



ICAO

International Civil Aviation Organization

**Fourth Meeting of the Asia/Pacific Air Traffic
Management Automation System Task Force (APAC
ATMAS TF/4)**

Bangkok, Thailand, 28 - 30 June 2023

Agenda Item 9: Review AIDC Implementation Status in APAC

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 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.

1.2 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.

1.3 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.

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 ATSU's 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 14 updates have been received from States/Administrations, namely Australia, China, Hong Kong China, Japan, Lao PDR, Malaysia, Maldives, New Zealand, Pakistan, Republic of Korea, Singapore, Sri 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 20 States/Administrations have already implemented AIDC, 4 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.

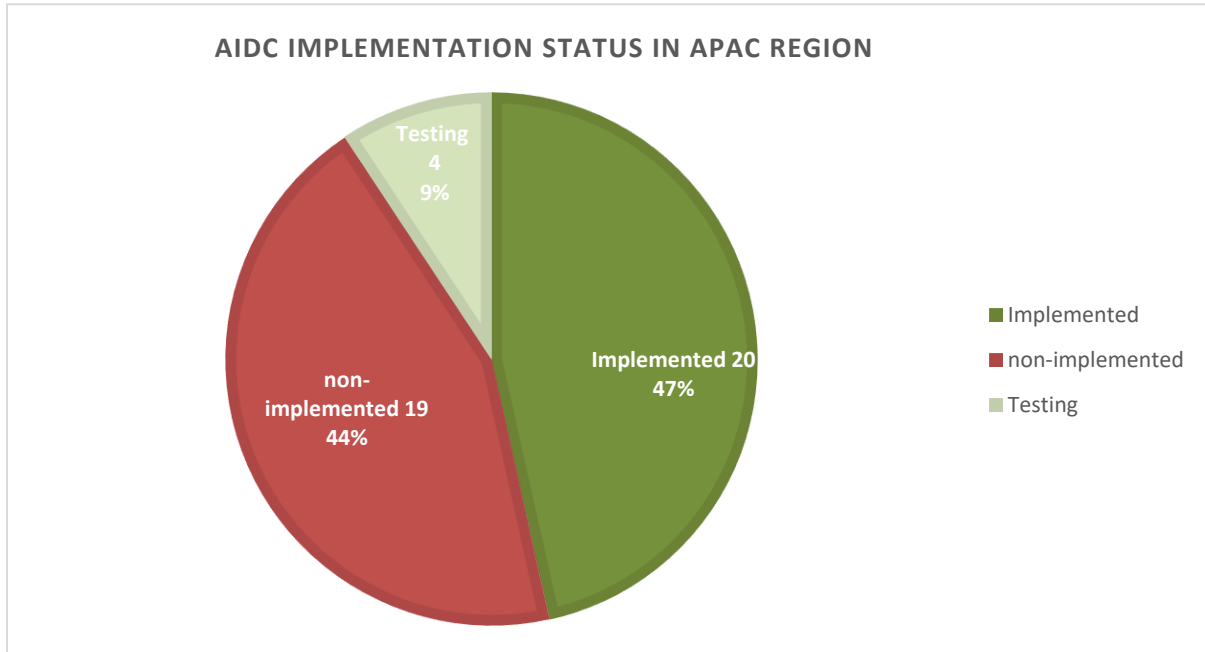


Figure 1 – Overall AIDC Implementation Status in APAC

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 AIDC transmission means in APAC is presented in Figure 2.

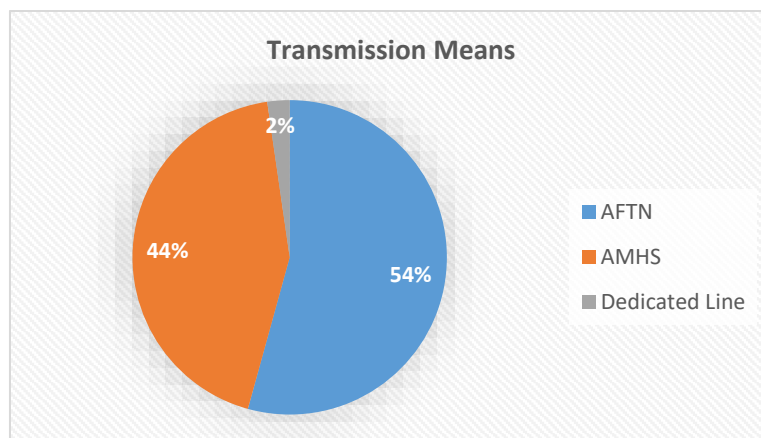


Figure 2 – AIDC Transmission Means in APAC

Based on the data collected currently, 54% of AIDC links in APAC region are carried by AFTN, 44% 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 91 AIDC links, only 38 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. *Methods of Coordination (Recoordination/Coordination Negotiation)*

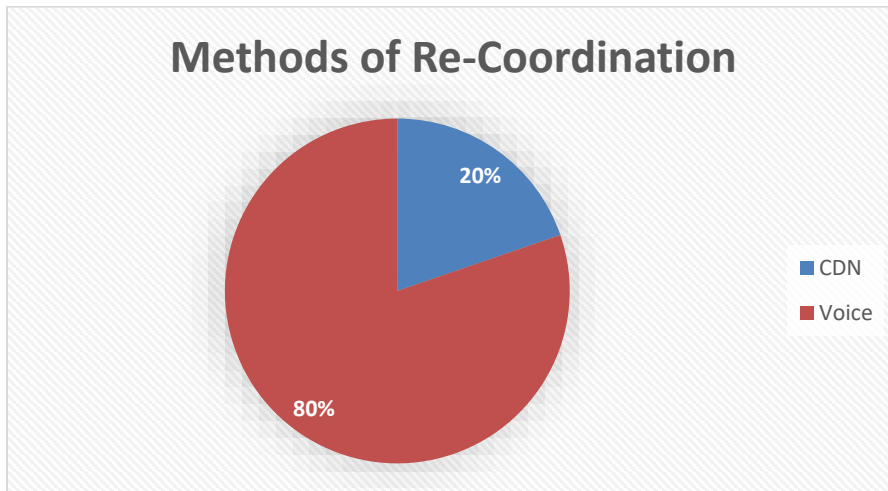


Figure 3 – Methods of Re-Coordination

It is noted that 80% of AIDC Coordination Negotiations in APAC region are relied on voice, while 20% have coordinated through CDN messages.

2.9.7. *AIDC Implementation Plan*

Based on the Column of “Implementation Date or Target Date”, 19 AIDC links are expected to be implemented in 2023, while for a short-term plan, there will be 10 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.

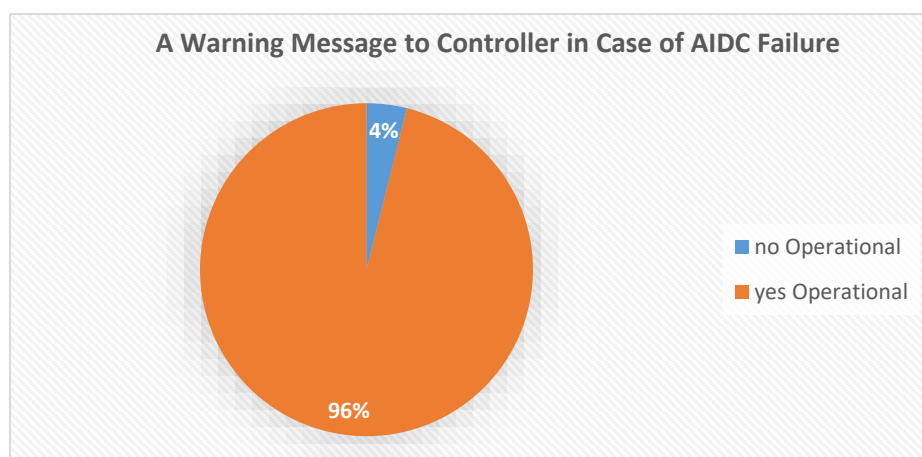


Figure 4 – A Warning Message to Controller in Case of AIDC Failure

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.

2.11 The Tenth Meeting of the Aeronautical Communication Services (ACS) Implementation Coordination Group (ACSICG/10) held at ICAO APAC Regional Office, Bangkok, Thailand, from 24 to 26 May 2023 reviewed the AIDC repository and the preliminary Analysis. Since all the AIDC messages are in AFTN format (with AFTN IA-5 message header), the co-chair suggested to consider whether it is necessary to include Column 7 – Transmission Means in the repository. It was also suggested to add additional explanation of Re-coordination or Coordination Negotiation to the Column “Methods of Coordination” to avoid ambiguity.

Focal Point for AIDC Implementation

2.12 ACSICG/10 meeting also reviewed and updated the focal point for AIDC implementation designated by States/Administrations. The list 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, especially the information contained under Paragraph 2.9.5 - List of AIDC Messages Applicable between the Two ATSU's , 2.9.6 -

Methods of Coordination, and 2.9.8 - A Warning Message to Controller in Case of AIDC Failure;

- d) review and discuss the proposals from ACSICG/10;
- e) review and update the list of focal points for AIDC Implementation in the APAC Region provided in **Appendix C**; and
- f) discuss any relevant matter as appropriate



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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 ylyuo@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 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
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

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/Backup Circuit	Communication Signal Speed (bps)	Average Transmission 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																	
AUSTRALIA		Brisbane ACC		Karachi ACC/Pakistan	Intraregional	AFTN																	
				Oakland ARTCC /USA	Intraregional	AFTN AMHS								Operational									
				Auckland ACC /New Zealand	Intraregional	AFTN AMHS									Operational	ICD V.1.0							
				Melbourne ACC /Australia	Intraregional	AFTN									Operational								
				Ujung Pandang ACC /Indonesia	Intraregional	AFTN									Operational								
				Nadi ACC /Fiji	Intraregional	AFTN AMHS									Operational								
		Port Moresby/PNG	Intraregional	AMHS								4Q2018											
		Melbourne ACC				Brisbane ACC /Australia	Intraregional	AFTN AMHS															
						Jakarta ACC /Indonesia	Intraregional	AFTN AMHS							4Q2019								
						Mauritius ACC /Mauritius	Interregional	AFTN AMHS									Operational						
BANGLADESH		Dhaka ACC		Kolkata ACC /India	Intraregional	AMHS													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 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																	
				Hong Kong ACC / Hong Kong, China	Intraregional	AFTN							Dec 2007	Operational									
		Sanya ACC				Hanoi ACC/Vietnam	Intraregional						Dec 2023	Testing									
						Ho Chi Minh ACC /Vietnam	Intraregional	AFTN							Dec 2023	Planned							
						Vientiane ACC/Laos PDR	Intraregional								Jan 2021	Operational							
		Kunming ACC				Yangon ACC /Myanmar	Intraregional	AFTN															
						Ulaanbaatar ACC/Mongolia	Intraregional										Planned						
		Lanzhou ACC																					
		Lhasa ACC																					
		Guangzhou ACC				Taipei ACC /China	Intraregional						Jan 2013	Operational									
						Hong Kong ACC / Hong Kong, China	Intraregional	AFTN							May 2018	Operational							
						Hong Kong ACC / Hong Kong, China	Intraregional	AFTN									Operational	ICD V.3.0					
						Fukuoka ATMC/Japan	Intraregional	AFTN									Operational						
		Taipei ACC				Manila ACC/Philippines	Intraregional	AFTN															
						Khabarovsk/Russia	Interregional								Oct 2019	Operational	OLDI						
		Shenyang ACC																					
		Urumqi ACC																					
Nanning ACC																							
Dalian ACC				Hanoi ACC/Vietnam	Intraregional						Dec 2023	Planned											
				Incheon ACC /Republic of Korea	Intraregional	AFTN							Oct 2016	Operational	ICD V.3.0 (trial operation)								
				Taipei ACC /China	Intraregional								Jan 2013	Operational									
Shanghai ACC				Incheon ACC /Republic of Korea	Intraregional						Jun 2023	Planned											
				Guangzhou ACC /China	Intraregional	AFTN							May 2018	Operational	ICD V.3.0								
HONG KONG, CHINA		Hong Kong ACC	Raytheon ATM system	Sanya ACC /China	Intraregional	AFTN					Feb 2007	Operational	ICD V.3.0										
				Manila ACC /Philippines	Intraregional	AFTN							May 2019	Operational	ICD V.3.0								
				Taipei 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/In terregional	Transmissi on Means	Frequency of Use(days in a week)	Main/Back up Circuit	Communication Signal Speed (bps)	Average Transmis sion 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 ATSU's (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									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						
		Mumbai ACC	Raytheon Auto track- III	Kathmandu ACC /Nepal	Intraregional	AFTN						1Q2019	Planned							
				Male ACC /Maldives	Intraregional	AFTN							Nov 2021	Operational						
				Mogadishu ACC/Somalia	Interregional									Testing						
	Muscat ACC /Oman			Interregional	AFTN								Testing							
	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	AFTN							3Q2022	Testing							
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						
				Taipei ACC / China	Intraregional	AFTN							2012	Operational	ICD V.3.0					
				Tokyo ACC			Incheon ACC /Republic of Korea	Intraregional					2010	Operational						
		Naha ACC			Taipei 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 /Vietnam	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						
MALAYSIA		Kuala Lumpur ACC		Ho Chi Minh/ Vietnam	Intraregional	AMHS														
				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					
		Kota Kinabalu ACC		Ho Chi Minh ACC /Vietnam	Intraregional	AFTN							Planned							
				Jakarta ACC /Indonesia	Intraregional	AFTN								ICD V.3.0						
				Ujung Pandang ACC /Indonesia	Intraregional	AFTN								Testing						
				Manila ACC /Philippines	Intraregional	AMHS							4Q2019	Testing		EST, ACP, LAM, LRM, 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/Backup Circuit	Communication Signal Speed (bps)	Average Transmission 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 ATSU's (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					
				Vientiane 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 AMHS							Operational	ICD V.1.0	ABI, EST, ACP, TOC, AOC						
				Nadi ACC /Fiji	Intraregional	AFTN AMHS									Operational	ICD V.1.0	ABI, EST, ACP, TOC, AOC				
				Oakland ARTCC /USA	Intraregional	AFTN AMHS									Operational	ICD V.2.0					
				Papeete ACC /French Polynesia	Intraregional	AFTN AMHS									Operational	ICD V.2.0					
				Chile	Intraregional	AFTN AMHS									Operational	ICD V.2.0					
																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						
		Lahore ACC	Indra AIRCON 2100 version-2	Ahmadabad ACC /India	Intraregional	AFTN							4Q2018	Planned							
				Kabul ACC /Afghanistan	Intraregional	AFTN															
				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															
				Singapore ACC /Singapore	Intraregional	AMHS							May 2019	Operational							
				Taipei ACC/China	Intraregional	AFTN															
				Kota Kinabalu ACC /Malaysia	Intraregional	AMHS								Dec 2020	Operational						
				Ho Chi Minh ACC /Viet Nam	Intraregional	AMHS								Dec 2019	Operational						
				Oakland ARTCC /USA	Intraregional	AMHS									Testing						
				Fukoka ATMC /Japan	Intraregional	AMHS									Planned						
				Ujung Pandang ACC /Indonesia	Intraregional	AMHS								1Q2019							
REPUBLIC OF KOREA		Incheon ACC	Rockheed Martin System	Fukoka ATMC /Japan	Intraregional	AFTN								2010	Operational	ICD V.1.0					
				Shanghai ACC/China	Intraregional																
				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/In terregional	Transmissi on Means	Frequency of Use(days in a week)	Main/Back up Circuit	Communication Signal Speed (bps)	Average Transimis sion 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			
				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															
				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

State/Administration	AIDC Implementation Status(Implemented or not)	Location of AIDC System ATSUI	ATM Automation System (Make/Model)	ATSU2 /Correspondent State – Administration	Intraregional/Interregional	Transmission Means	Frequency of Use(days in a week)	Main/Backup Circuit	Communication Signal Speed (bps)	Average Transmission Delay (One Trip Time in 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	
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												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	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	Testing	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	Implemented	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					
		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													
Guangzhou ACC		Taipei ACC /China	Intraregional								Jan 2013	Operational	ICD V.3.0	EST, ACP, TOC, AOC, LRM, LAM		Automatic	yes		

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		
		Guangzhou ACC	THALES	Hong Kong ACC / Hong Kong, China	Intraregional	AFTN					May 2018	Operational	ICD V.3.0	EST, ACP, TOC, AOC, LRM, LAM		Automatic	yes			
		Taipei 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	Taipei 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			
				Taipei 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																			
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						
		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														
				Karachi ACC /Pakistan	Intraregional	AMHS								1Q2019	Planned					
		Mumbai ACC	Raytheon Auto track-III	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									

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1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19			
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							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					64K			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						
				Taipei 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 /Vietnam	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		Ujung Pandang ACC /Indonesia	Intraregional	AMHS	7	Main	TBA	TBA		2Q2023	Planned	ICD V.3.0	EST, ACP, LAM, LRM, TOC, AOC	Voice	Automatic	yes			
				Manila ACC /Philippines	Intraregional	AMHS	7	Main	TBA	TBA		3Q2023	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			
				Jakarta ACC /Indonesia	Intraregional	AMHS	7	Main	TBA	TBA		Sept 2022	Testing	ICD V.3.0	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	2000		Sept 2022	Testing	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							
				Vientiane 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								
				Nadi ACC /Fiji	Intraregional	AFTN									Operational	ICD V.1.0	ABI, EST, ACP, TOC, AOC					
				Oakland ARTCC /USA	Intraregional	AFTN									Operational	ICD V.2.0						
				Papeete ACC /French Polynesia	Intraregional	AFTN									Operational	ICD V.2.0						
				Chile	Intraregional	AFTN						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				
				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	*Trial run between Karachi and Mumbai was remained unsuccessful due to integration problems.			
				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	* 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).			
				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	Lahore ATM does not generate ACP message in response 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.		
				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			
		Islamabad ACC	Si ATM	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														
				Singapore ACC /Singapore	Intraregional	AMHS						May 2019	Operational							
				Taibei ACC/China	Intraregional	AFTN														
				Kota Kinabalu ACC /Malaysia	Intraregional	AMHS								Dec 2019	Operational					
				Ho Chi Minh ACC /Viet Nam	Intraregional	AMHS									Testing					
				Oakland ARTCC /USA	Intraregional	AMHS									Testing					
				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	

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/Backup Circuit	Communication Signal Speed (bps)	Average Transimission Delay (One Trip Time in 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			
SRI LANKA	Testing	Colombo ACC	INTELECAN	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	7	Main	64,000							ICD V.2.0					Pending meeting to determine implementation dates in Jan 2023. Initial testing completed, propose additional live testing phase followed by revised LOA.
				Magadan ACC	Interregional	AMHS	7	Main	64,000	7	Jun 2018	Operational	ICD V.2.0	ABI, CPL, ACP, LAM, LRM	Voice	Automatic	yes				
		Anchorage ARTCC	Liedos, ATOP System	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															
				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

No.	States	Name/Title/Address	Tel/Fax/E-mail
1.	Afghanistan		
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3.	Bangladesh	Mr. Abdullah Al Faruk Assistant Director (ATM) Alternate Focal Point	Mobile: +880 1826 107 002 E-mail: mdfaruk3232@gmail.com
4.	Bhutan	Mr. Pema Tashi Superintendent of ANS Bhutan Civil Aviation Authority Paro International Airport Paro	Tel: +975 (8) 271 347 Ext. 107 Mobile: +975 1 762 2702 Fax: +975 (8) 271 944
5.	Brunei Darussalam		
6.	Cambodia	Ms. Heng Sovannrath Dy. Chief Bureau (CNS) Air Navigation Standard and Safety Department 44, Phnom Penh International Airport, Russian Federation Blvd., Phum Ta Ngoun, Sangkat Kakab, Khan Porsenchey, Phnom Penh	Tel: +855 (78) 961616 Mobile: +855 (23) 890102; 890108 E-mail: sovannrathheng@gmail.com
7.	China	Ms. Cao Susu Senior Electronics Engineer, CNS Division of Air Traffic Management Bureau, CAAC No.12 East Sanhuan Road Chaoyang District Beijing	Tel: +(86) 10877 86969 Mobile: +(86) 15801 682063 Email: caosusu_atmb@qq.com
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8.	Hong Kong, China	Mr. Michael Chu Senior Electronics Engineer (Technical Support) Civil Aviation Department of Hong Kong, China	Tel: +852 2910 6528 Fax: +852 2845 7160 E-mail: mmhchu@cad.gov.hk
9.	Macau China		

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No.	States	Name/Title/Address	Tel/Fax/E-mail
10	Cook Islands		
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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20	Maldives	<p>Mr. Ishag Abdulla Associate General Manager Maldives Airports Co., Ltd Velana International Airport Hulhule 22000</p>	<p>Tel: +960 795 7235 Fax: E-mail: ishag@macl.aero</p>

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26	Nepal	Mr. Hansha Raj Pandey Director, CNS Planning & Development Department Head Office, Babarmahal Kathmandu	Tel: +977 (1) 424 9379 Fax: +977 (1) 426 2516 E-mail: hrp@caanepal.org.np cnsatm@mos.com.np
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29	Palau		
30	Papua New Guinea		

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32	Republic of Korea		
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
35	Solomon Islands		
36	Sri Lanka		
37	Thailand	Mr. Sarawoot Rungruengwajiake Air Navigation Services Standards Officer Civil Aviation Authority of Thailand	Tel: +66 (2) 568 8800 Ext. 2510 Fax: +66 (2) 568 8847 Email: sarawoot.r@caat.or.th
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38	Timor Leste		
39	Tonga		
40	Tuvalu		
41	USA	Mr. Braks Etta Senior FAA/ATO Representative Asia Pacific 27 Napier Road Singapore 258508	Tel: +65 6476 9170 Fax: E-mail: braks.etta@faa.gov
42	Vanuatu		

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No.	States	Name/Title/Address	Tel/Fax/E-mail
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