia/Pacific Seamless ANS Plan V3.0, PASL Phase II (expected implementation by 07 November 2019) and APANPIRG/24 CONCLUSION 24/16, ATS systems should enable AIDC (version 3 or later), or an alternative process that achieves at least the same level of performance as AIDC, between en-route ATC units and terminal ATC units where transfers of control are conducted consistent with FICE-B0/1, unless alternate means of automated communication of ATM system track and flight plan data are employed (Priority 1). As far as practicable, the following AIDC messages types should be implemented: • Advanced Boundary Information (ABI); • Coordinate Estimate (EST); • Acceptance (ACP); • TOC; and • Assumption of Control (AOC). Note: States should note the necessity to utilise Logical Acknowledgement Message processing (LAM) when implementing AIDC
16	Coordination by CDN or Voice	the method used in coordination phase	to show if the AIDC process a totally automatic or not
17	Automatic or Manual EST	the EST is sent out automatically or manually	to evaluate the automatic level of AIDC
18	A Warning Message to Controller in Case of AIDC Failure	the warning message for AIDC failure is capable or not	According to Pan Regional Interface Control Document (PAN ICD) for ATS Interfacility Data Communications (AIDC), failure to receive an operational response within timeout period Top should result in a warning message being displayed to the controller. Non receipt of a response to an ASM may indicate either a communication link failure or an ATC system failure. If an ATSU that has sent an ASM message does not receive an application response within a specified time, a warning message should be displayed at an appropriate position so that local contingency procedures can be executed
19	Remarks	any additional information describing the AIDC connection, including issues faced if any, mitigation, and limitation	

Table of AIDC Implementation Status in APAC

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
AFGHANISTAN	**non-implemented**	Kabul ACC		Kabul ACC /Afghanistan	Intraregional	AMHS												
				Karachi ACC/Pakistan	Intraregional	AFTN												
AUSTRALIA	**Implemented**	Brisbane ACC	Thales ATM system	Oakland ARTCC /USA	Interregional	AFTN	7					Operational	ICD V.X.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, CDN, REJ, MAC, CPL	CDN	Automatic	yes	Up- and down conversion of AMHS and AFTN required as connection between Australian ATM system and national Message Transfer Agent is X25/AFTN.
				Auckland ACC /New Zealand	Intraregional	AFTN	7					Operational	ICD V.X.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, CDN, REJ, MAC, CPL, PAC	CDN	Automatic	yes	
				Melbourne ACC /Australia	Intraregional	AFTN	7					Operational	ICD V.X.0	ABI, ACP, AOC, EST, LAM, LRM, MAC, PAC, TOC	Voice	Automatic	yes	
				Ujung Pandang ACC /Indonesia	Intraregional	AFTN	7					Operational	ICD V.X.0	ABI, ACP, AOC, EST, LAM, LRM, MAC, TOC	Voice	Automatic	yes	
				Nadi ACC /Fiji	Intraregional	AFTN	7					Operational	ICD V.X.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, CDN, REJ, MAC, CPL, PAC	CDN	Automatic		
				Port Moresby/PNG	Intraregional	AFTN	7					Operational	ICD V.X.0	ABI, EST, ACP, TOC, AOC, LAM, LRM	Voice	Automatic	yes	
		Melbourne ACC	Thales ATM system	Brisbane ACC /Australia	Intraregional	AFTN	7					Operational	ICD V.X.0	ABI, ACP, AOC, EST, LAM, LRM, MAC, PAC, TOC	Voice	Automatic	yes	
				Colombo ACC / Sri Lanka	Intraregional	AFTN	N/A					No plan		N/A				
				Jakarta ACC /Indonesia	Intraregional	AFTN	N/A					No plan		N/A				
				Johannesburg ACC / South Africa	Interregional	AFTN	7					Operational	ICD V.X.0	EST, ACP, LAM, LRM	Voice	Automatic	yes	
				Male ACC / Maldives	Intraregional	AFTN	7					Operational	ICD V.X.0	ABI, ACP, EST, LAM, LRM	Voice	Automatic	yes	
				Mauritius ACC /Mauritius	Interregional	AFTN	7					Operational	ICD V.X.0	ABI, ACP, AOC, CPL, EST, LAM, PAC, TOC, LRM	Voice	Automatic	yes	
				Auckland ACC /New Zealand	Intraregional	AFTN	7					Operational	ICD V.X.0	ABI, EST, ACP, TOC, AOC, LAM, LRM	Voice	Automatic	yes	
BANGLADESH	non-implemented	Dhaka ACC		Kolkata ACC /India	Intraregional	AMHS					4Q2023							Implementation of AIDC is included in the "Modernization of CNS-ATM System of CAAB" project which is going on G2G agreement with French Government and likely to be implemented by the end of 2023.
				Yangon ACC /Myanmar	Intraregional	AMHS					4Q2023		ICD V.2.0					
BHUTAN	non-implemented											No plan						Currently not applicable. If required in the future, will decide after CRV implementation.
BRUNEI DARUSSALAM	non-implemented																	
CAMBODIA	Implemented	Phnom Penh ACC	THALES	Bangkok ACC /Thailand	Intraregional	AMHS	7	Main	64000		Oct 2020	Operational	ICD V.2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM	Voice	Automatic	yes	
				Vientiane ACC/Laos PDR	Intraregional	AMHS	7	Main	5Mbps		Jan 2020	Operational	ICD V.2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM	Voice	Automatic	yes	
				Ho Chi Minh ACC/Viet Nam	Intraregional	AFTN						Testing	ICD V.1.0	EST, ACP, TOC, AOC, LRM, LAM				Technical Trial was completed
CHINA		Beijing ACC	THALES	Ulaanbaatar ACC/Mongolia	Interregional	AFTN					Dec 2023	Testing		EST, ACP, TOC, AOC, LRM, LAM				
		Sanya ACC	NUMEN	Hong Kong ACC / Hong Kong, China	Intraregional	AFTN					Dec 2007	Operational	ICD V.3.0	EST, ACP, TOC, AOC, LRM, LAM		Automatic	yes	
				Hanoi ACC/Vietnam	Intraregional	AFTN					Dec 2023	Testing		EST, ACP, TOC, AOC, LRM, LAM				
				Ho Chi Minh ACC /Vietnam	Intraregional	AFTN					Dec 2023	Planned		EST, ACP, TOC, AOC, LRM, LAM				
		Kunming ACC	NUMEN	Vientiane ACC/Laos PDR	Interregional						Jan 2021	Operational	ICD V.3.0	EST, ACP, TOC, AOC, LRM, LAM		Automatic	yes	
				Yangon ACC /Myanmar	Intraregional	AFTN						Testing		EST, ACP, TOC, AOC, LRM, LAM				
		Lanzhou ACC	NUMEN	Ulaanbaatar ACC/Mongolia	Intraregional	AFTN					Dec 2023	Planned		EST, ACP, TOC, AOC, LRM, LAM				
		Lhasa ACC		Kathmandu ACC/Nepal	Interregional	AFTN												

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
CHINA	Implemented	Guangzhou ACC	THALES	Taibei ACC /China	Intraregional						Jan 2013	Operational	ICD V.3.0	EST, ACP, TOC, AOC, LRM, LAM		Automatic	yes	
				Hong Kong ACC / Hong Kong, China	Intraregional	AFTN					May 2018	Operational	ICD V.3.0	EST, ACP, TOC, AOC, LRM, LAM		Automatic	yes	
		Taibei ACC		Hong Kong ACC / Hong Kong, China	Intraregional	AFTN						Operational	ICD V.3.0					
				Fukuoka ATMC/Japan	Interregional	AFTN						Operational						
				Manila ACC/Philippines	Interregional	AFTN												
		Shenyang ACC	NUMEN	Khabarovsk/Russia	Interregional						Oct 2019	Operational	OLDI	ABI, ACT, MAC, HOP, ACP, LAM, and LRM		Automatic	yes	
		Urumqi ACC	NUMEN	Lahore ACC /Pakistan	Intraregional	AMHS												
		Nanning ACC	NUMEN	Hanoi ACC/Vietnam	Intraregional						Dec 2023	Planned						
		Dalian ACC	NUMEN	Incheon ACC /Republic of Korea	Interregional						Oct 2016	Operational	ICD V.3.0 (trial opera	ABI, EST, ACP, TOC, AOC, LRM, LAM		Automatic	yes	
		Shanghai ACC	NUMEN	Taibei ACC /China	Intraregional						Jan 2013	Operational	ICD V.3.0	LAM		Automatic	yes	
HONG KONG, CHINA	Implemented	Hong Kong ACC	Raytheon ATM system	Guangzhou ACC /China	Intraregional	AFTN	7	Main	2400	4	May 2018	Operational	ICD V.3.0	EST, ACP, TOC, AOC, LAM, LRM	Voice	Automatic	yes	
				Sanya ACC /China	Intraregional	AFTN	7	Main	2400	4	Feb 2007	Operational	ICD V.3.0	EST, ACP, TOC, AOC, LAM, LRM	Voice	Automatic	yes	
				Manila ACC /Philippines	Intraregional	AMHS	7	Main	up to 2M on C	1	May 2019	Operational	ICD V.3.0	EST, ACP, LAM, LRM	Voice	Automatic	yes	
				Taibei ACC /China	Intraregional	AMHS	7	Main	up to 2M on C	1	Nov 2012	Operational	ICD V.3.0	EST, ACP, TOC, AOC, LAM, LRM	Voice	Automatic	yes	
MACAO, CHINA	non-implemented	Macao ATZ										No plan						
COOK ISLANDS	non-implemented																	
DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	non-implemented											Planned						
FIJI	Implemented	Nadi ACC	Adacel ATM system	Auckland ACC /New Zealand	Intraregional	AFTN						Operational	ICD V. 2.0	ABI, EST, ACP, TOC, AOC, CDN, CPL				
				Brisbane ACC /Australia	Intraregional	AFTN						Operational	ICD V.1.0	ABI, EST, ACP, TOC, AOC, CDN, CPL				
				Oakland ARTCC /USA	Intraregional	AFTN						Operational	ICD V. 2.0	ABI, EST, ACP, TOC, AOC, CDN, CPL				
FRANCE FRENCH POLYNESIA, NEW CALEDONIA	Implemented	Papeete ACC	THALES EUROCAT	Auckland ACC /New Zealand	Intraregional	AFTN					2009	Operational	ICD V.3.0					
				Oakland ARTCC /USA	Intraregional	AFTN					2009	Operational	ICD V.3.0					
INDIA	Implemented	Ahmedabad ACC	INDRA Aircon 2100	Karachi ACC /Pakistan	Intraregional	AFTN						Testing		ABI, EST				
		Chennai ACC	Raytheon Auto track-III +	Colombo ACC / Sri Lanka	Intraregional	AMHS					4Q2018	Planned						
				Jakarta ACC /Indonesia	Intraregional	AFTN					4Q2019	Planned						
				Kuala Lumpur ACC / Malaysia	Intraregional	AFTN					Jan 2021	Operational	ICD V.3.0	ABI, EST, TOC, AOC	Voice			
				Male ACC /Maldives	Intraregional	AFTN					Sep 2021	Operational						
				Yangon ACC /Myanmar	Intraregional	AFTN						Testing	ICD V.2.0					
		Delhi ACC	INDRA Aircon	Karachi ACC /Pakistan	Intraregional	AFTN					1Q2019	No plan						
				Lahore ACC /Pakistan	Intraregional	AFTN						Testing						
		Kolkata ACC	INDRA Aircon	Dhaka ACC /Bangladesh	Intraregional	AMHS					4Q2018	Planned						
				Yangon ACC /Myanmar	Intraregional	AFTN					4Q2018	Testing	ICD V.2.0					
				Kathmandu ACC /Nepal	Intraregional	AFTN												
		Mumbai ACC	Raytheon Auto track-III	Karachi ACC /Pakistan	Intraregional	AMHS					1Q2019	Planned						
				Male ACC /Maldives	Intraregional	AFTN					Nov 2021	Operational						
				Mogadishu ACC/Somalia	Interregional							Testing						
				Muscat ACC /Oman	Interregional	AFTN						Testing						
				Seychelles ACC / Mauritius	Interregional	AFTN												
		Trivandrum ACC	INDRA Aircon 2100	Male ACC/Maldives	Intraregional	AFTN					3Q2018							

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		Varanasi ACC	INDRA Aircon 2100	Kathmandu ACC /Nepal	Intraregional	AFTN						Planned						
INDONESIA	Implemented	Jakarta ACC		Melbourne /Australia	Intraregional	AFTN					2023	Testing						
				Colombo ACC / Sri Lanka	Intraregional	AFTN					2024	Testing						
				Singapore ACC /Singapore	Intraregional	AFTN					2022	Testing	ICD V.3.0					
				Kuala Lumpur ACC / Malaysia	Intraregional	AFTN					2024	Testing	ICD V.3.0					
				Kota Kinabalu ACC /Malaysia	Intraregional	AFTN					2025	Testing						
				Chennai ACC /India	Intraregional	AFTN					2022	Testing						
		Ujung Pandang ACC		Brisbane ACC /Australia	Intraregional	AFTN					July 2017	Operational						
				Oakland ARTCC /USA	Intraregional	AMHS						Planned						
				Port Moresby ACC/ PNG	Intraregional	AFTN					2Q2021	Operational						
				Kota Kinabalu ACC/Malaysia	Intraregional	AFTN						Testing						
				Jakarta ACC /Indonesia	Intraregional						3Q2022	Testing						
				Manila ACC/Philippines	Intraregional	AMHS					4Q 2020	Operational						
JAPAN	Implemented	Fukuoka ATMC	NEC	Anchorage ARTCC / USA	Intraregional	AMHS			2M		2005	Operational	ICD V.2.0					
				Oakland ARTCC / USA	Intraregional	AMHS					May 2017	Operational	ICD V.2.0					
		Tokyo ACC	NTTD	Incheon ACC / Republic of Korea	Intraregional				64K		2010	Operational	ICD V.1.0					
				Daegu ACC / Republic of Korea	Intraregional						Feb 2021	Operational	ICD V.1.0					
		Kobe ACC		Daegu ACC / Republic of Korea	Intraregional						Feb 2021	Operational	ICD V.1.0					
		Fukuoka ACC		Incheon ACC / Republic of Korea	Intraregional						2010	Operational	ICD V.1.0					
				Daegu ACC / Republic of Korea	Intraregional						Feb 2021	Operational	ICD V.1.0					
				Taibei ACC / China	Intraregional				64K		2012	Operational	ICD V.3.0					
KIRIBATI	non-implemented																	
LAO PEOPLE'S DEMOCRATIC REPUBLIC	Implemented	Vientiane ACC	THALES TOPSKY (EUROCAT-C)	Bangkok ACC /Thailand	Intraregional	AMHS	7	Main	9600		14-Jul-20	Operational	ICD V.2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM	CDN	Automatic	no	
				Hanoi ACC /Veitnam	Intraregional	AFTN	7	Main	9600		2Q2023	Planned	ICD V.2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM				
				Phnom Penh ACC /Cambodia	Intraregional	AFTN	7	Main	9600		2-Jan-20	Operational	ICD V.2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM	CDN	Automatic	no	
				Yangoon/ Myanmar	Intraregional	AFTN	7	Main	9600		4Q2023	Planned	ICD V.2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM				
				Kunming ACC /China	Intraregional	AFTN	7	Main	9600		1Q2023	Testing	ICD V.2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM	CDN	Automatic	no	
				Ho Chi Minh/ Vietnam	Intraregional	AFTN	7	Main	9600		3Q2023	Planned	ICD V.2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM				
MALAYSIA	Implemented	Kuala Lumpur ACC	LEONARDO	Bangkok ACC /Thailand	Intraregional	AMHS	7	Main	9600	7	Mar 2020	Operational	ICD V.3.0	EST, ACP, LAM, LRM	Voice	Automatic	yes	
				Singapore ACC /Singapore	Intraregional	AMHS	7	Main	9600	7	Nov 2019	Operational	ICD V.3.0	EST, ACP, LAM, LRM	Voice	Automatic	yes	
				Chennai ACC /India	Intraregional	AMHS	7	Main	9600	7	Apr 2020	Operational	ICD V.3.0	ABI, EST, ACP, LAM, LRM, CDN, REJ,MAC,TOC,AOC	CDN	Automatic	yes	
				Ho Chi Minh ACC /Vietnam	Intraregional	AMHS	7	Main	TBA	TBA	3Q2024	Planned	ICD V.3.0	EST, ACP, LAM, LRM, TOC, AOC	Voice	Automatic	yes	
				Jakarta ACC /Indonesia	Intraregional	AMHS	7	Main	TBA	TBA	3Q2024	Planned	ICD V.3.0	EST, ACP, LAM, LRM, TOC, AOC	Voice	Automatic	yes	
		Kota Kinabalu ACC	THALES	Ujung Pandang ACC /Indonesia	Intraregional	AMHS	7	Main	TBA	TBA	2Q2024	Planned	ICD V.3.0	EST, ACP, LAM, LRM, TOC, AOC	Voice	Automatic	yes	
				Manila ACC /Philippines	Intraregional	AMHS	7	Main	TBA	TBA	3Q2024	Planned	ICD V.3.0	EST, ACP, LAM, LRM, TOC, AOC	Voice	Automatic	yes	
				Singapore ACC /Singapore	Intraregional	AMHS	7	Main	9600	1	Jul 2021	Operational	ICD V.3.0	EST, ACP, LAM, LRM	Voice	Automatic	yes	
											2Q2024	Planned	ICD V.3.0	TOC, AOC	Voice	Automatic	yes	
				Jakarta ACC /Indonesia	Intraregional	AMHS	7	Main	TBA	TBA	3Q2024	Planned	ICD V.3.0	EST, ACP, LAM, LRM, TOC, AOC	Voice	Automatic	yes	
				Singapore ACC /Singapore	Intraregional	AMHS	7	Main	9600	1	Feb 2021	Operational	ICD V.3.0	EST, ACP, LAM, LRM	Voice	Automatic	yes	

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
		Kuching ACC	THALES	Singapore ACC /Singapore	Intraregional	AMHS	7	Main	9600	1	2Q2024	Planned	ICD V.3.0	TOC, AOC	Voice	Automatic	yes	
				Jakarta ACC /Indonesia	Intraregional	AMHS	7	Main	TBA	TBA	3Q2024	Planned	ICD V.3.0	EST, ACP, LAM, LRM, TOC, AOC	Voice	Automatic	yes	
MALDIVES	Implemented	Male ACC	LEONARDO	Mumbai ACC / India	Intraregional	AFTN	7	Main			3Q2021	Operational	ICD V.3.0	ABI, EST, ACP, LAM, LRM, TOC, AOC	Voice	Automatic	yes	
				Chennai ACC /India	Intraregional	AFTN	7	Main			3Q2021	Operational	ICD V.3.0	ABI, EST, ACP, LAM, LRM, TOC, AOC	Voice	Automatic		
				Mauritius ACC/Mauritius	Interregional	AFTN						No plan						
				Melbourne ACC /Australia	Intraregional	AFTN	7	Main			TBA	Testing	ICD V.3.0		Voice			
				Colombo ACC/Sri Lanka	Intraregional	AFTN		Main	64K		TBA	Testing	ICD V.3.0		Voice			Colombo AIDC connection temporarily disabled due to request from VCCC
				Trivandrum ACC/India	Intraregional	AFTN	7	Main			3Q2021	Operational	ICD V.3.0	ABI, EST, ACP, LAM, LRM, TOC, AOC	Voice			
MARSHALL ISLANDS	non-implemented																	
MICRONESIA (FEDERATED STATE OF)	non-implemented																	
MONGOLIA	Implemented	Ulaanbaatar ACC	INDRA Aircon - 2100	Khabarovsk/Russia	Interregional						2016		OLDI					
				Beijing ACC/ China	Intraregional	AFTN					4Q2022	Testing						
MYANMAR	Testing	Yangon ACC	THALES Automation system (Topsky ATC)	Bangkok ACC /Thailand	Intraregional	AMHS					4Q2020	Testing	ICD V.2.0					
				Kolkata ACC /India	Intraregional	AFTN					4Q2018	Testing	ICD V.2.0					Existing ATM system are likely to be upgraded in Lahore and Karachi ACC.
				Chennai ACC /India	Intraregional	AFTN					4Q2018	Testing	ICD V.2.0					
				Kunming ACC /China	Intraregional	AFTN						Testing	ICD V.2.0					
				Vientianne ACC /Lao PDR	Intraregional	AFTN					4Q2018	Testing	ICD V.2.0					
				Dhaka ACC /Bangladesh	Intraregional	AFTN					4Q2018		ICD V.2.0					
NAURU	non-implemented																	
NEPAL	non-implemented	Kathmandu ACC	ATM system from NEC	Kolkata ACC /India	Intraregional	AFTN												
				Varanasi ACC/India	Intraregional	AFTN												
				Lhasa ACC /China	Intraregional	AFTN												
NEW ZEALAND	Implemented	Auckland ACC	LEIDOS and ADACEL	Brisbane ACC /Australia	Intraregional	AFTN						Operational	ICD V.1.0	ABI, EST, ACP, TOC, AOC				
						AMHS						Operational	ICD V.1.0	ABI, EST, ACP, TOC, AOC				
				Nadi ACC /Fiji	Intraregional	AFTN						Operational	ICD V.1.0					
						AMHS						Operational	ICD V.1.0					
				Oakland ARTCC /USA	Intraregional	AFTN						Operational	ICD V.2.0					
						AMHS						Operational	ICD V.2.0					
				Papeete ACC /French Polynesia	Intraregional	AFTN						Operational	ICD V.2.0					
						AMHS						Operational	ICD V.2.0					
				Chile	Intraregional	AFTN						Operational						
						AMHS						Operational						
		Karachi ACC	Indra AIRCON 2100	Mumbai ACC /India	Intraregional	AMHS	7	Main	128 & 64Kbps		Jun 2025	Testing	ICD Version 2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC	Voice	Automatic	Yes	*Trial run carried out between Karachi and Ahmedabad. Partial connectivity between both systems is observed and Some issues regarding the auto acceptance of EST messages in Karachi ATM need to be addressed *Trial run between Karachi and Mumbai was remained unsuccessful due to integration problems. * Trial run carried out between Lahore and Delhi ACCs in March 2021. Delhi ATM system rejects the ABI messages due to adding double space in FPL by Lahore ATM system (East bound Flights).
				Muscat ACC /Oman	Interregional	AFTN	7	Main	64Kbps		Jun 2025	No Plan	ICD Version 2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC	Voice	Automatic	Yes	
				Tehran ACC /Iran	Interregional	AFTN	7	Main	1 Mbps		Jun 2025	No Plan	ICD Version 2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC	Voice	Automatic	Yes	
				Ahmadabad ACC /India	Intraregional	AMHS	7	Main	Via Mumbai AMHS		Jun 2025	Testing	ICD Version 2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC	Voice	Automatic	Yes	
				Kabul ACC /Afghanistan	Intraregional	AFTN	7	Main	1Mbps		Jun 2025	No Plan	ICD Version 2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC	Voice	Automatic	Yes	
		Lahore ACC	Indra AIRCON	Delhi ACC /India	Intraregional	AMHS	7	Main	VIA Mumbai AHMS		Jun 2025	Testing	ICD Version 2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC	Voice	Automatic	Yes	

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
PAKISTAN	Testing	Lahore ACC	2100	Kabul ACC /Afghanistan	Intraregional	AFTN	7	Main	1 Mbps via Karachi AMHS		Jun 2025	No Plan	ICD Version 2.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC	Voice	Automatic	Yes	system (Date Delhi Flight). Lahore ATM does not genenerate ACP message in responce to ABI message sent by Delhi ATM system (West Bound) Note :- Due to restructuring of Karachi ACC and Lahore ACC no need to AIDC testing /requirement between Karachi ACC and Delhi ACC. .*AIDC is not fully functional with neighbouring FIRs due to difference in AIDC version. AIDC will be fully functional up to June, 2025 after replacement of ATM System at Karachi & Lahore ACCs.
		Islamabad ACC	Si ATM	Kabul ACC /Afghanistan	Intraregional	AFTN	7	Main	1 Mbps via Karachi AMHS			No Plan	ICD Version 3.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC	Voice	Automatic	Yes	
				Urumqui ACC /China	Intraregional	AFTN	7	Main	Via Beijing AFTN			No Plan	ICD Version 3.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC	Voice	Automatic	Yes	
				Tajakistan ACC /Tajakistan	Interregional	AFTN	7	Main	Via Tehran AFTN			No Plan	ICD Version 3.0	ABI, EST, ACP, TOC, AOC, LAM, LRM, PAC, CDN, CPL, REJ, MAC	Voice	Automatic	Yes	
PALAU	non-implemented																	
PAPUA NEW GUINEA	Implemented	Port Moresby	Thales (TopSky-ATC)	Brisbane ACC/Australia	Intraregional	AMHS						Operational	ICD V.3.0					
				Ujung Pandang ACC/Indonesia	Intraregional	AFTN						Planned	ICD V.3.0					
				Oakland ARTCC /USA	Intraregional	AFTN						Testing	ICD V.3.0					
PHILIPPINES	Implemented	Manila ACC	THALES	Hong Kong ACC / Hong Kong, China	Intraregional	AFTN												
					Intraregional	AMHS					May 2019	Operational						
				Singapore ACC /Singapore	Intraregional	AMHS					Dec 2020	Operational						
				Taibei ACC/China	Intraregional	AFTN												
					Intraregional	AMHS					Dec 2019	Operational						
				Kota Kinabalu ACC /Malaysia	Intraregional	AMHS						Testing						
				Ho Chi Minh ACC /Viet Nam	Intraregional	AMHS						Testing						
				Oakland ARTCC /USA	Intraregional	AMHS						Planned						
				Fukoka ATMC /Japan	Intraregional	AMHS					1Q2019							
				Ujung Pandang ACC /Indonesia	Intraregional	AMHS					Dec 2020	Operational						
REPUBLIC OF KOREA	Implemented	Incheon ACC	Leidos System	Fukuoka ATMC /Japan	Intraregional	Dedicated L	7	Main	64000	1	2010	Operational	ICD V.1.0	CPL, EST, ACP, TOC, AOC, LAM, LRM	Voice	Automatic	yes	
				Shanghai ACC/China	Intraregional						3Q2023	Planned						
				Dalian ACC /China	Intraregional	Dedicated L	7	Backup	64000	1	Nov 2016	Operational	ICD V.3.0	ABI, EST, ACP, TOC, AOC, LAM, LRM	Voice	Automatic	yes	
		Daegu ACC	Leidos System	Fukuoka ATMC /Japan	Intraregional	Dedicated L	7	Backup	64000	1	2010	Operational	ICD V.1.0	CPL, EST, ACP, TOC, AOC, LAM, LRM	Voice	Automatic	yes	
				Shanghai ACC/China	Intraregional						3Q2023	Planned						
				Dalian ACC /China	Intraregional	Dedicated L	7	Main	64000	1	Nov 2016	Operational	ICD V.3.0	ABI, EST, ACP, TOC, AOC, LAM, LRM	Voice	Automatic	yes	
SAMOA	non-implemented																	
SINGAPORE	Implemented	Singapore ACC	THALES	Ho Chi Minh ACC /Vietnam	Intraregional	AMHS	7	Main	64k	80ms	Jul 2014	Operational	ICD V.1.0	EST,ACP,LAM,LRM	Voice	Automatic	yes	
				Manila ACC /Philippines	Intraregional	AMHS	7	Main	64k	45ms	Nov 2019	Operational	ICD V.3.0	EST,ACP,LAM,LRM,TOC,AOC	Voice	Automatic	yes	
				Jakarta ACC /Indonesia	Intraregional	AMHS	0	Main	64k	60ms		Planned	ICD V.3.0					
				Kuala Lumpur ACC /Malaysia	Intraregional	AMHS	7	Main	64k	20ms	Nov 2019	Operational	ICD V.3.0	EST,ACP,LAM,LRM	Voice	Automatic	yes	
				Kota Kinabalu ACC /Malaysia	Intraregional	AMHS	7	Main	64k	55ms	Jul 2021	Operational	ICD V.3.0	EST,ACP,LAM,LRM,TOC,AOC	Voice	Automatic	yes	
				Kuching ACC /Malaysia	Intraregional	AMHS	7	Main	64k	50ms	Feb 2021	Operational	ICD V.3.0	EST,ACP,LAM,LRM,TOC,AOC	Voice	Automatic	yes	
SOLOMON ISLANDS	non-implemented			Nadi ACC /Fiji	Intraregional													
				Port Moresby ACC/PNG	Intraregional													
				Brisbane ATSC /Australia	Intraregional													
SRI LANKA	Testing	Colombo ACC	INTELCAN	Male ACC /Maldives	Intraregional	AFTN			64000		SEP 2023	Testing	ICD V.3.0		Voice	Manual	no	ABI message is not working during trials.
				Jakarta ACC / Indonesia	Intraregional	AMHS			2048000		SEP 2023	Planned	ICD V.3.0		Voice	Manual	no	

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
SRI LANKA	Testing	Colombo ACC	INTELCAN	Melbourne ACC /Australia	Intraregional	AMHS			2048000		SEP 2023	Planned	ICD V.3.0		Voice	Manual	no	
				Chennai ACC /India	Intraregional	AMHS			2048000		SEP 2023	Testing	ICD V.3.0		Voice	Manual	no	ABI message is not working during trials.
THAILAND	Implemented	Bangkok ACC	THALES	Kuala Lumpur ACC /Malaysia	Intraregional	AMHS					Mar 2020	Operational	ICD V.3.0	EST, ACP, LAM, LRM	Voice	Automatic	yes	
				Phnom Penh ACC /Cambodia	Intraregional	AMHS					Feb 2021	Operational	ICD V.3.0	ABI, EST, ACP, LAM, LRM	Voice	Automatic	yes	
				Vientiane ACC /Lao PDR	Intraregional	AMHS					Jul 2020	Operational	ICD V.3.0	ABI, EST, ACP, TOC, AOC, LAM, LRM	Voice	Automatic	yes	
				Yangon ACC /Myanmar	Intraregional	AMHS						Testing						Continuous operational use still not possible due to system limitation at Yangon ACC
TIMOR LESTE	non-implemented																	
TONGA	non-implemented																	
TUVALU	non-implemented																	
VANUATU	non-implemented																	
UNITED STATES	Implemented	Oakland ARTCC	Liedos, ATOP System	Anchorage ARTCC /United States	Intraregional	AMHS	7	Main	64,000	3	Oct 2005	Operational	ICD V.2.0	ABI, CPL, EST, MAC, CDN, ACP, REJ, EMG, MIS, LAM, LRM, PAC	CDN	Automatic	yes	
				Auckland OAC /New Zealand	Intraregional	AMHS	7	Main	64,000	4	Oct 2005	Operational	ICD V.2.0	ABI, CPL, MAC, CDN, ACP, REJ, LAM, LRM, PAC	CDN	Automatic	yes	
				Fukuoka ATMC /Japan	Intraregional	AMHS	7	Main	64,000	4	Oct 2005	Operational	ICD V.2.0	ABI, ACP, CDN, CPL, LAM, LRM, MAC	CDN	Automatic	yes	
				Nadi ATMC /Fiji	Intraregional	AMHS	7	Main	64,000	5	Oct 2005	Operational	ICD V.2.0	ABI, CPL, CDN, PAC, ACP, MAC, REJ, LAM, LRM	CDN	Automatic	yes	
				Brisbane ACC /Australia	Intraregional	AMHS	7	Main	64,000	1	Oct 2005	Operational	ICD V.2.0	ABI, EST, ACP, MAC, CDN, LAM, LRM	CDN	Automatic	yes	Full CDN functionality proposed 1-30-2023 via LOA.
				Tahiti ACC /French Polynesia	Intraregional	AMHS	7	Main	64,000	10	Dec 2014	Operational	ICD V 2.0	ABI, CPL, CDN, PAC, ACP, MAC, LAM, LRM	CDN	Automatic	yes	
				Port Moresby/PNG	Intraregional	AMHS	7	Main	64,000	6	Dec 2021	Operational	ICD V 2.0	ABI, EST, ACP, LAM, LRM	Voice	Automatic	yes	
				Manila /Philippines	Intraregional	AMHS	7	Main	64,000	5	Dec 2022	Planned	ICD V.2.0	ABI, EST, ACP, LAM, LRM	Voice	Automatic	yes	AIDC testing implemented via MOU with verbal verification for 30 days. Pending test results AIDC incorporation permanently via LOA.
				Mazatlan ACC	Interregional	AMHS	7	Main	64,000	4	Mar 2015	Operational	ICD V.2.0	ABI, ACP, EST, LAM, LRM	Voice	Automatic	yes	
				Ujung Padang/Indonesia	Intraregional	AMHS		Main	64,000		Mar 2023	Planned	ICD V 2.0	TBD-ABI, EST, ACP, LAM, LRM	Voice	Automatic	yes	Pending meeting to determine implementation dates in Jan 2023. Initial testing completed, propose additional live testing phase followed by revised LOA.
		Anchorage ARTCC	Liedos, ATOP System	Magadan ACC	Interregional	AMHS	7	Main	64,000	7	Jun 2018	Operational	ICD V.2.0	ABI, CPL, ACP, LAM, LRM	Voice	Automatic	yes	
				Fukuoka ATMC /Japan	Intraregional	AMHS	7	Main	64,000	4	Mar 2007	Operational	ICD V.2.0	ABI, ACP, CDN, CPL, LAM, LRM, MAC	CDN	Automatic	yes	
				Oakland ARTCC /United States	Intraregional	AMHS	7	Main	64,000	1	Mar 2007	Operational	ICD V.2.0	ABI, CPL, EST, MAC, CDN, ACP, REJ, EMG, MIS, LAM, LRM, PAC	CDN	Automatic	yes	
VIET NAM	Implemented	Ho Chi Minh ACC	THALES	Sanya ACC /China	Intraregional	AFTN												
					Intraregional	AMHS												
				Phnom Penh ACC /Cambodia	Intraregional	AMHS						Testing						
				Vientiane ACC /Lao PDR	Intraregional	AMHS												
				Singapore ACC /Singapore	Intraregional	AMHS					Jul 2014	Operational	ICD V.1.0					
				Manila /Philippines	Intraregional	AFTN						Testing						
				Kuala Lumpur /Malaysia	Intraregional	AFTN												
		Hanoi ACC	Selex	Vientiane ACC/Lao PDR	Intraregional	AMHS						Testing						

LIST OF FOCAL POINT FOR AIDC IMPLEMENTATION

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9.	**Macau China**		

No.	States	Name/Title/Address	Tel/Fax/E-mail
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11	**Democratic People's Republic of Korea**		
12	**Fiji**		
13	**France:** **-New Caledonia** **-French Polynesia**		
14	**India**	Mr. Ritesh Kumar Gupta, Joint General Manager (CNS) Airports Authority of India CHQ Rajiv Gandhi Bhawan, New Delhi	Tel: Fax: E-mail: g.ritesh@aai.aero
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33	**Samoa**		
34	**Singapore**	Mr. Joe Chua Wee Jui Chief (Systems Planning) Air Traffic Services Division Civil Aviation Authority of Singapore P.O. Box 1	Tel: +65 8518 6300 Fax: E-mail: joe_chua@caas.gov.sg
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36	**Sri Lanka**		
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38	**Timor Leste**		
39	**Tonga**		
40	**Tuvalu**		
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42	**Vanuatu**		

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