International Civil Aviation Organization

The Second Meeting of the Asia/Pacific Air Traffic Management Automation System Task Force (APAC ATMAS TF/2)

Video Tele-Conference, 14 - 16 September 2021

Agenda Item 6: Review Report of Seventh Meeting of the Asia/Pacific ATS Inter-Facility Data – Link Communication Implementation Task Force (APA TF/7)

REVIEW REPORT OF APA TF/7 MEETING

(Presented by the Secretariat)

SUMMARY

This paper presents the report of the Seventh Meeting of the Asia/Pacific ATS Inter-Facility Data-Link Communication Implementation Task Force (APA TF/7) for review and action by this meeting.

1. INTRODUCTION

1.1 The Seventh Meeting of the Asia/Pacific ATS Inter-Facility Data-Link Communication Implementation Task Force (APA TF/7) was held via video tele-conference from 07 to 09 June 2021. The meeting was attended by 113 participants from 17 States and 2 International Organization namely IATA and IFATCA. APA TF/7 meeting report, working papers, information papers, and other resources can be accessed by following link:

https://www.icao.int/APAC/Meetings/Pages/2021-APA-TF7.aspx

1.2 The Eighth Meeting of the Aeronautical Communications Services (ACS) Implementation Coordination Group (ACSICG/8) was held from 21 to 23 June 2021 via video teleconference. The Meeting was attended by 120 participants from 20 States/Administrations, 3 International Organizations and 2 Aviation Industries. ACSICG/8 meeting report, working papers, information papers, and other resources can be accessed by following link:

https://www.icao.int/APAC/Meetings/Pages/2021-ACSICG8.aspx

1.3 This paper summarized the main points of APA TF/7 meeting report which had also been reviewed by ACSICG/8.

2. DISCUSSION

2.1 The summary of discussion in the meetings is given in following paragraphs.

Update the AHMS/ATN Implementation Status Table and the AIDC Implementation Table-Sec (WP/03)

2.2 The Meeting updated the ATN/AMHS/AIDC implementation table. The ATN/AMHS/AIDC Implementation Table updated by APA TF/7 and ACSICG/8 is provided in **Appendix A** to this paper.

2.3 The Meeting recommended to remove AIDC and ATM System Implementation columns from the table provided in Appendix A and format it into a separate Excel Sheet. The ICAO Secretariat will take necessary action to create the new Excel sheet and will share with Member States focal point for future updates. India and Singapore volunteered to support the ICAO Secretariat for this Action Item.

2.4 Singapore provided an updated Graphical Display on the AIDC implementation and planning status based on the inputs provided to the meeting via the updates by States to AIDC implementation. The updated Graphical Display on the AIDC implementation and planning status is provided in **Appendix B** to this paper.

AIDC Implementation in Singapore (IP/03)

2.5 Singapore shared some of the implementation and operational issues which could be taken into consideration by other States in their implementation of AIDC. Singapore shared implementation issues about disruption of the connection links that would result in unsuccessful AIDC message transmission/exchanges due to message non-reception/timeouts. The first use of the APAC Regional Common aeRonautical Virtual Private Network (CRV) for AIDC was introduced and it was informed that this is a step forward to address any existing latency issues associated with AFTN routing setups noted in some other connections.

AIDC Operational Trial in Manila FIR- Philippines (IP/07)

2.6 Philippines presented updates on the AIDC trial implementation in Manila FIR. Philippines informed that it has done successful AIDC implementation with Singapore, Hong Kong, Taipei and Ujung Pandang ACCs. Philippines shared the table with the results of AIDC tests and trial operations with six (6) adjacent centres.

AIDC Implementation in Malaysia (IP/08)

2.7 Malaysia shared the status of AIDC implementation plan in Malaysia at Kuala Lumpur FIR and Kota Kinabalu FIR. The ICAO Secretariat informed that ICAO APAC Regional Air Navigation Plan suggest to implement the five AIDC messages as per **APANPIRG Conclusion 24/17**, and the five identified AIDC Messages should be implemented as far as practicable.

AIDC Implementation in Thailand (IP/09)

2.8 Thailand informed that in 2020, Thailand has successfully implemented AIDC communications with three out of four adjacent ATSUs excluding Yangon FIR (Myanmar). AIDC operational trial between Thailand and Myanmar needed to be suspended due to situations in Myanmar. For unsuccessful flights, as current AIDC communications do not implement ABI and CDN message exchanges, the issue could be estimated time at boundary differs from flight plan trajectory more than 45 minutes or Coordination point in EST is not relevant to flight plan route.

AIDC Implementation in India (IP/10)

2.9 India informed that AIDC trials have been carried out between various domestic ATS units are already exchanging live AIDC messages. India shared the status of AIDC Implementation for different pairs of the countries. Meeting was informed that India is keen to conduct operational trials between *Kolkata-Dhaka, Mumbai- Karachi (Pakistan), Chennai-Jakarta* and *Varanasi-Kathmandu*

subject to readiness from the concerned states and India is engaged towards entering into contract with M/S PCCW for CRV in Q3 2021 and Service readiness by Q4 2021 in line with CRV contract and service readiness by counterpart BBIS states. This would provide with a robust and reliable medium for AIDC data interchange between the adjoining FIRs of neighbouring countries.

AIDC Implementation in Indonesia (IP/11)

2.10 Indonesia shared information related to the AIDC implementation status in Indonesia, particularly in Ujung Pandang FIR (Ujung Pandang ACC) with its adjacent Area Control Centres (ACCs) and other relevant matters during the implementation phase. Meeting was informed that currently, Ujung Pandang ACC and Jakarta ACC are being fulfilled the requirements to go to the operational trials. Target of implementation is in 4Q2021. Indonesia shared detailed information about each AIDC Implementation and testing.

AIDC Implementation in China (IP/12)

2.11 China presented the AIDC implementation progress and plan in China with adjacent ATSUs, the issues and experience encountered during the implementation. China informed that in the technical tests, several issues occurred due to the ATM automation system's software defects that interrupted the AIDC handover process. Additionally, the transmission of AIDC messages between adjacent ATSUs under the AFTN network has significant latency, resulting in unsuccessful AIDC message transmission due to message timeouts. It was proposed that by setting up a dedicated line between the AFTN Data & Message Handling System (DMHS) of the ATSUs, the average delay of this link is reducing to less than 5 seconds, and the handover success rate is increasing to more than 95%.

China and Laos Started the AIDC Pre-Operational Trials - China (IP/13)

2.12 China informed that at present, Kunming FIR and Vientiane FIR are connected by an international route A581. Phased progress of AIDC technical test has been made between China and Laos after years of efforts. The AIDC pre-operational trials started on January 12, 2021 and the success rate reached above 90%. It was informed that daily summary and analysis of the failed AIDC handover via emails have been made by technical staff from both sides.

Hybrid Application of AIDC and OLDI- China (IP/14)

2.13 China discussed the application of AIDC and OLDI between Shenyang ACC, Beijing and Khabarovsk air traffic control area, and illustrate the two protocol parameters settings and handover process in NUMEN3000 system. It was informed that at present, Shenyang ACC communicates with Beijing FIR through AIDC (Air Traffic Services Inter facility Data Communications) protocol that uses in Asian-Pacific region, and with Khabarovsk FIR through OLDI (On-Line Data Interchange) protocol of European standard, which improves efficiency of handover and lowers controllers' workload. It was further described that when the automatic system performs the electronic handover of the flight, it will first trigger judgment method of handover according to the relevant handover parameters of AIDC and OLDI configured in the system and then it performs the handover based on the corresponding handover process according to the triggered handover method (AIDC or OLDI).

Progress of AIDC Implementation in Lao PDR (IP/16)

2.14 Lao PDR informed that it had implemented AIDC system since 2016. It had successfully implemented on AIDC with Bangkok and Phnom Penh ACCs in 2020 and has stipulated AIDC operational trials with the adjacent ACCs. The paper presented the overview status on AIDC operation and AIDC operational trials plan with AIDC coordination partners. Lao PDR further informed that Lao PDR has defined plan to perform AIDC operational trials with other adjacent ACCs by using AIDC

messages and shared the plan with the meeting for information and further discussion. Additionally, by WP/08 under Agenda Item 4 titled *Status update on AIDC system with adjacent units*, Lao PDR shared the Proposal of AIDC Implementation Plan Phase 2 for Lao PDR.

AIDC Implementation Issues Report- Indonesia, India, and Singapore (WP/04)

2.15 The Meeting reviewed and discussed the consolidated implementation issues collected and presented by Indonesia with supports by India and Singapore. The AIDC reported issues till date were presented for review and discussion by the meeting. Totally 105 issues were consolidated. The meeting considered that the issue table would continue to serve as a reference for other States. A summary of the identified issues is shown in the Table below. The Issue report is provided in **Appendix C** to this paper.

Fault Categories	APA TF/7 (2021)		
	Issues Reported	Closed	Open
a. Communication Link	9	3	6
b. ATM System	61	29	32
c. AIDC Message	17	15	2
d. Airspace Design/Procedures	13	4	9
e. Other	5	2	3
Total	**105**	**53**	**52**

Lessons Learnt From AIDC Implementation in India (WP/07)

2.16 India presented various technical and operational issues that may be encountered in the process of AIDC implementation and possible solutions. It was informed that India has taken commendable steps in implementation of AIDC between ATC centers within various FIRs within the country as well as with ATC Centers of other neighboring countries. Mr. Kwek Chin Lin informed that AIDC Planning Team of ICAO HQ CP-OPDLWG is drafting the document for an AIDC Implementation and Guidance Document for all regions, which takes reference from some portions of ICAO APAC AIDC Implementation and Operations Guidance Document Edition 1.0 as well as other references. The document, will be applicable to all ICAO Member States. Therefore, it may not be useful to propose or made further improvements or to add any new content into current ICAO APAC AIDC Implementation and Operations Guidance Document.

Updates from RASMAG/25- Sec (IP/06)

2.17 The Twenty-Fifth Meeting of the Regional Airspace Safety Monitoring Advisory Group (RASMAG/25) was held from *27 to 30 October 2020* by Video Teleconference (VTC). The ICAO secretariat provided a regional safety monitoring assessment summary, which highlighted the Hot Spot Summary in the **Table 3** in the meeting report as below to RASMAG/25:

Table 3: Comparison Summary of LHD Hot Spots

ID	Involved FIRs	Identified	Remarks
A1	Kolkata/Chennai/Dhaka – Yangon	2015	Potential non-hot spot
A2	Chennai – Kuala Lumpur	2015	LHDs increased
B	Incheon	2015	AKARA Corridor
D	Manila – all adjacent FIRs	2015	LHDs reduction
F	Mogadishu – Mumbai	2015	LHDs reducing
G	Sana'a/Muscat – Mumbai	2015	Cat. E LHDs (Sana'a improved)
J	Jakarta – Singapore/Kota Kinabalu	2018	Minor, Cat. E LHDs

M	Colombo - Melbourne	2019	Potential non-hot spot
N	Oakland USA – Hawaii CEP	2019	Cat. E LHDs

Review of the Terms of Reference and Achievements of APA Task Force- Sec (WP/05)

2.18 Meeting was informed that significant achievements have been made since the establishment of this task force, including the preparation of AIDC Planning Table in the Regional Air Navigation Plan, development of AIDC Implementation and Operations Guidance Document, maintenance of AIDC Issues Report, summary of AIDC focal points, the Implementation Status Chart as well as the sharing of the experience gained by States/Administration in the challenging process of AIDC implementation. The meeting was informed that the *ToR will be reviewed based on the scope and work may be undertaken by ATMAS TF within available time and resources.*

Outstanding Tasks/Action Item and Recommendations for APA Task Force- Sec (WP/06)

2.19 Considering that different States in the region are presently at different stages of AIDC implementation, necessity to maintain the functions of APA/TF persists, to facilitate appropriate guidance for upcoming States and provide a coordination framework among States for wider and effective implementation of AIDC across the APAC region. While major success has been recorded for AIDC implementation in the region, full scale action of the APA/TF is not envisaged, henceforth. The meeting discussed that by comparing the Terms of Reference (ToR) of ACSICG and ATMAS/TF, it should be agreeable to identify ATMAS/TF as the contributory body under CNS SG to take over any outstanding action items of APA/TF, and the expertise of APA/TF experts should be retained through appropriate arrangement after the dissolution.

2.20 As the ATM automation system covered a wide spectrum of operational concepts, various technologies, projects implementation, the ATMAS/TF/1 meeting considered it necessary to kick off the group's future works with a well-defined plan and propose ad hoc groups to further progress action items. It was proposed that AIDC specialists may work as nominated members of an ad hoc expert group within ATMAS/TF to follow up the concerns and issues arisen from the AIDC implementation activities in the region.

2.21 The meeting was informed that the ICAO secretariat will forward draft decision, if agreed by the meeting, to ATMAS/TF for endorsement, propose appropriate action on the ToR and tasks/action items of ATMAS/TF, and then submit to CNS SG for adoption. The meeting reviewed and updated the list of tasks/action items and agreed for draft decision APA TF/7/1 to be considered by ATMAS TF/2. With aforementioned, it is suggested to consider the **Draft Decision APA TF/7/1** - *Dissolution of APA/TF* on the future of APA/TF. The meeting also requested that the ATMAS/TF shall design future meeting structure to accommodate the AIDC related functions and maintain the effectiveness in promoting AIDC implementation.

2.22 The ACSICG/8 meeting reviewed the report and noted the **Draft Decision APA TF/7/1**- *Dissolution of APA TF* for consideration of ATMAS TF/2. The ACSICG/8 meeting was informed that the AIDC Implementation Table will be maintained by ATMAS/TF and all communications issues related to AIDC discussed in ATMAS/TF will be reported back to ACSICG for necessary action.

2.23 With aforementioned, the following Draft Decision is formulated for the consideration by this meeting:

Draft Decision ATMAS TF/2/XX (APA TF/7/1) - Dissolution of APA/TF	
What: Noting that most of the tasks outlined in the APA/TF ToR have been achieved and the completion of residual part of action items will be undertaken by ATMAS/TF.	Expected impact: ☐ Political / Global ☐ Inter-regional

That, the APA/TF be dissolved.	☒ Economic ☐ Environmental ☒ Ops/Technical
Why: The APA/TF Terms of Reference have been completed and pending action items will be undertaken by ATMAS/TF.	Follow-up: ☐Required from States
When: 22-October-21	Status: Draft to be adopted by Sub-Group
Who: ☒Sub groups ☒APAC States ☒ICAO APAC RO ☐ICAO HQ ☒APANPIRG ☒Other: ATMAS/TF	

Application of Electronic Handover Technology between High Level and Low Level Sectors- China (IP/15)

2.24 China introduced an operational situation of horizontal and vertical handover co-exist, taking the flight handover between upper and lower sectors in Chengdu and Chongqing of CAAC, and the complex operational environment between Chengdu, Chongqing and Xi'an solution based on using the application of MH/T 4029.3, to realize the vertical and horizontal electronic handover in the complex operational environment.

Update on ICAO APAC Regional Webinars-Sec (IP/02)

2.25 The meeting was informed about the 18 webinars to be hosted by ICAO APAC office in the year 2021 as ICAO APAC series of webinars along with the objectives of webinars related to CNS i.e. ICAO APAC Cybersecurity Webinar, Webinar on Implementation of CRV in APAC region, SWIM workshop, and Webinar on Implementation of ADS-B. The meeting was invited to contribute individual practice and experience to the webinar of interest as a speaker and to take maximum advantages of the webinars by registering more participants from states.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information contained in this paper and take any necessary follow-up actions;

b) discuss and agree with the **Draft Decision** in paragraph 2.23; and

c) discuss any relevant matters as appropriate.

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ATN/AMHS/AIDC Implementation Status in the APAC Region

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
AFGHANISTAN					
AUSTRALIA	ATN tests were conducted. BIS Router and Backbone BIS Router and AMHS implemented. CRV operational since May 2019. AMHS over CRV with: Singapore, New Zealand, Fiji and USA AMHS over leased line with: South Africa Planning to migrate existing AFTN connections over leased line with Indonesia and PNG to AFTN over CRV (2021) prior to upgrading to AMHS over CRV (TBC) Extended AMHS with FTBP in support of IWXXM exchange in operation since Nov. 2020.	Frequentis Comsoft	AFTN/AMHS based AIDC Implemented between Brisbane and Melbourne. For neighbouring ANSP of Brisbane, AIDC implemented with Auckland, Nadi, Oakland, Port Moresby, Ujung Pandang For neighbouring ANSP of Melbourne, AIDC implemented with Johannesburg and Mauritius.		CPL and CDN exchange limited
BANGLADESH	In Q1/2013, Bangladesh installed ATN/AMHS and BIS Router at Dhaka (VGHS) with User Agents at Chittagong (VGEG) and Sylhet (VGSY).	COMSOFT	Tentative date of implementation of AIDC is Q4 of 2023 with Kolkata and Yangon.		Implementation of AIDC is included in the “Modernization of CNS-ATM System of

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
					CAAB" project which is going on G2G agreement with French Government and likely to be implemented by the end of 2023.
BHUTAN	ATN/AMHS circuits, using IP over VPN, with Thailand (Bangkok) and India (Mumbai) commissioned in June and July 2017 respectively. IOT and POT with Mumbai completed on 27th June 2017. IOT and POT with Thailand completed on 2nd May 2017. TMC signing with both countries signed.	AEROTHAI'S AMHS System	Currently not applicable. If required in the future, will decide after CRV implementation.		
BRUNEI DARUSSALAM	ATN BIS Router planned for 2015 and AMHS planned for 2015				
CAMBODIA	BIS Router and AMHS installed. Cambodia (CATS) AMHS connected with Bangkok via VSAT IP link since 10 December 2013	AVITECH	AIDC function and capability made available.	THALES which supports AIDC ICD Version 1.	

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			Ready for testing with neighbors ATS Facilities starting from 2017 and target date of implementation with Bangkok in 4Q2019		
CHINA	ATN Router and AMHS including NCC deployed in 2008 which is being upgraded to support ATN/IPS with target date of completion in December 2013. The Beijing-Hong Kong AMHS link was put into operation in 2018; With Thailand was put into operation in Q12020 AMHS/ATN technical tests with Macau completed in 2009. Plan for ATN/AMHS implementation with Macao China is TBD. ATN/AMHS circuit with ROK has been put into operation since June 2011. ATN/AMHS tests with India has been put into operation since 2016. ATN and AMHS IOT with Mongolia is completed in May 2018. Plan for	IN-HOUSE (Aero-Info Technologies Co., Ltd)	AIDC between some of ACCs within China has been implemented. AIDC between several other ACCs are being implemented. AIDC between Sanya and Hong Kong China put into operational use since 8 Feb 2007. AIDC between Dalian and Incheon implemented in Nov. 2016; AIDC between Sanya and Hong Kong China put into operational use since February 2007.	ATN Router and AMHS including NCC deployed in 2008 which is being upgraded to support ATN/IPS with target date of completion in December 2013. The Beijing-Hong Kong AMHS link was put into operation in 2018; With Thailand is completed POT, after sign the TMC circuit and was put into operation in Q12020 AMHS/ATN technical tests with Macau	IN-HOUSE (Aero-Info Technologies Co., Ltd)

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
	commissioning after POT completion in 2021 Connection tests with Nepal is TBD. AMHS testing with Japan was completed in March 2021.It will put into operation after TMC is signed. AMHS testing with Russia in 2021.		AIDC between Shanghai/Guangzhou and Tapei China put in to operational use since 2013. AIDC between Dalian and Incheon put into operational use since October 2016. AIDC between Guangzhou and Hong Kong China put into operational use since May 2018. OLDI between Shenyang and Khabarovsk put into operational use since Oct.2019. AIDC between Kunming and Vientiane put into pre-operational trails since January 2021. AIDC technical test between Beijing ACC	completed in 2009. Plan for ATN/AMHS implementation with Macao China in 2019. ATN/AMHS circuit with ROK has been put into operation since June 2011. ATN/AMHS tests with India has been put into operation since 2016. ATN and AMHS IOT with Mongolia is completed in May 2018. Plan for commissioning after POT completion in 2021 Connection tests with Nepal is TBD. with the Beijing - Japan AMHS link was put into operation in in 2020.	

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			and Ulaanbaatar ACC conducted since 2018. Kunming/Yangon under test and progress since May 2017 AIDC technical test between Sanya ACC and Hanoi ACC conducted since 2019.	AMHS testing with Russia in 2021	
HONG KONG, CHINA	**Manila / Philippines** CRV/AMHS circuit was put into operation in May 2019. **Beijing / China** CRV/AMHS circuit was put into operation in April 2021 Macao / China ATN/AMHS circuit was put into operation in December 2009. Wait for Macao to join CRV. **Bangkok / Thailand** ATN/AMHS circuit was put into operation use in 2014. Wait for Thailand to join CRV. **Fukuoka / Japan**	COMSOFT	AFTN-based AIDC with Sanya put into operational use in Feb 2007. AIDC with Taibei put into operational use in Nov 2012. AIDC with Guangzhou put into operational use in May 2018. AIDC with Manila put in operational use in May 2019.	Raytheon ATM system Support AIDC ICD Version 3 commissioned in November 2016.	Already support exchange of IWXXM messages based on FTBP. Support of IHE is planned since November 2020.

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
	CRV/AMHS circuit was put into operation in September 2020. **HoChiMinh / Vietnam** Currently on AFTN. Simple AMHS IOT was conducted in Dec 2019. Wait for Vietnam to join CRV. **Taibei** CRV/AMHS circuit was put into operation in June 2020.				
MACAO, CHINA	ATN/AMHS interoperability test with Beijing commenced in March 2009. ATN/AMHS circuit with Hong Kong put into operational use in end Dec 2009. Upgrade of ATN/AMHS to support IPS and IWXXM planned with tentative target date of Q3 2021.	COMSOFT	[Not applicable for using AIDC, looking into the possible application between TWR and ACC/APP]		

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
COOK ISLANDS					
DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	The ATN BIS Router and AMHS planned for in 2011.		With neighboring ACCs to be implemented		
FIJI ISLANDS	ATN BBIS IPS router and AMHS implemented over CRV for connection to USA in April, 2019 with Australia planned for June, 2019. . For connections with sub-regional centers: For New Caledonia using AMHS since 2017; For connection with Kiribati using UA/AMHS implemented in 2015.	COMSOFT	AFTN based AIDC implemented between Nadi/ Brisbane, Auckland and Oakland.	- Support and implemented AIDC messaging: ABI, EST, CPL, CDN, ACP, TOC, AOC with all three centers - AIDC ICD version 2.0 implemented with Auckland and Oakland. - AIDC ICD Version 1.0 implemented with Brisbane	B2B connection between Nadi AMHS and Brisbane AMHS planned for Q3, 2021 as backup for CRV.

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
FRANCE *(French Polynesia Tahiti)*	Planned for implementation of AMHS in 2022 (T1). Using IP with New Zealand since 2017.		Implementation of AIDC (based on Version 3) with adjacent centers (Oakland and Auckland) since 2009.	THALES EUROCAT for AIDC	Alternate routing for backup between Tahiti and Christchurch via Tahiti/New Caledonia IP link
INDIA	Dual stack ATN/IP router and AMHS implemented at Mumbai in 2011. Operational AMHS connections with Bangkok, Dhaka, Singapore, Kathmandu, Karachi implemented. With Beijing implemented in 2016; With Colombo implemented in May2017; With Bhutan implemented in July 2017; (IOT/POT) between Mumbai – Muscat is scheduled with mutual agreement between India & Oman between 0600-0900 UTC from 21.06.2021 onwards. IOT with Nairobi in September 2020 failed due to compatibility issues noticed at Nairobi, which has Thales system, Messages from Mumbai did not go out of the transmit queue. System software level compatibility problems need to be resolved by Nairobi taking the OEMs on board.	COMSOFT	Initially-15-May-2017, AIDC implemented between Chennai and Kuala Lumpur with ABI and EST messages. India is currently using APAC AIDC ICD version 3. **A. Implementation within India:** Testing & trials: I. At Delhi with: Ahmedabad, Varanasi, Nagpur II. At Chennai with: Mumbai, Kolkata, Trivandrum, Mangalore, Trichy, Hyderabad, Bengaluru	Mumbai: Raytheon Auto track-III Chennai- Raytheon Auto track-III + Delhi: INDRA Aircon Kolkata: INDRA Aircon Bengaluru: SELEX Hyderabad: SELEX Ahmedabad: INDRA Aircon 2100 Nagpur: INDRA Aircon 2100 Varanasi: INDRA Aircon 2100 Guwahati: INDRA Aircon 2100 Trivandurm: INDRA Aircon 2100 Mangalore: INDRA Aircon 2100	INDIA

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			III. At Kolkata with: Chennai, Nagpur, Varanasi, Guwahati IV. At Mumbai with: Chennai, Ahmedabad, Nagpur Operational: Chennai- Mumbai; Delhi-Nagpur; Delhi-Ahmedabad, Functional: Delhi-Varanasi, LOA to be signed shortly. **B: Implementation with Neighboring States:** The status on AIDC implementation with following ATSUs of neighboring FIRs is as under: I. **Chennai & Kuala Lumpur** (Malaysia) – ABI, EST successful. CDN is done with voice	Trichy: INDRA Aircon 2100 All these systems follow APAC AIDC ICD Ver 3.0 of 2007	

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			confirmation. TOC/AOC is implemented w.e.f. 1st Jan 2021. LOA signed on 26th May 2021 effective from 1st June 2021. II. **Chennai & Male (Maldives)** –Trails have been successful. LOA in process. Safety Assessment conducted on 9th April 2021 for implementation III. **Chennai & Colombo** (Sri Lanka) - Colombo in process to address the syntax errors in ABI. Thereafter, trails will be conducted. LOA in progress. IV. **Chennai & Yangon** (Myanmar) – Trials commenced in January 2018. Issues of incorrect reference number in Counter CDN from Yangon persists. Yangon has intimated that, they will inform Chennai for conducting the Test, as soon as they		

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			are ready V. **Mumbai & Male (Maldives)** – Safety Assessment conducted on 9th April 2021 for implementation. Final LOA to be signed shortly. **VI. Mumbai & Mogadishu** - Successful trials conducted in March 2021. Minor adaptation system issues with Mogadishu automation system identified. Resolution awaited from Mogadishu. **VII Mumbai & Muscat** - Successful trials conducted in March 2021. System issues with Muscat's automation system identified. Resolution awaited from Muscat ATCAS vendor **VIII**. **Ahmedabad & Karachi (Pakistan) –** Automatic message		

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			exchange (e.g. ABI, EST) happens for most of the East bound flights between Karachi & Ahmedabad. Karachi Automation system not generating auto ACP message in response of EST messages. Pakistan is currently doing technical trials between Lahore and Delhi ACCs in first phase. Pakistan will take up test trials between Karachi and Mumbai & Karachi and Ahmedabad in second and third phase respectively. **IX. Delhi & Lahore (Pakistan)-** Under test trails. During the first test trials during the March'2021 it was identified that Lahore Automation system not generating automatic ACP messages. Also Delhi system is rejecting the AIDC messages		

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			because of the extra space in messages from Lahore. **X. Kolkata & Yangon (Myanmar)** – Initial trials were conducted in Q4 of 2018 in which some ABI and message reference errors were encountered. Vendor at both ends modified the software and issues were mitigated. In the next trials in Q1 of 2020 most message exchanges were successful. LOA to be negotiated and signed. **C. Under Planning** I. To conduct operational trials between Kolkata-Dhaka, Mumbai-Karachi (Pakistan), Chennai-Jakarta and Varanasi-Kathmandu subject to readiness from the concerned states. D. Seychelles and Sana ATSU do not have a		

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			compatible ATM Automation system in place for AIDC coordination with Mumbai ATSU E. Delhi – Karachi: AIDC between Delhi & Karachi will not be required due to re-structuring of FIRs		
INDONESIA	ATN BIS Router and AMHS with Singapore implemented since February 2018; AMHS Trial (IOT) with Brisbane pending for CRV implementation.	IDS	AIDC implementation in Ujung Pandang ACC conducted as follows: 1) Ujung Pandang ACC – Brisbane ACC: Implemented since July 2017. 2) Ujung Pandang ACC – Manila ACC: Implemented since 4Q 2020; 3) Ujung Pandang ACC – Kota Kinabalu ACC: - Successfully tested and target date for operational trial in 4Q2020;	Thales TopSky in Makassar able to support ICD version 3 since December 2015.	For CRV, target of contract in 3Q2021 and implementation in 4Q2021.

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			- Target date for implementation 4Q2021. 4) Ujung Pandang ACC – Oakland ARTCC: - Successfully tested and target date for implementation in 4Q2021. 5) Ujung Pandang ACC – Port Moresby ACC: - Successfully tested on 7 July 2020; - Target date for operational trial in 3Q2020. - Target date for implementation 2Q2021. 6) Ujung Pandang ACC – Jakarta ACC; - Target date for operational trial in 3Q2021. - Target date for implementation 4Q2021; AIDC implementation in Jakarta ACC will be carried out with the following priorities: 1) Jakarta – Ujung Pandang (4Q2021);		

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			2) Jakarta – Chennai (2Q2022); 3) Jakarta – Melbourne (3Q2022); 4) Jakarta – Colombo (4Q2022); 5) Jakarta – Singapore (2Q2023); 6) Jakarta - Kuala Lumpur (3Q2023); 7) Jakarta – Kota Kinabalu (4Q2023).		Priority is in accordance with Hot Spot identified by RASMAG/23
JAPAN	ATN BBIS router and AMHS installed at **USA** in 2000. Connection tests with USA in 2000 - 2004 and put into operational use in 2005. ATN BBIS router (to apply to Dual Stack) and AMHS (to upgrade in 2015. The connection test with each country which is not currently connecting is started after update. Hong-Kong AMHS/FTBP over CRV was put into operation in September 2020.	NEC	AIDC implemented between Fukuoka ATMC and Oakland ARTCC in 1998. AIDC implemented between Fukuoka ATMC and Anchorage ARTCC in 2005. AIDC implemented between Tokyo ACC/Fukuoka ACC and Incheon ACC in 2010.		Japan and USA conducting testing AIDC over AMHS and cutover date is 5 May 2017.

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
	Singapore AMHS/FTBP over CRV was put into operation in December 2020. **Beijing/China** AMHS/FTBP over CRV test was all completed in March 2021. It will put into operation after TMC is signed **Taipei** Plan for AMHS/FTBP over CRV IOT in July 2021 POT in 1Q 2022 Incheon/Korea Plan for AMHS/FTBP over CRV IOT in 4Q 2021		Implemented between Fukuoka and Incheon since June 2009. AIDC implemented between Fukuoka ACC/Naha ACC and Taibei ACC implemented. AIDC between Fukuoka ACC and Shanghai ACC under negotiation.		
KIRIBATI	Connection with Nadi using UA/AMHS implemented in 2015.				
LAO PDR	- ATN BIS Router and AMHS Implemented with Bangkok and Phnom Penh. - AFTN used with Hanoi and Kunming. - For Yangon we have no direct link the connection is used via Bangkok.	THALES	- Vientiane ACC AIDC used for coordination between Bangkok and Phnom Penh ACCs since 2020. - Operation trials are on going with Kunming,	THALES which is able to support ICD Version 2.	

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			Hanoi and Yangon ACCs.		
MALAYSIA	ATN BIS Router completed 2007. AMHS for Malaysia – Singapore implemented in March 2020. AMHS for Malaysia – Thailand implemented in Dec 2019.	FREQUENTIS	**Kuala Lumpur ACC and Bangkok ACC** AIDC technical test between Kuala Lumpur ACC and Bangkok ACC conducted since November 2016 (ABI/EST/ACP/LAM/LRM/CDN/REJ/TOC/AOC). The operational trial commenced in August 2019 (EST/ACP/LAM/LRM). The operational implementation commenced on 14th March 2020 (EST/ACP/LAM/LRM). **Kuala Lumpur ACC and Chennai OCC** AIDC technical test between Kuala Lumpur	SELEX which is able to support ICD Version 3.	

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			ACC and Chennai OCC conducted since 31st July 2013. The operational trial implemented in phases from September 2016 (ABI/EST/MAC/LAM/LRM/ACP). Review on the CDN message implementation conducted in August 2017. SOP signed 26 April, 2017. The MOU signed on March 2020. The operational implementation commenced on 1st April 2020 (ABI/EST/ ACP/LAM/LRM/CDN/REJ/MAC). The operational trial for TOC/AOC started on 1st July until 1st August 2020.		

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			The operational implementation for TOC/AOC commenced on 1st January 2021. The updated LOA signed on 26th May 2021. **Kuala Lumpur ACC and Singapore ACC** AIDC technical test between Kuala Lumpur ACC and Singapore ACC conducted since April 2015 (ABI/EST/ ACP/LAM/LRM/CDN/REJ). The operational trial started on September 2018 (EST/ACP/LAM/ LRM). The operational implementation commenced on 1st November 2019 (EST/ ACP/LAM/LRM).		

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			Kuala Lumpur ACC and Ho Chi Minh ACC AIDC technical test between Kuala Lumpur ACC and Ho Chi Minh ACC To Be Discussed (TBD). **Kuala Lumpur ACC and Jakarta ACC** AIDC technical test between Kuala Lumpur ACC and Jakarta ACC TBD. **Kota Kinabalu ACC and Manila ACC** AIDC Technical Test 1 between Kota Kinabalu ACC and Manila ACC started on 21 – 22nd May 2019 (ABI / EST / ACP / LAM / LRM / TOC / AOC / MAC). Technical Test 2 was conducted on 21 – 22nd October 2019 (ABI / EST / ACP / LAM / LRM / TOC / AOC / MAC).		

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			Upcoming AIDC Technical Test between Kota Kinabalu ACC and Manila ACC to be conducted in Q32021 **Kota Kinabalu ACC and Ujung Pandang ACC** AIDC Technical Test 1 between Kota Kinabalu ACC and Ujung Pandang ACC started on 7 – 8th August 2019 (ABI / EST / ACP / CDN / LAM / LRM / REJ / MAC). Technical Test 2 was conducted on 23 – 24th October 2019 (ABI / EST / ACP / LAM / LRM / TOC / AOC / MAC). Technical Test 3 was conducted on 11th March 2020 (EST / ACP / LAM / LRM). Upcoming AIDC Technical Test between Kota Kinabalu ACC and		

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			Ujung Pandang ACC to be conducted in Q32021 **<u>Kota Kinabalu ACC and Jakarta ACC</u>** AIDC Technical Test between Kota Kinabalu ACC with Jakarta ACC is to be discussed. **<u>Kota Kinabalu ACC and Singapore ACC</u>** AIDC Technical Test between Kota Kinabalu ACC and Singapore ACC started on 22nd September 2015 (ABI / EST / ACP / CDN / LAM / LRM / REJ / MAC). AIDC Technical Test 1 was conducted on 18 – 19th November 2019 (ABI / EST / ACP / CDN / LAM / LRM / REJ / MAC). Technical Test 2 was conducted on 16th		

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			January 2020 (EST / ACP / LAM / LRM). AIDC Operational Trial started since 16th November 2020 and to be extended until 30th June 2021. Agreement on Operational Implementation has been materialized on 3rd June 2021. Operational Implementation is agreed to be conducted on 1st July 2021 (EST / ACP / LAM / LRM) **Kuching ACC and Singapore ACC** AIDC Technical Test (First and Second) between Kuching ACC and Singapore ACC was conducted both on 11 November 2015 and 24-25 November 2015 (ABI, EST, LAM, CDN, ACP, REJ, and LRM). However, it was discontinued until November 2019.		

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			The AIDC Technical Test (Third and Fourth) was conducted both on 20-21 November 2019 and 14 January 2020 (ABI, EST, LAM, CDN, ACP, REJ, and LRM) AIDC Operational Trial was started on 20 July until 18 October 2020. Then it was continuing until 31 January 2021. Agreement on Operational Implementation has been materialized on 12 January 2021 via videoconference. The operational implementation was on 1 February 2021. The AIDC messages included for exchange are EST, LAM, LRM and ACP.		

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			<u>Kuching ACC and Jakarta ACC</u> AIDC between Kuching ACC and Jakarta ACC TBD.		
MALDIVES	In the process of replacing the existing operational AFTN system by AMHS. It is expected to complete the installation before the end of 2019. With the new AMHS, it is planned to establish a new IP connection between an additional neighboring ATSU as the current link is an X.25 connection between Colombo. Also will look for the possibility of implementing the CRV network to use with AMHS and AIDC during the same phase.		Connection established with all the adjacent ATSUs. Interoperability tests successfully completed in 2017. LOA signed for operational trials between Mumbai, Chennai, and Trivandrum. Operational trials were also successful with these ATSUs, while several issues were resolved from both ends. Ready to sign LOA with Melbourne and is expected during the 2nd quarter of 2019. Trials with Colombo had few issues, which	SELEX which is able to support ICD Version 3.	

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			Colombo is working to resolve it on their end with the automation system supplier. Connections between all 5 ATSUs are turned ON in the ATS automation system to conduct pre-notified operational trials.		
MARSHALL ISLANDS					
MICRONESIA (EDERATED STATES OF)					
Chuuk					
Kosrae					
Pohnpei					
Yap					
MONGOLIA	AMHS/AFTN gateway implemented 2012. ATNBIS router implemented in 2014.	COMSOFT	ATM automation system supports both AIDC and OLDI.	INDRA Aircon 2100 supporting AIDC ICD Version 2.	

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
	ATN and AMHS IOT with China was completed in May 2018. Plan for commissioning after POT completion in 2019.		Coordinating with Russia on OLDI connection in target date 2016. Coordinating with China on AIDC connection between Beijing/Ulaanbaatar technical trials in progress. Planned date of testing in 2019.		
MYANMAR	AMHS including AFTN/AMHS gateway implemented in Nov 2011. Connection with Thailand implemented in 4Q2016. Planned for AMHS connection with Beijing. Target date TBC.	THALES	AIDC connection pre-operation test with Thailand conducted in 4Q2017 and Target date of implementation 4Q2020; AIDC testing with Chennai, Kolkata and Vientiane conducted in 2020. Myanmar improved ATS Surveillance Coverage at coordination point with China and will start AIDC test again with Kunming ACC in 2020.	THALES Automation system (Topsky ATC) supports APAC AIDC ICD Ver. 2.	AMHS including AFTN/AMHS gateway implemented in Nov 2011. Connection with Thailand implemented in 4Q2016. Planned for AMHS connection with Beijing. Target date TBC.
NAURU					

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
NEPAL	AFTN/AMHS Gateway implemented in 2012. AMHS implemented with India since June 2014. AFTN connection with China. Plan to test AMHS connection soon.	COMSOFT	Nepal uses custom built ATM system from NEC. Some issues regarding ICD need to be resolved in order to proceed ahead with AIDC testing with India and China.		
NEW CALEDONIA	New router and AMHS commissioned December 2016	COMSOFT			
NEW ZEALAND	AMHS connection with the USA over CRV was implemented in April 2019. AMHS connection to Australia over CRV is scheduled for June 2019.	COMSOFT	AIDC implemented between New Zealand, Australia, Fiji, Tahiti, Chile and USA.	Supported the Basic 5 message set. ATM systems are LEIDOS and ADACEL	
PAKISTAN	ATN/AMHS connections with Mumbai and Kuwait since 2015 and 2018 respectively. AMHS connection with Beijing, Kabul, Tehran and Muscat will be provided after up gradation of existing AMHS at Karachi which is already in progress.	Existing COMSOFT After up gradation ISD	Implemented between Karachi and Lahore ACCs. Lahore/Delhi ACC AIDC trials are being carried out which started in March 2021 (Phase-1), Karachi/Mumbai &	ATM system from Indra AIRCON 2100 version-2 in Lahore and Karachi ACC, Si-ATM version-3 in Islamabad ACC	Existing ATM system are likely to be upgraded in Lahore and Karachi ACC.

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			Karachi/Ahmedabad are planned in Phase-2. After modification of Lahore/Karachi FIRs boundaries, trials between Karachi/Delhi ACC are not required.		
PAPUA NEW GUINEA	Currently AFTN over IP. AMHS implementation is planned for after successful implementation of CRV this year. AMHS implementation planned for 2020.	COMSOFT is the supplier of PNG AFTN/AMHS system	AIDC using AFTN operational with Australia, testing/trial with Oakland (USA) started late last year and in progress. AIDC implementation with Indonesia to happen after CRV implementation this year.	New ATM System from Thales (TopSky-ATC) implemented and operational now supports AIDC V3.	
PHILIPPINES	ATN/AMHS Boundary Intermediate System was installed at the new Manila CNS/ATM Center; • Site Acceptance, Oct. 2015 • Commissioned & operational, March 2018	**Frequentis - Comsoft**	AIDC implementation status/update over AMHS with the following FIR's;	THALES which is able to support ICD Version 2.	The New ATN/AMHS of Manila CNS/ATM center has been in domestic operations since March 2018. And with the

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
	AMHS implementation over CRV with; • **HONG KONG** - May 2019 • **TAIPEI** - Sept. 2019 • **SINGAPORE** - Dec. 2020 • **OAKLAND** - April 2021		**HONG KONG** – Implemented, May 2019 **SINGAPORE** – Implemented, December 2020 **TAIPEI** – Implemented, December 2019 **UJUNG PANDANG** – Implemented, December 2020 via **BBIS** **HO CHI MINH** - Awaiting OPS trial. Technical Test conducted on June 15-16, 2021. **KOTA KINABALU** – Next progress AIDC test to be scheduled, target 3Q2021		implementation of CRV, AMHS connection has been implemented with the following adjacent FIR's; **-HONG KONG** **-TAIPEI** **-SINGAPORE** **-OAKLAND**

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
			OAKLAND – 1st test to be scheduled, target 3Q2021		
REPUBLIC OF KOREA	Plan to upgrade AMHS support IWXXM from 2023 over CRV Frequentice 1) AMHS/CRV IOT with China and Japan in 4Q of 2021 2) AMHS/CRV POT with China and Japan in 4Q 2022 3) Cutover to AMHS/CRV with Chi na and Japan in Q1 2023 after POT 4) Implementation of AMHS/CRV with Japan Q1 2023	FREQUENTIS	AIDC implemented between ACC and Fukuoka ATMC in 2010 AIDC between Incheon and Dalian implemented in Nov. 2016.	Rockheed Martin System	
SINGAPORE	AMHS implemented with: 1) AMHS circuit with India put into operational use in Mar 2011. 2) AMHS circuit with UK put into operational use in Mar 2012. 3) AMHS circuit with Thailand put into operational use in Dec 2014. 4) AMHS circuit with Australia put into operational use in Oct 2016. 5) AMHS circuit with Indonesia put into operational use in Feb 2018.	FREQUENTIS COMSOFT	1) Operational with Ho Chi Minh implemented Jul 2014. 2) Kuala Lumpur operational trial started since Sep 2018 and is implemented Nov 2019.	THALES supports ICD Version 3 since December 2018	

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
	6) AMHS circuit with Malaysia put into operational in Mar 2020. 7) AMHS circuit with Japan put into operational in Dec 2020. 8) AMHS circuit with Philippines put into operational in Dec 2020. Inter-Operability Test (IOT) with Vietnam started in 2019. IOT with Sri Lanka, Bahrain and Brunei to be confirmed.		3) Implemented with Kuching ATCC in Feb 2021. 4) Operational trial ongoing with Kota Kinabalu ATCC since Nov 2020 and implementation date on 1st July 2021. 5) Manila operational trial started in Feb 2019. Implementation Nov 2019. 6) Technical trials with Jakarta ACC will be initiated once the Jakarta ACC ATMS renewal is completed.		
SRI LANKA	ATN BIS Router Planned for 2013. IP based AMHS implemented by Oct. 2017. - Mumbai tested May 2017 operational planned for Q4 2017; - Singapore testing in Q4 2017 operational for 2018;	IDS	Trials with Male planned for in 3Q2019. Trial with Chennai on-going. Plan for implementation in 2018	INTELCAN which is able to support ICD Version 3.	

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
	- Male testing and operational date TBD.		and with Melbourne plan for 1Q2018.		
THAILAND	BBIS/BIS Routers already implemented. AMHS has been implemented since July 2011. Connection with Bangladesh, Bhutan, Cambodia, China, India, Lao PDR, Myanmar, Singapore, Hong Kong China, and Malaysia implemented. Bangkok -Viet Nam Circuit · IOT Test: Done · POT Test: Planned for end of 3Q2021 Bangkok - Rome Circuit · IOT Test: Planned for 3Q2021 Connection with SITA (SITA AMHS Gateway inter-connections) implemented. · POT Test: Planned for end of 4Q2021	AEROTHAI's AMHS System	The implementation with · Malaysia has done since 14th March 2020 · Lao PDR has done since 14th July 2020 · Cambodia has done on 22nd February 2021 In addition, it is planned to implement AIDC with Myanmar.	THALES which supports AIDC feature, APAC AIDC ICD V.3.	

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
TONGA	AMHS planned for 2008. The provider is linked to the New Zealand AFTN				CPDLC and ADS-C is not considered for lower airspace
UNITED STATES	- Australia - Fiji - New Zealand - Japan - Philippines - Papua New Guinea (2021) - Indonesia (2022) - Russia (Planned)	IN-HOUSE	- Fiji, Japan, New Zealand - Tahiti (via New Zealand), - Papua New Guinea via Australia (Direct planned for 2021) - Philippines (2021) - Indonesia via Australia (Direct planned for 2022) - Russian Federation (pending joining CRV)	IN-HOUSE which is able to support APAC and NAT ICDs currently Version 2.	
VANUATU					

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
VIET NAM	AMHS (basic) implemented from 4Q/2018. Plan AMHS extended from Q4 2022 IOT with Singapore from 10/2019 to 8/2020 IOT with Hong Kong 12/2019 IOT with Thailand 6/2020, POT 8/2020.	IN-HOUSE	Operational between Ho Chi Minh and Singapore since July 2014. Operational trial for additional messages sets on-goning. Technical testing between Ho Chi Minh with Philippines on going Technical testing with Cambodia already done; Technical testing between Hanoi and Vientiane, Lao. PDR. already done with Malaysia TBC For operation trial TBC. Operation trial between Ho Chi Minh and Hanoi ongoing.	Support ICD Version 1.0 with THALES at Ho Chi Minh ATM system. Support ICD Version 3.0 with Selex at Hanoi ATM System.	

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
Wallis and Futuna (FRANCE)	AMHS implementation planned for end of 2017			COMSOFT	

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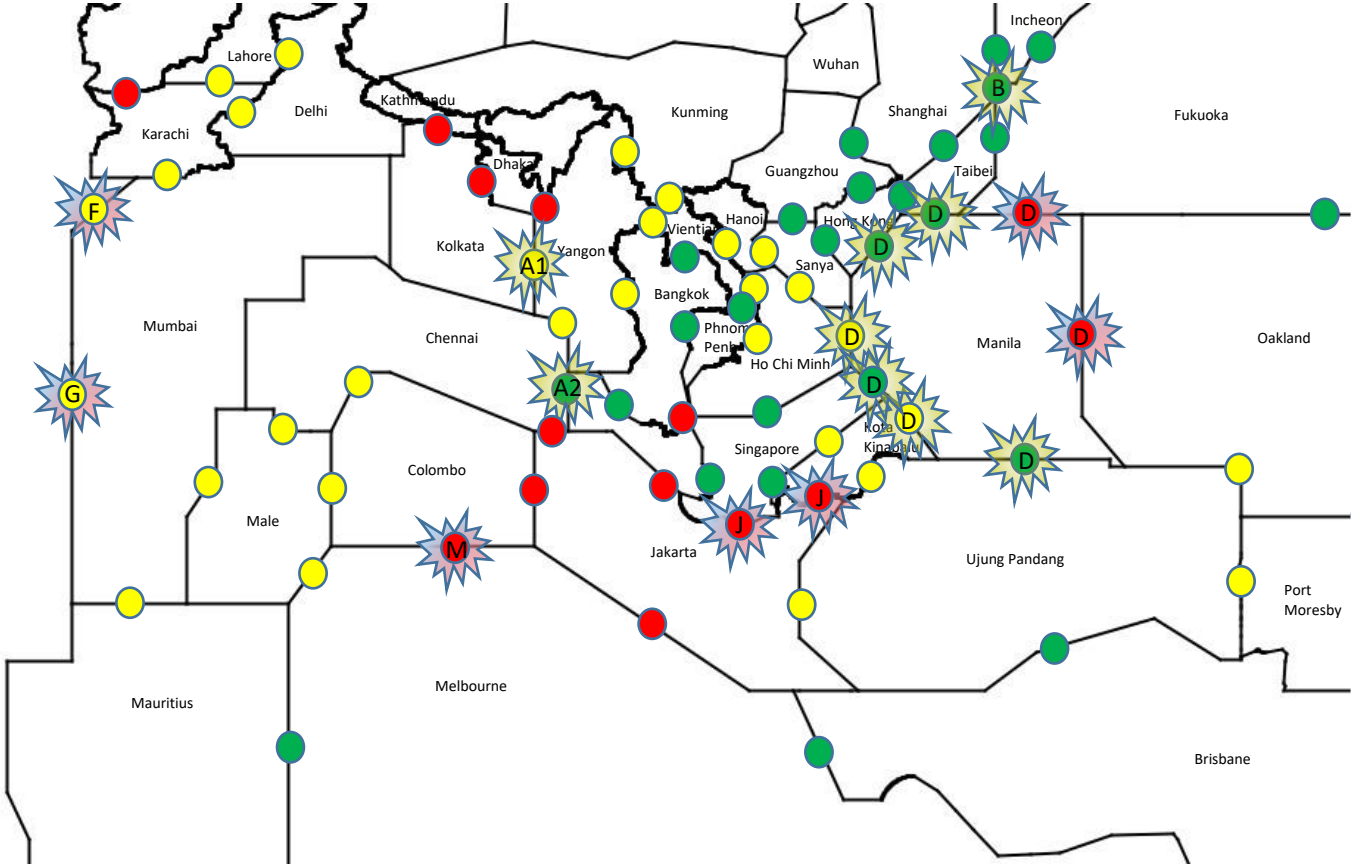

AsiaPac AIDC Implementation Status (Jun 2021)

AIDC ISSUES FORM - APA TF/7 (2021)

Issue reference	Reporting State/ATSU	Pairing FIR1/FIR2	Date of Reported	Date of Occurrence	Fault Category	Description of Fault	Frequency	Priority (assessed by TF or RO)	ATSU/ Vendor	Actions Taken/ Updated Date	
1	2	3	4	5	6	7	8	9	10	11	12
AIDC-ISSUE-1	Australia / Brisbane ACC Australia / Melbourne ACC	Brisbane / Melbourne	2016-01-02	-	b. ATM System, or	Limited AIDC V3 compliance (partial compliance on block levels only, no weather deviations or other optional formats)	Frequent	Low	Brisbane ACC & Melbourne ACC/ THALES	Software limitation / 02Jan2016	**OPEN**
AIDC-ISSUE-2	Australia / Brisbane ACC Australia / Melbourne ACC	Brisbane / Melbourne	2016-01-02	-	b. ATM System, or	LRM may contain incorrect field number	Occasionally	Low	Brisbane ACC & Melbourne ACC/ THALES	Software limitation / 02Jan2016	**OPEN**
AIDC-ISSUE-3	Australia / Brisbane ACC Australia / Melbourne ACC	Brisbane / Melbourne	2016-01-02	-	b. ATM System, or	Limited CDN capability. Limited ability to transmit CDN messages, and cannot always correctly process received CDN messages	Occasionally	Low	Brisbane ACC & Melbourne ACC/ THALES	Software limitation / 02Jan2016	**OPEN**
AIDC-ISSUE-4	Australia / Brisbane ACC Australia / Melbourne ACC	Brisbane / Melbourne	2016-01-02	-	b. ATM System, or	Unable to process a received CPL message	Occasionally	Low	Brisbane ACC & Melbourne ACC/ THALES	Software limitation / 02Jan2016	**OPEN**
AIDC-ISSUE-5	Australia / Brisbane ACC Australia / Melbourne ACC	Brisbane / Melbourne	2016-01-02	-	b. ATM System, or	Only a limited number of characters (250) in Field 18 are supported.	Occasionally	Low	Brisbane ACC & Melbourne ACC/ THALES	Software limitation / 02Jan2016	**OPEN**
AIDC-ISSUE-6	Australia / Brisbane ACC Australia / Melbourne ACC	Brisbane / Melbourne	2016-01-02	-	b. ATM System, or	No support for AIDC messages developed in AIDC V2 and onwards (e.g. FAN, FCN, ADS, TRU etc.).	Frequent	Low	Brisbane ACC & Melbourne ACC/ THALES	Software limitation / 02Jan2016	**OPEN**
AIDC-ISSUE-7	India / Delhi ACC	Delhi / Lahore	2020-07-01	-	b. ATM System, or	Messages from Lahore to Delhi like ABI were rejected by Delhi system due to Error Message 61 (CRC Error). No AIDC messages being received from Lahore as per latest observation.	Frequent	High	Delhi ACC/ INDRA	Error is perhaps because Lahore System is generating extra spaces. Lahore should start the AIDC coordination with Delhi. There should be joint observation and exercise conducted to assess the status.	**OPEN**
AIDC-ISSUE-8	India / Delhi ACC	Delhi / Karachi	2020-07-01	-	b. ATM System, or	Messages from Karachi to Delhi like ABI were rejected by Delhi system due to Error Message 61 (CRC Error). Karachi has done changes through OEM. The problem still persists with majority of error message 61 and 57 as per latest observation.	Frequent	High	Delhi ACC/ INDRA	Error is perhaps because Karachi ATM system is generating extra spaces. Action is required at Karachi to avoid generation of extra spaces. Karachi should start the AIDC coordination with Delhi. There should be joint observation and exercise conducted to assess the status.	**OPEN**
AIDC-ISSUE-9	India / Delhi ACC	Delhi / Varanasi	2020-01-07	-	a. Communication Link, or	Two test trials were conducted with good results.Trial operations are going on. AFTN latency issues observed at times. TOC and AOC msg not successfully handled by INDRA ATM system at Delhi..Hardware and software issues with ATC automation system at Varanasi. Issues with Flightplan also observed.	Occasionally	Low	Delhi ACC/ INDRA Varanasi ACC/ INDRA	The Issues are being taken up with vendors.	**OPEN**
AIDC-ISSUE-10	India / Delhi ACC	Delhi / Nagpur	2020-07-01	-	a. Communication Link, or	Observational trials conducted in March 2020. AFTN latency issues observed at times. TOC and AOC message not successfully handled by INDRA ATM system at Delhi. Hardware and software issues with ATC automation system at Nagpur. Issues of missing FPL also observed.	Occasionally	Low	Delhi ACC/ INDRA Nagpur ACC/ INDRA	The Issues are being taken up with vendors.	**OPEN**

Issue reference	Reporting State/ATSU	Pairing FIR1/FIR2	Date of Reported	Date of Occurrence	Fault Category	Description of Fault	Frequency	Priority (assessed by TF or RO)	ATSU/ Vendor	Actions Taken/ Updated Date	
AIDC-ISSUE-11	India / Delhi ACC	Delhi / Ahmedabad	2020-07-01	-	a. Communication Link, or	New LOA signed. Coordination between Ahmedabad and Delhi happening mainly through AIDC. AFTN latency issues observed at times. TOC and AOC messages not successfully handled by INDRA ATM system at Delhi. For some flights AIDC messages not generated. Hardware and software issues with ATC automation system at Ahmedabad.	Occasionally	Low	Delhi ACC/ INDRA Ahmedabad ACC/ INDRA	The issues are being taken up with vendors.	**OPEN**
AIDC-ISSUE-12	India / Ahmedabad ACC	Ahmedabad / Nagpur	-	-	a. Communication Link, or	AFTN latency issues observed at times. AFTN (AMSS) to be upgraded to support unimpeded AIDC message handling.	Occasionally	High	Ahmedabad ACC/ INDRA	New AMSS installation at Nagpur has been proposed. Same is under process. / 30Jan2018	**OPEN**
AIDC-ISSUE-13	India / Ahmedabad ACC	Ahmedabad / Karachi	2014-06-04	-	c. AIDC Message, or	ABI messages exchanged between two system and messages were rejected due route error and mismatch in coordination timing. Modification in airways was required for Ahmedabad and Karachi DBM. On 12 June 2014 required modification were made in airways (like imaginary points) for effectively acceptance of AIDC messages. ABI messages of some of the aircrafts were not correlated with FPL available in ATS automation system. Karachi has done changes through OEM. Re-testing is in progress.	Frequent	High	Ahmedabad ACC/ INDRA	Coordination protocol dialogue timeout was observed. Karachi AMSS-AFTN system time was also synchronized. Automatic time synchronization through GPS server in AMSS-AFTN system at Ahmedabad and Karachi was done for smooth exchange of AIDC messages. Rejection of AIDC messages have reduced / 30Nov2015	**CLOSED**
AIDC-ISSUE-14	India / Varanasi ACC	Varanasi / Nagpur	-	-	b. ATM System, or	AFTN (AMSS) to be upgraded at Nagpur to support unimpeded AIDC message handling. Some HMI issues at both the stations.	Frequent	Low	Varanasi ACC/ INDRA Nagpur ACC/ INDRA	New AMSS installation at Nagpur has been proposed. Same is under process / 30Jan2018	**OPEN**
AIDC-ISSUE-15	India / Kolkata ACC	Kolkata / Varanasi	-	-	b. ATM System, or	Some HMI issues at Varanasi. AIDC has been suspended.	Frequent	Low	Kolkata ACC/ INDRA Varanasi ACC/ INDRA	Nil / 1July2020	**OPEN**
AIDC-ISSUE-16	India / Kolkata ACC	Kolkata / Nagpur	-	-	b. ATM System, or	AFTN (AMSS) to be upgraded to support unimpeded AIDC message handling. Some HMI issues at Nagpur. AIDC has been suspended	Frequent	Low	Kolkata ACC/ INDRA Nagpur ACC/ INDRA	New AMSS installation at Nagpur has been completed / 1July2020	**OPEN**
AIDC-ISSUE-17	India / Kolkata ACC	Kolkata / Chennai	-	-	a. Communication Link, or	LOA signed and AIDC Under trial phase. 1. The ICAO route truncation indicator is not supported by INDRA system. 2. Kolkata system does not support adaptation of multiple center name for one ACC. Therefore different AIDC parameters cannot be adapted for different sectors like OCC and ACC sectors posing operational problems.	Occasionally	Medium	Kolkata ACC/ INDRA Chennai ACC/ RAYTHEON	Chennai has supressed ABI transmission/reception processing.	**OPEN**
AIDC-ISSUE-18	India / Chennai ACC	Chennai / Nagpur	-	-	b. ATM System, or	The ICAO route truncation indicator is not supported by Aircon2100 system.	Occasionally	Medium	Chennai ACC/ RAYTHEON Nagpur ACC/ INDRA	New AMSS installation at Nagpur has been proposed. Same is under process. / 30Jan2018	**OPEN**

Issue reference	Reporting State/ATSU	Pairing FIR1/FIR2	Date of Reported	Date of Occurrence	Fault Category	Description of Fault	Frequency	Priority (assessed by TF or RO)	ATSU/ Vendor	Actions Taken/ Updated Date	
AIDC-ISSUE-19	India / Chennai ACC	Chennai / Colombo	2015-08-06 2015-10-06 2015-12-06	-	b. ATM System, or	Though the initial test in November 2014 was quite successful. The test in June 2015 were not successful, due to technical issues at Colombo. Re-testing have to be done after rectification at Colombo. The re-testing was done after rectification of identified technical issues at Colombo. Testing was successful. Will start trials for limited hours.	Rare	Low	Chennai ACC/ RAYTHEON	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-20	India / Chennai ACC	Chennai / Maldives	2014-11-25	-	c. AIDC Message, or	Trials were mostly successful barring some LRMs, like reference ID in ODF 3 is not as per ICD.	Rare	Medium	Chennai ACC/ RAYTHEON Maldives ACC/ SELEX	Message transaction rate is 100% and the message delivery was successful / 30Nov2015	**CLOSED**
AIDC-ISSUE-21	India / Chennai ACC	Chennai / Trivandrum	-	-	b. ATM System, or	Even after sending a rejection or counter coordination message by Chennai, the sending station continues to send the CDN message. The ICAO route truncation indicator is not supported by INDRA Aircon 2100 system.	Occasionally	Medium	Chennai ACC/ RAYTHEON Trivandrum ACC/ INDRA	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-22	India / Chennai ACC	Chennai / Mangalore	-	-	b. ATM System, or	Even after sending a rejection or counter coordination message by Chennai, the sending station continues to send the CDN message.	Occasionally	Medium	Chennai ACC/ RAYTHEON	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-23	India / Chennai ACC	Chennai / Trichy	-	-	b. ATM System, or	Even after sending a rejection or counter coordination message by Chennai, the sending station continues to send the CDN message.	Occasionally	Medium	Chennai ACC/ RAYTHEON	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-24	India / Chennai ACC	Chennai / Hyderabad	-	-	b. ATM System, or	The SSR Codes received through AIDC message are getting retained in Chennai FDPS for days and are not available for re-use. Controller have to use Chennai adapted pool of limited SSR codes for track correlation. As a result the adapted Chennai pool of SSR codes gets exhausted very soon. AIDC testing is temporarily suspended.	Frequent	High	Chennai ACC/ RAYTHEON Hyderabad ACC/ SELEX	SSR code issue at Chennai resolved / 29Mar2019	**CLOSED**
AIDC-ISSUE-25	India / Chennai ACC	Chennai / Bengaluru	2015-03-24	-	b. ATM System, or	The SSR Codes received through AIDC message are getting retained in Chennai FDPS for days and are not available for re-use. Controller have to use Chennai adapted pool of limited SSR codes for track correlation. As a result the adapted Chennai pool of SSR codes gets exhausted very soon. AIDC testing is temporarily suspended.	Rare	High	Chennai ACC/ RAYTHEON	SSR code issue at Chennai resolved / 29Mar2019	**CLOSED**
AIDC-ISSUE-26	India / Mumbai ACC	Mumbai / Ahmedabad	-	-	b. ATM System, or	Some HMI issues at Ahmedabad	Frequent	Low	Mumbai ACC/ RAYTHEON Ahmedabad ACC/ INDRA	Nil / 30 Jun 2020	**CLOSED**
AIDC-ISSUE-27	India / Mumbai ACC	Mumbai / Nagpur	-	-	b. ATM System, or	Some HMI issues at Nagpur.	Frequent	Low	Mumbai ACC/ RAYTHEON Nagpur ACC/ INDRA	Nil / 30 Jun 2020	**CLOSED**
AIDC-ISSUE-28	India / Ahmedabad ACC	Ahmedabad / Nagpur	-	-	b. ATM System, or	Some HMI issues at Nagpur.	Frequent	Low	Ahmedabad ACC/ INDRA Nagpur ACC/ INDRA	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-29	India / Kolkata ACC	Kolkata / Chennai	-	-	e. Others.	Under trial phase. The acceptance of EST message is in manual mode.	Frequent	Low	Kolkata ACC/ INDRA Chennai ACC/ RAYTHEON	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-30	India / Chennai ACC	Chennai / Nagpur	-	-	b. ATM System, or	The ICAO route truncation indicator is not supported by INDRA Aircon 2100 system.	Frequent	Medium	Chennai ACC/ RAYTHEON Nagpur ACC/ INDRA	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-31	India / Chennai ACC	Chennai / Maldives	-	-	b. ATM System, or	Seconds field included in lat/long is received which is not as per ICD.	Frequent	Low	Chennai ACC/ RAYTHEON Maldives ACC/ SELEX	Message transaction rate is 100% and the message delivery was successful / 30Nov2015	**CLOSED**

Issue reference	Reporting State/ATSU	Pairing FIR1/FIR2	Date of Reported	Date of Occurrence	Fault Category	Description of Fault	Frequency	Priority (assessed by TF or RO)	ATSU/ Vendor	Actions Taken/ Updated Date	
AIDC-ISSUE-32	India / Chennai ACC	Chennai / Trivandrum	-	-	b. ATM System, or	The ICAO route truncation indicator is not supported by INDRA Aircon 2100 system.	Frequent	Medium	Chennai ACC/ RAYTHEON Trivandrum ACC/ INDRA	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-33	India / Chennai ACC	Chennai / Mangalore	-	-	b. ATM System, or	The ICAO route truncation indicator is not supported by INDRA Aircon 2100 system.	Frequent	Medium	Chennai ACC/ RAYTHEON	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-34	India / Chennai ACC	Chennai / Trichy	-	-	b. ATM System, or	The ICAO route truncation indicator is not supported by INDRA Aircon 2100 system.	Frequent	Medium	Chennai ACC/ RAYTHEON	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-35	India / Chennai ACC	Chennai / Nagpur	-	-	d. Airspace Design/Procedures, or	Airspace configuration issue.	Frequent	Medium	Chennai ACC/ RAYTHEON Nagpur ACC/ INDRA	Nil / 30Jan2018 25th April 2019	**CLOSED**
AIDC-ISSUE-36	India / Chennai ACC	Chennai / Trivandrum	-	-	d. Airspace Design/Procedures, or	Due to dynamic sectorization of UTV between Chennai and Trivandrum, no AIDC coodination is possible for overflying aircraft. But AIDC is possible for aircraft departing/arriving from/to destinations within the lateral limits of UTV. AIDC coordination not possible for level changes after the initial coordination. NOTIFIED (ABI), INITIAL COORDINATION (EST, CPL), TRANSFER OF CONTROL (TOC, AOC) is possible.	Frequent	Medium	Chennai ACC/ RAYTHEON Trivandrum ACC/ INDRA	The problem can be resolved by permanantly handing over UTV either to Chennai or Trivandrum / 30Jan2018	**OPEN**
AIDC-ISSUE-37	India / Chennai ACC	Chennai / Mangalore	-	-	d. Airspace Design/Procedures, or	Airspace configuration issue.	Frequent	Medium	Chennai ACC/ RAYTHEON	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-38	India / Chennai ACC	Chennai / Trichy	-	-	d. Airspace Design/Procedures, or	Airspace configuration issue.	Frequent	Medium	Chennai ACC/ RAYTHEON	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-39	India / Kolkata ACC	Kolkata / Chennai	-	-	a. Communication Link, or	AFTN latency issues observed at times.	Occasionally	Low	Kolkata ACC/ INDRA Chennai ACC/ RAYTHEON	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-40	Indonesia / Ujung Pandang ACC	Ujung Pandang / Brisbane	2015-12-03	2010-10-10	b. ATM System, or	The system does not rise notification or alert to Controller when the messages sent and not replied by LAM (no ULAM).	Frequent	Medium	Ujung Pandang ACC/ THALES Brisbane ACC/ THALES	It was a software issue and the software has been upgraded / 21Dec2015	**CLOSED**
AIDC-ISSUE-41	Indonesia / Ujung Pandang ACC	Ujung Pandang / Kinabalu	2015-12-28	2015-12-28	c. AIDC Message, or	Received wrong header of ODF3 from Kinabalu system	Occasionally	High	Ujung Pandang ACC/ THALES Kinabalu ACC/ LEONARDO	Investigation has been carried out by Ujung Pandang and Kinabalu and the issue has been solved since Kinabalu has completely upgrade their ATM system / 5Sep2019	**CLOSED**
AIDC-ISSUE-42	Indonesia / Ujung Pandang ACC	Ujung Pandang / Brisbane	2015-08-01	-	d. Airspace Design/Procedures, or	Ujung Pandang sent back some EST from Brisbane with different time of COP	Occasionally	Medium	Ujung Pandang ACC/ THALES Brisbane ACC/ THALES	It was a software issue and the software has been upgraded. And also there are some modifications in the dataset to solve this problem / 14Dec2015	**CLOSED**
AIDC-ISSUE-43	Indonesia / Ujung Pandang ACC	Ujung Pandang / Brisbane	2015-09-01	-	a. Communication Link, or	There are some AIDC messages between Ujung Pandang and Brisbane which have transit time more than 180 seconds (3 minutes). The AFTN line between Ujung Pandang and Brisbane is routing via Jakarta.	Occasionally	High	Ujung Pandang ACC/ THALES Brisbane ACC/ THALES	Since 10 March 2018 direct communication link (AFTN) has been connected. Need to test and trial in exchanging messages / 10Mar2018	**CLOSED**
AIDC-ISSUE-44	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Chennai	2016-03-01	-	e. Others.	We received a lot of complains that Chennai controller didn't respond to CDN.	Frequent	Medium	Kuala Lumpur ATCC/ SELEX Chennai ACC/ RAYTHEON	Call Chennai Oceanic to respond the CDN request / 29Jul2016	**OPEN**

Issue reference	Reporting State/ATSU	Pairing FIR1/FIR2	Date of Reported	Date of Occurrence	Fault Category	Description of Fault	Frequency	Priority (assessed by TF or RO)	ATSU/ Vendor	Actions Taken/ Updated Date	
AIDC-ISSUE-45	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Chennai	2016-03-01	-	c. AIDC Message, or	Received LRM on ABI for Item 18 (LRM-RMK/48/18/)	Frequent	Medium	Kuala Lumpur ATCC/ SELEX Chennai ACC/ RAYTHEON	SELEX still investigate this problem. The same AFTN message with item 18 received through FDP system but no error detected. Showing that the ABI-AFTN message format is correct but AIDC system unable to process it / 29Jul2016	CLOSED
AIDC-ISSUE-46	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Chennai	2016-03-01	-	b. ATM System, or	AIDC system send more than three times CDN for time revision.	Frequent	Medium	Kuala Lumpur ATCC/ SELEX Chennai ACC/ RAYTHEON	This problem happen because we had set our AIDC system that CDN will send automatically if there is a time revision more than 3 minutes. Due to complain from Chennai, we stop the automatic send and instruct our Controllers to send all CDN message, including time revision manually / 29Jul2016	CLOSED
AIDC-ISSUE-47	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Chennai	2016-03-01	-	c. AIDC Message, or	Did not receive ACP on EST. After 180 seconds system triggered LRM	Frequent	Medium	Kuala Lumpur ATCC/ SELEX Chennai ACC/ RAYTHEON	This was due to latency of receiving the ACP message. Change the ACP parameter from 180 seconds to 255 seconds / 29Jul2016	CLOSED
AIDC-ISSUE-48	Maldives / Maldives ACC	Maldives / Melbourne	2014-09-17	-	c. AIDC Message, or	Melbourne reported a small number of messages contain a route designator in Field 15 prior to entry COP.	Occasionally	Medium	Maldives ACC/ SELEX Melbourne ACC/ THALES	Vendor investigated and provided updated software / 22May2015	CLOSED
AIDC-ISSUE-49	Maldives / Maldives ACC	Maldives / Colombo	2014-03-13	-	c. AIDC Message, or	Colombo reported Message ID out to VCCC had wrong ID sent from our system.	Frequent	High	Maldives ACC/ SELEX	Configuration corrected / 15Mar2014	CLOSED
AIDC-ISSUE-50	Maldives / Maldives ACC	Maldives / Colombo	2014-04-06	-	b. ATM System, or	When Male sends ABI message within Colombo domestic squawk range, it causes complication in their system.	Frequent	High	Maldives ACC/ SELEX	Colombo changed their domestic SSR code allocation / 16Mar2015	CLOSED
AIDC-ISSUE-51	Maldives / Maldives ACC	Maldives / Melbourne	2014-09-17	-	c. AIDC Message, or	Melbourne reported that Field 15 route information contains seconds in the latitude/longitude information generated from our system.	Occasionally	Medium	Maldives ACC/ SELEX Melbourne ACC/ THALES	Vendor investigated and provided updated software / 22May2015	CLOSED
AIDC-ISSUE-52	Maldives / Maldives ACC	Maldives / -	2014-11-25	-	c. AIDC Message, or	Reference ID of Optional Data Field 3 (ODF) is incorrect in message received by VOMM.	Frequent	Medium	Maldives ACC/ SELEX	Vendor investigated and provided updated software / 22May2015	CLOSED
AIDC-ISSUE-53	Maldives / Maldives ACC	Maldives / -	2014-11-25	-	c. AIDC Message, or	Chennai automation system rejected latitude/longitude represented with seconds (041627N0733138E).	Occasionally	Medium	Maldives ACC/ SELEX	Vendor investigated and provided updated software / 22May2015	CLOSED
AIDC-ISSUE-54	Maldives / Maldives ACC	Maldives / Colombo	2015-11-19	-	c. AIDC Message, or	Colombo reported LRM received from VRMM saying invalid SSR equipment in FPL.	Occasionally	Medium	Maldives ACC/ SELEX	Configuration changed / 23Feb2016	CLOSED
AIDC-ISSUE-55	Maldives / Maldives ACC	Maldives / Colombo	2015-11-19	-	c. AIDC Message, or	ABI and CPL message in ICAO 2012 FPL format sent from Colombo rejected.	Occasionally	High	Maldives ACC/ SELEX	Software updated / 23Feb2016	CLOSED
AIDC-ISSUE-56	Singapore / Singapore ACC	Singapore / -	2015-11-11	-	c. AIDC Message, or	Rejection of ABI message due to unknown point in route	Occasionally	Low	Singapore ACC/ THALES	Need to update ATMS dataset to include SIDs-STARs that may be filed by operator / 17Nov2015	CLOSED

Issue reference	Reporting State/ATSU	Pairing FIR1/FIR2	Date of Reported	Date of Occurrence	Fault Category	Description of Fault	Frequency	Priority (assessed by TF or RO)	ATSU/ Vendor	Actions Taken/ Updated Date	
AIDC-ISSUE-57	Singapore / Singapore ACC	Singapore / -	2015-11-11	-	d. Airspace Design/Procedures, or	Rejected EST message due to invalid flight plan state (coordinated) were queued in erroneous folder.	Occasionally	Low	Singapore ACC/ THALES	Air Traffic Control Support Officer would verify the information on the EST message against the coordinated flight plan. To follow up with the upstream ATSU if any discrepancies were discovered / 12Nov2015	CLOSED
AIDC-ISSUE-58	Singapore / Singapore ACC	Singapore / -	2015-11-11	-	a. Communication Link, or	Message time out parameter set too short whereby ACP messages from downstream ATSU were not processed. More prevailing with network was busy.	Occasionally	High	Singapore ACC/ THALES	Need to update ATMS dataset to increase the timeout parameter / 17Nov2015	CLOSED
AIDC-ISSUE-59	Indonesia / Ujung Pandang ACC	Ujung Pandang / Brisbane	2018-01-11	-	b. ATM System, or	Received abnormal EST message (sent back EST) from Brisbane for southbound traffic that previously Ujung Pandang has already sent the EST	Rare	Low	Ujung Pandang ACC/ THALES Brisbane ACC/ THALES	Brisbane has been modified dataset parameter / 12May2018	CLOSED
AIDC-ISSUE-60	Indonesia / Ujung Pandang ACC	Ujung Pandang / Brisbane	2018-01-11	-	b. ATM System, or	Received MAC message from Brisbane for flight from YSSY to YMML	Rare	Low	Ujung Pandang ACC/ THALES Brisbane ACC/ THALES	Brisbane has been modified dataset parameter / 12May2018	CLOSED
AIDC-ISSUE-61	Indonesia / Ujung Pandang ACC	Ujung Pandang / Brisbane	-	-	b. ATM System, or	No response messages LAM or LRM were received (blank) from receiving unit as a reply for previous sent messages.	Frequent	High	Ujung Pandang ACC/ THALES Brisbane ACC/ THALES	There was a poor (unstable) connection in Jakarta's AMHS in that period occurrence date. Had been solved / 16Nov2019	CLOSED
AIDC-ISSUE-62	Indonesia / Ujung Pandang ACC	Ujung Pandang / -	2017-03-10	-	b. ATM System, or	ACP message does not process correctly. Coordination status field of the strip remains "S" and the ACP message is displayed in "Message_In" window	Frequent	High	Ujung Pandang ACC/ THALES	Investigation has been carried out by Ujung Pandang and categorized this problem as software issue / 11Feb2017	OPEN
AIDC-ISSUE-63	Indonesia / Ujung Pandang ACC	Ujung Pandang / Manila	2016-03-10	-	c. AIDC Message, or	AOC message format from Ujung Pandang does not contain ODF 3	Frequent	Medium	Ujung Pandang ACC/ THALES Manila ACC/ THALES	Since Manila used new ATM System (TopSky-HE) last year there was no AOC issue related to ODF3. Last AIDC test with Manila used TopSky-HE was generally good / 21Mar2018	CLOSED
AIDC-ISSUE-64	Indonesia / Ujung Pandang ACC	Ujung Pandang / Manila	2017-05-17	-	c. AIDC Message, or	ABI message from Manila's Topsky-C contained incomplete route of flight	Frequent	High	Ujung Pandang ACC/ THALES	Since Manila used new ATM System (TopSky-HE) last year there was no ABI issue. Last AIDC test with Manila used TopSky-HE was generally good / 21Mar2018	CLOSED
AIDC-ISSUE-65	Indonesia / Ujung Pandang ACC	Ujung Pandang / Manila	2017-05-17	-	b. ATM System, or	Manila's Topsky-C was continuously sending unnecessary ABI and EST messages	Frequent	High	Ujung Pandang ACC/ THALES	Since Manila used new ATM System (TopSky-HE) last year there was not current issue anymore. Last AIDC test with Manila used TopSky-HE was generally good / 21Mar2018	CLOSED
AIDC-ISSUE-66	India / Trivandrum ACC	Trivandrum / Mangalore	-	-	e. Others.	AIDC coordination not possible for Level changes after the initial coordination. ABI, EST, CPL, TOC and AOC is possible.	Frequent	High	Trivandrum ACC/ INDRA	Nil / 30Jan2018	OPEN
AIDC-ISSUE-67	India / Trivandrum ACC	Trivandrum / Cochin	-	-	b. ATM System, or	AIDC coordination not possible for level changes after the initial coordination. ABI, EST, CPL, TOC and AOC is possible.	Frequent	High	Trivandrum ACC/ INDRA	Nil / 30Jan2018	OPEN

Issue reference	Reporting State/ATSU	Pairing FIR1/FIR2	Date of Reported	Date of Occurrence	Fault Category	Description of Fault	Frequency	Priority (assessed by TF or RO)	ATSU/ Vendor	Actions Taken/ Updated Date	
AIDC-ISSUE-68	Singapore / Singapore ACC	Singapore / Manila	2018-03-15	2018-03-12	b. ATM System, or	Link to ATMS is disabled after erroeous service message was received from message center	Frequent	Medium	Singapore ACC/ THALES Manila ACC/ THALES	Fault localized to physical link connection problem / 15Mar2019	CLOSED
AIDC-ISSUE-69	Singapore / Singapore ACC	Singapore / Kuala Lumpur	2018-03-15	2018-03-13	b. ATM System, or	Received *"LRM with error code"* upon transmission of messages	Occasionally	Low	Singapore ACC/ THALES Kuala Lumpur ATCC/ LEONARDO	Observation shared with Kuala Lumpur ACC for investigations / 15Mar2019	CLOSED
AIDC-ISSUE-70	Singapore / Singapore ACC	Singapore / Manila	2018-03-15	2018-03-12	b. ATM System, or	ABI message requirement for subsequent EST message processing	Frequent	High	Singapore ACC/ THALES Manila ACC/ THALES	Observation shared with Manila ACC for investigations / 15Mar2019	CLOSED
AIDC-ISSUE-71	Singapore / Singapore ACC	Singapore / Kuala Lumpur	2019-03-25	2018-12-14	b. ATM System, or	LRM messages recived 2 hours after initial AIDC message transmission	Occasionally	-	Singapore ACC/ THALES Kuala Lumpur ATCC/ LEONARDO	Observation shared with Kuala Lumpur ACC for investigations / 25Mar2019	CLOSED
AIDC-ISSUE-72	Singapore / Singapore ACC	Singapore / Kuala Lumpur	2019-03-25	2019-01-18	e. Others.	Invalid EST sent by ATMS	Rare	-	Singapore ACC/ THALES Kuala Lumpur ATCC/ LEONARDO	Fault traced to incorrect flight plan routing, causing FDP to designated the arrival flight as an re-entry flight / 25Mar2019	CLOSED
AIDC-ISSUE-73	Singapore / Singapore ACC	Singapore / Kuala Lumpur	2019-03-25	2019-01-22	b. ATM System, or	Non reception of EST messages	Occasionally	-	Singapore ACC/ THALES Kuala Lumpur ATCC/ LEONARDO	Investigations ongoing / 25Mar2019	CLOSED
AIDC-ISSUE-74	Singapore / Singapore ACC	Singapore / Kuala Lumpur	2019-03-25	2019-03-06	a. Communication Link, or	Unable to exchange AIDC messages	Occasionally	-	Singapore ACC/ THALES Kuala Lumpur ATCC/ LEONARDO	AFTN link outage / 25Mar2019	CLOSED
AIDC-ISSUE-75	Singapore / Singapore ACC	Singapore / Manila	2019-03-25	2019-02-20	b. ATM System, or	AOC/TOC message tranmission constraint	Frequent	-	Singapore ACC/ THALES Manila ACC/ THALES	Dataset settings on Manila ATMS for AOC/TOC messages / 25Mar2019	CLOSED
AIDC-ISSUE-76	Singapore / Singapore ACC	Singapore / Manila	2019-03-25	2019-03-11	b. ATM System, or	EST and ACP messages exchanged successfully but not reflected on controller display	Rare	High	Singapore ACC/ THALES Manila ACC/ THALES	Manila ATMS vendor has been informed on the observed issue. Investigations ongoing / 25Mar2019	CLOSED
AIDC-ISSUE-77	Indonesia / Ujung Pandang ACC	Ujung Pandang / Oakland	2019-04-10	2018-12-11	b. ATM System, or	REJ message was accepted but unable to display to Controller HMI and become rejected message in Flight Data HMI (filled in *AIDC_OTHER_QUE* window)	Rare	Medium	Ujung Pandang ACC/ THALES	Investigation has been carried out by Ujung Pandang and categorized this problem as software issue / 21Feb2020	**OPEN**
AIDC-ISSUE-78	India / Chennai ACC	Chennai / Hyderabad Chennai / Bengaluru	-	-	e. Others.	The SSR Codes received through AIDC message are getting retained in Chennai FDPS for days and are not available for re-use. Controller have to use Chennai adapted pool of limited SSR codes for track correlation. As a result, the adapted Chennai pool of SSR codes gets exhausted very soon.	Frequent	High	Chennai ACC/ RAYTHEON Bengaluru ACC/ SELEX Hyderabad ACC/ SELEX	SSR code issue at Chennai resolved 29-03-2019	CLOSED
AIDC-ISSUE-79	India / Kolkata ACC	Kolkata / Nagpur, Varanasi, Guwahati, Chennai	-	-	d. Airspace Design/Procedures, or	The route truncation is not supported by INDRA system , hence there is a likelihood of wrong route modification by ABI message in the accepting ATCC.	Frequent	High	Kolkata ACC/ INDRA Nagpur ACC/ INDRA Varanasi ACC/ INDRA Guwahati ACC/ INDRA Chennai ACC/ RAYTHEON		**OPEN**
AIDC-ISSUE-80	Maldives / Maldives ACC	Maldives / Colombo	-	-	b. ATM System, or	Colombo had an issue with their ABI message which was unsuccessful in all 7 AIDC test FPLs. Also their EST showed Error code 62. Rest of the other messages CPL, CDN, TOC, AOC are working perfectly.	Frequent	High	Maldives ACC/ SELEX	Colombo informed that they are consulting with their ATM vendor for the above errors.	**OPEN**

Issue reference	Reporting State/ATSU	Pairing FIR1/FIR2	Date of Reported	Date of Occurrence	Fault Category	Description of Fault	Frequency	Priority (assessed by TF or RO)	ATSU/ Vendor	Actions Taken/ Updated Date	
AIDC-ISSUE-81	India / Kolkata ACC	Kolkata / Yangon	2019-04-10	-	b. ATM System, or	Yangon trials in which ABI (from Kolkata to Yangon only) EST, TOC, AOC were successful. Kolkata system was not sending AIDC reference number in ACP messages for which Yangon system was rejecting it. But Kolkata rectified the issue with the support of vendor and ACP was successful. ABI from Yangon system sends the route from COP instead of one point before COP for which Kolkata system rejects the ABI from Yangon.	Frequent	Medium	Kolkata ACC/ INDRA Yangon ACC/ THALES	Yangon has been advised to rectify the issue through vendor/1Apr2019. Yangon has rectified the issue in last quarter of 2019. Further tests successful.	CLOSED
AIDC-ISSUE-82	Indonesia / Ujung Pandang ACC	Ujung Pandang / Manila	2020-05-25	2020-04-02	b. ATM System, or	Multiple EST message transmitted from Ujung Pandang to Manila	Occasionally	High	Ujung Pandang ACC/ THALES Manila ACC/ THALES	Investigation has been carried out by Ujung Pandang. Some modifications in dataset parameter related to message transmition value and condition has been changed / 22Nov2020	CLOSED
AIDC-ISSUE-83	Indonesia / Ujung Pandang ACC	Ujung Pandang / Manila	2020-07-09	2019-11-02	d. Airspace Design/Procedures, or	Ujung Pandang's controller activated flight data record prior to AIDC EST message transmitted by Manila. This occurrence happened due Manila verbally coordinated FL which is not accordance with FLAS (Flight Level Allocation Scheme).	Frequent	High	Ujung Pandang ACC/ THALES Manila ACC/ THALES	Published temporary SOP for Controller not to manually activate flight data record for which an AIDC EST is expected / 1Dec2019	CLOSED
AIDC-ISSUE-84	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Chennai	2020-07-07	2020-01-02	c. AIDC Message, or	ACP for Chennai EST & CDN were responded timely but Chennai responded with LRM-RMK/5/3.	Frequent	Medium	Kuala Lumpur ATCC/ LEONARDO Chennai ACC/ RAYTHEON	-	OPEN
AIDC-ISSUE-85	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Chennai	2020-07-07	2020-01-02	c. AIDC Message, or	Chennai responded LRM-RMK/57/ (invalid message) for ABI/EST messages though ABI/EST sent were valid.	Frequent	Medium	Kuala Lumpur ATCC/ LEONARDO Chennai ACC/ RAYTHEON	-	OPEN
AIDC-ISSUE-86	Philippines / Manila ACC	Manila / Kinabalu	2019-10-22	2019-10-22	b. ATM System, or	Manila received multiple ABI of RBA635 and JAL720 during AIDC test with Kinabalu	Rare	Low	Manila ACC/ THALES Kinabalu ACC/ LEONARDO	Kinabalu has been advised this issue. Will be observed again in the next AIDC test /	OPEN
AIDC-ISSUE-87	Singapore / Singapore ACC	Singapore / Kinabalu	2021-02-01	2021-05-28	b. ATM System, or	Multiple FDRs exist, unable to complete AIDC transaction	Occasionally	Medium	Singapore ACC/ THALES Kinabalu ATCC/ LEONARDO	Ensure flightplan records in ATMS is up to date	CLOSED
AIDC-ISSUE-88	Singapore / Singapore ACC	Singapore / Kinabalu	2021-03-01	2021-05-28	b. ATM System, or	Message not compatible with FP state	Occasionally	Medium	Singapore ACC/ THALES Kinabalu ATCC/ LEONARDO	Ensure flightplan state is updated correctly	CLOSED
AIDC-ISSUE-89	Singapore / Singapore ACC	Singapore / Kinabalu	2021-04-01	2021-05-28	b. ATM System, or	ACT entry time outside window	Occasionally	Medium	Singapore ACC/ THALES Kinabalu ATCC/ LEONARDO	ATMS parameter reconfiguration/software change	OPEN
AIDC-ISSUE-90	Philippines / Manila ACC	Manila / Singapore	2020-01-27	2020-01-27	b. ATM System, or	No AIDC transfer was made due negative FPL (other aircraft)	Occasionally	Medium	Manila ACC/ THALES Singapore ACC/ THALES	Provide appropriate FPL entry	CLOSED
AIDC-ISSUE-91	Philippines / Manila ACC	Manila / Singapore	2020-02-26	2020-02-26	b. ATM System, or	No TOC was received from Singapore ACC for CEB538	Occasionally	Medium	Manila ACC/ THALES Singapore ACC/ THALES	Correcting time discrepancies on system FPL	CLOSED
AIDC-ISSUE-92	Philippines / Manila ACC	Manila / Singapore	2020-09-21	2020-09-21	b. ATM System, or	No EST message received	Occasionally	Medium	Manila ACC/ THALES Singapore ACC/ THALES	Provide appropriate FPL entry	CLOSED
AIDC-ISSUE-93	Philippines / Manila ACC	Manila / Hong Kong	2020-08-03	2020-08-03	b. ATM System, or	Failed EST for CPA104, CPA198 and CSN306. Voice transfer was made to Hong Kong.	Occasionally	Medium	Manila ACC/ THALES	Correcting time discrepancies on system FPL	CLOSED
AIDC-ISSUE-94	Philippines / Manila ACC	Manila / Hong Kong	2020-09-19	2020-09-19	b. ATM System, or	No AIDC transfer was made due negative FPL (Qatar Airlines)	Frequent	Medium	Manila ACC/ THALES	Corresponded with air operator to supply Manila with FPL	CLOSED
AIDC-ISSUE-95	Philippines / Manila ACC	Manila / Hong Kong	2020-10-13	2020-10-13	b. ATM System, or	Failed EST ACT entry time outside window	Occasionally	Medium	Manila ACC/ THALES	Correcting time discrepancies on system FPL	CLOSED
AIDC-ISSUE-96	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Chennai	2021-05-28	2021-01-11	b. ATM System, or	Calculated CRC was not tally with received CRC.	Frequent	High	Kuala Lumpur ATCC/ LEONARDO Chennai OCC/ RAYTHEON	-	OPEN

Issue reference	Reporting State/ATSU	Pairing FIR1/FIR2	Date of Reported	Date of Occurrence	Fault Category	Description of Fault	Frequency	Priority (assessed by TF or RO)	ATSU/ Vendor	Actions Taken/ Updated Date	
AIDC-ISSUE-97	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Chennai	2021-05-28	2021-01-13	d. Airspace Design/Procedures, or	Late response by Chennai for CDN messages. Agreed response time by controller is 300 seconds.	Frequent	High	Kuala Lumpur ATCC/ LEONARDO Chennai OCC/ RAYTHEON	-	**OPEN**
AIDC-ISSUE-98	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Chennai	2021-05-28	2021-02-14	b. ATM System, or	Chennai transmit second EST or ACP after a complete process cycle of first EST.	Occasionally	High	Kuala Lumpur ATCC/ LEONARDO Chennai OCC/ RAYTHEON	-	**OPEN**
AIDC-ISSUE-99	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Chennai	2021-05-28	2021-04-06	b. ATM System, or	LRM transmitted in response to AOC received from Chennai.	Occasionally	High	Kuala Lumpur ATCC/ LEONARDO Chennai OCC/ RAYTHEON	-	**OPEN**
AIDC-ISSUE-100	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Singapore	2021-05-28	2021-01-11	d. Airspace Design/Procedures, or	Singapore transmit TOC/AOC message although TOC/AOC is not included in operational implementation	Occasionally	Low	Kuala Lumpur ATCC/ LEONARDO Singapore ACC/ THALES	-	**OPEN**
AIDC-ISSUE-101	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Singapore	2021-05-28	2021-04-05	b. ATM System, or	Singapore transmit second EST after a complete process cycle of first EST.	Rare	Medium	Kuala Lumpur ATCC/ LEONARDO Singapore ACC/ THALES	-	**OPEN**
AIDC-ISSUE-102	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Bangkok	2021-05-28	2021-01-14	d. Airspace Design/Procedures, or	Bangkok transmit TOC/AOC message although TOC/AOC is not included in operational implementation.	Occasionally	Low	Kuala Lumpur ATCC/ LEONARDO Bangkok ACC/ THALES	-	**OPEN**
AIDC-ISSUE-103	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Bangkok	2021-05-28	2021-04-06	d. Airspace Design/Procedures, or	Bangkok transmit MAC message although MAC is not included in Operational Implementation.	Rare	Low	Kuala Lumpur ATCC/ LEONARDO Bangkok ACC/ THALES	-	**OPEN**
AIDC-ISSUE-104	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Bangkok	2021-05-28	2021-01-14	b. ATM System, or	Bangkok transmit second EST after a complete process cycle of first EST.	Rare	Medium	Kuala Lumpur ATCC/ LEONARDO Bangkok ACC/ THALES	-	**OPEN**
AIDC-ISSUE-105	Malaysia / Kuala Lumpur ATCC	Kuala Lumpur / Bangkok	2021-05-28	2021-04-10	d. Airspace Design/Procedures, or	Bangkok transmit EST with incorrect COP due to incorrect FPL route was filed by the airline operator (Not following the Flight Planning)	Occasionally	High	Kuala Lumpur ATCC/ LEONARDO Bangkok ACC/ THALES	-	**OPEN**