INTERNATIONAL CIVIL AVIATION ORGANIZATION

ASIA AND PACIFIC OFFICE

REPORT OF

THE SIXTH MEETING OF ATS INTER-FACILITY DATA COMMUNICATION TASK FORCE MEETING (APA TF/6)

Web-conference, 14 – 16 July 2020

The views expressed in this Report should be taken as those of the AIDC Task Force and not of the Organization. This Report will be presented to the APANPIRG/31 for consideration through ACSICG and CNS Sub-group of APANPIRG.

History of the Meeting **Page**

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1. Introduction

1.1 The Sixth meeting of the ATS Inter-facility Data Communication Task Force (APA TF/6) was held from 14 to 16 July 2020. The meeting was an on-line meeting using MS TEAMS.

2. Attendance

2.1 The meeting was attended by 75 participants from 13 States and one International Organization (Bangladesh, Cambodia, China, India, Indonesia, Lao PDR, Malaysia, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, USA and IFATCA). The list of participants is at **Attachment 1**.

3. Opening of the Meeting

3.1 On behalf of Mr. Arun Mishra, Regional Director, ICAO Asia and Pacific Regional Office, Mr. Li Peng welcomed all participants to the meeting. He stated that the on-line meeting is a new form under current pandemic situation. He also observed that number of registered participants is more than double than the traditional F2F meeting of the Task Force.

3.2 The co-chairs of the Task Force, Mr. Kwek Chin Lin, Chief ATC Specialist (Systems Development) of the Civil Aviation Authority of Singapore and Mr. Anurag Sharma, General Manager (CNS) of the Airports Authority of India highlighted the objective of the meeting and emphasized the need for the Task Force members to continue making efforts for the coordinated implementation and to work out solutions to the issues identified by the Task Force.

4. Officers and Secretariat

4.1 Mr. Anurag Sharma and Mr. Kwek Chin Lin acted as Co-chairs for the Task Force. Mr. Li Peng and Mr. Luo Yi, Regional Officers CNS, APAC Office provided Secretariat's support.

5. Organization, Working arrangement, Language and Documentation

5.1 The on-line meeting was conducted around 3 hours a day from 9 a.m. to 12 p.m. Bangkok time each day. The working language was English inclusive of all documentation and this Report. A list of working and information papers is at **Attachment 2.**

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Agenda Item 1: Adoption of Agenda

1.1 The agenda items presented in WP/01 were adopted without change.

Agenda Item 2: Review of outcomes of relevant meetings

Outcome of APANPIRG/30 on AIDC (WP/02)

2.1 The meeting briefly reviewed the outcome of APANPIRG/30 and CNS SG/23 meetings on ATS Inter-facility Data Communication (AIDC) related matters presented by the Secretariat.

2.2 The meeting reviewed the status of ATN/AMHS and AIDC in APAC Region resulted from latest report from relevant meetings. The updated table was provided in **Appendix A** to this Report.

Agenda Item 3: Status of implementation plan focusing those connections identified with priorities

3.1 Under this agenda item, a number of information papers were presented by States updating their AIDC planning and implementation activities as briefly recorded below. The target dates for trials and implementation were consolidated into Appendix A to this Report.

Updates to the AIDC (ATSU) pairs identified by APANPIRG

3.2 The meeting then reviewed the AIDC implementation priorities against the hotspots identified by APANPIRG. The meeting also noted the target date of implementation agreed by the meetings earlier.

AIDC Implementation in Malaysia (IP/02)

3.3 Malaysia updated the meeting on the progress of AIDC implementation plan in Malaysia including those connections between with Kuala Lumpur, Kota Kinabalu and Kuching ACC.

AIDC Implementation in Kuala Lumpur FIR

3.4 Kuala Lumpur ACC and Chennai OCC - The AIDC operational implementation between Kuala Lumpur ACC and Chennai OCC came into effect on the 01 April 2020. The AIDC messages included for exchange are ABI, EST, ACP, LAM, LRM, CDN, REJ and MAC. The AIDC operational trial for TOC and AOC messages between Kuala Lumpur ACC and Chennai OCC is ongoing, starting from 1st July 2020 and ends on 1st August 2020.

3.5 The AIDC operational implementation between Lumpur ACC and Bangkok ACC came into effect on 14th March 2020. The AIDC messages included for exchange are EST, ACP, LAM and LRM. Some statistics of random (one) week in the month of February to May 2020 for ACP success rate were noted by the meeting.

3.6 The summary of implementation status and plan of Kuala Lumpur ACC and Kota Kinabalu/Kuching ACCs with the adjacent FIRs of Indonesia, Philippines and Singapore is shown in the following tables:

Kuala Lumpur ACC and Adjacent ACCs

STATE/ ATC UNIT	**Technical Test**	**Operational Trial**	**Operational Implementation**	**Messages included**	**Remark**
India/ Chennai ACC	31st Jul 2013	**Phase 1** 26th Sep 2016 **Phase 2** 1st July 2020 -1st August 2020	1st Apr 2020	ABI/EST/ LAM/CDN/ ACP/REJ/ LRM/MAC	**Operational Trial Phase 1** ABI/EST/LAM/ACP/ CDN/REJ/LRM/MAC **Phase 2** TOC/AOC
Singapore/ Singapore ACC	13th Apr 2015	4th Sep 2018	1st Nov 2019	EST/LAM/ ACP/LRM	**Technical Test Successful** ABI/CDN/REJ
Thailand/ Bangkok ACC	3rd Nov 2016	**1st Trial** 29th- 31st Aug 2019 **2nd Trial** 4th Feb 2020	14th Mar 2020	EST/LAM/ ACP/LRM	**Technical Test i. Successful** CDN/TOC/ AOC **ii. Unsuccessful** ABI **Operational Trial** 1st trial was discontinued due to operational requirement.
Vietnam/ Ho Chi Minh ACC	4Q2019	2Q2020	1Q2021	Nil	TBD
Indonesia/ Jakarta ACC	4Q2020	TBD	TBD	Nil	Planned

Kota Kinabalu FIR and Adjacent FIR

STATE/ ATC UNIT	**Technical Test**	**Operational Trial**	**Operational Implementation**	**Messages included**
Kota Kinabalu				
Indonesia/ Ujung Pandang ACC	7th-8th Aug 2019	4Q2020	1Q2021	EST/LAM/ ACP/LRM
	23rd Oct 2019			
	11th Mar 2019			
Indonesia/ Jakarta ACC	3Q2021	3Q2021	3Q2021	Nil
Singapore/ Singapore ACC	18th-19th Nov 2019	Oct 2020	1Q2021	EST/LAM/ ACP/LRM
16th Jan 2020				
Philippine/ Manila ACC	21st-22nd May 2019 21st-22nd Oct 2019	4Q2020	1Q2021	EST/LAM/ ACP/LRM
Kuching				
Singapore/ Singapore ACC	20th-21st Nov 2019	20th Jul – 18th Oct 2020	4Q2020	EST/LAM/ ACP/LRM

AIDC Implementation in Singapore (IP/03)

3.7 Singapore informed the meeting of the progress of the AIDC implementation in Singapore. With the successful implementation of AIDC with Ho Chi Minh ACC (Viet Nam) in July 2014, Singapore sought to extend the AIDC implementation with the rest of the adjacent ACCs to improve operational efficiency. After conducting numerous technical tests and technical trials with Malaysia and Philippines, operationalization of AIDC with Kuala Lumpur and Manila had commenced from 1 November 2019.

3.8 Technical tests between Kuala Lumpur ACC and Singapore ACC were conducted from December 2019 to February 2020 for ABI and CDN messages. Technical tests with Kota Kinabalu ATCC and Kuching ATCC were conducted from November 2019 to January 2020. The following messages were tested: EST, ACP, LAM, LRM, ABI and TOC. Singapore ACC planned to commence the operational trials with Kuching ATCC in July 2020.

3.9 Singapore had implemented AIDC with Manila ACC since 1 November 2019 after successfully completed operational trials. The following AIDC messages were implemented during first phase: EST, ACP, AOC, TOC, LAM and LRM.

3.10 In summary, the various activities that has been conducted or planned for AIDC implementation with adjacent FIRs are summarized in the table below:

State/ATC unit	Technical test commencement	Implementation date	AIDC messages	Remarks
Vietnam/Ho Chi Minh ACC	December 2013	24th July 2014	Phase 1 (24th July 2014): EST, ACP, LAM, LRM Phase 2 (TBA): ABI, TOC, AOC	Phase 2 operational trials deferred until further notice.
Malaysia/ Kuala Lumpur, Kota Kinabalu and Kuching ATCCs	December 2014	Kuala Lumpur ATCC: 1st November 2019 Kuching ATCC: 4Q 2020 Kota Kinabalu ATCC: 2Q 2021	EST, ACP, LAM, LRM	Operational trials between Kuching ATCC and Singapore ACC to commence on 20th July 2020. Operational trials between Kota Kinabalu ATCC and Singapore is planned for 4Q 2020/.
Philippines/ Manila ACC	December 2014	1st November 2019	EST, ACP, LAM, LRM, TOC, AOC	Phase 2 operational trials discussions to be initiated in 3Q2020.
Indonesia/Jakarta ATSC	TBA	TBA	ABI, EST, ACP, LAM, LRM, TOC, AOC	TBA

3.11 A number of issues observed recently were attributed to network link issues. The disruption of these links will result in unsuccessful AIDC message transmission/exchanges due to message non-reception/timeouts. The 2 main reasons for most of the unsuccessful EST message exchanges remains the same: flight plan has been manually coordinated before EST message is received and missing FPL information in the receiving ACC ATM system.

AIDC Implementation in India (IP/04)

3.12 India provided updates on their AIDC implementation activities and operational issues encountered during implementation.

3.13 India initiated AIDC operational trials after commissioning of automation systems at major ATS units in India. AIDC has been operationalized between some of the ATSUs and plans are underway to operationalize AIDC between other major ATSUs in a phased manner. India initiated AIDC trials with adjacent ATS Units of neighboring states in the sub-region. India has four Flight Information Regions (FIRs), namely Chennai FIR, Mumbai FIR, Delhi FIR and Kolkata FIR and there are 13 adjacent International FIRs i.e. Lahore, Karachi, Muscat, Sanaa, Mogadishu, Seychelles, Mauritius, Maldives, Colombo, Jakarta, Kuala Lumpur, Yangon, Dhaka and Kathmandu.

3.14 India is currently using APAC AIDC ICD version 3 in all the automation systems currently installed at various ATS units. Within India, AIDC operations between Chennai and Mumbai have been put into regular operations.

Implementation with Neighboring States

3.15 **Chennai & Kuala Lumpur (Malaysia)** – ABI, EST successful. CDN is done with voice confirmation. TOC/AOC is on trial for one month since 1 July 2020 which will be implemented later. LOA signed. Additional LOA signed with Maldives and LOA progressed with Sri Lanka. Some issues are encountered with Myanmar and Pakistan which are being addressed.

3.16 India confirmed its readiness to carry out technical tests and trials followed by operational trials for AIDC implementation within the APAC region between Kolkata-Dhaka, Mumbai-Karachi, Delhi – Karachi, Delhi – Lahore, Chennai-Colombo, Chennai-Jakarta and Varanasi-Kathmandu subject to readiness from the concerned neighboring States. Since Pakistan during the meeting discussion expressed its readiness for conducting trials between Karachi-Ahmedabad, Karachi-Delhi and Lahore-Delhi pairs of ATSU citing availability of ATM Automation Systems from the same vendor, it is expected that both India and Pakistan submit mutually agreed timelines for AIDC implementation between these pairs of ATSUs. While discussion focused on further expedition of AIDC implementation in the Bay of Bengal sub-region, India informed the meeting that the western frontier with MID-AFI region still remains deprived of the benefits of AIDC. This common FIR is prone to LHDs, especially category E which can easily be checked by adopting AIDC. With the experience gained over the past years, India is willing to take lead in implementing AIDC across all adjacent FIRs. In this context, India requested if the proposal could be conveyed to the State concerned through ICAO APAC and MID Offices for re-starting the AIDC testing and trials between Mumbai and Muscat aiming to mitigate the LHDs between adjacent FIRs through implementation of AIDC.

3.17 The AFTN (AMSS) latency was one of the issues while implementing AIDC. AFTN (AMSS) system upgradation to IP based AMSS is underway at various stations which has shown promising results to address the latency issues for exchange AIDC data. After implementation of IP based AMSS at Delhi, Ahmedabad, Nagpur, Mangalore, Trivandrum and Varanasi, AFTN latency issues have drastically reduced – as evidenced during AIDC trials.

3.18 India is engaged towards entering into contract with M/s PCCW (CRV Service provider in APAC region) for CRV in Q3 2020 and Service readiness by Q4 2020 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 neighboring countries.

Progress of AIDC Implementation in China (IP/05)

3.19 China provided information on their AIDC implementation progress and their future plan with adjacent ATSUs and also shared with meeting the issues encountered during the implementation.

3.20 China had implemented AIDC operation with Incheon ACC and Khabarovsk ACC (Russia) respectively, and is conducting AIDC technical tests with Ulaanbaatar ACC, Yangon ACC, Vientiane ACC, and Hanoi ACC.

Performance of implemented AIDC circuits

3.21 There are a number of AIDC connections that have been implemented:

- The AIDC over AFTN between Sanya ACC and Hong Kong ACC was successfully implemented in Feb 2007 with AIDC messages exchanged: EST, ACP, TOC, AOC, LRM, and LAM;

- The AIDC over dedicated line between Shanghai ACC and Taipei ACC was implemented in 2013. The AIDC messages exchanged include: EST, ACP, TOC, AOC, LRM, and LAM;
- The AIDC over by dedicated line between Guangzhou ACC and Taipei ACC was also implemented in 2013 with messages exchanged: EST, ACP, TOC, AOC, LRM, and LAM;

- AIDC was implemented between Dalian ACC and Incheon ACC in October 2016 with messages being exchanged: ABI, EST, ACP, TOC, AOC, LRM, and LA

- AIDC between Guangzhou ACC and Hong Kong ACC was implemented in May 2018;

- Automatic handover based on OLDI protocol between Shenyang ACC and Khabarovsk ACC was implemented in October 2019 over dedicated line.

Planned implementations with Mongolia, Myanmar and Laos PDR

3.22 There are three planned AIDC connections including one between Beijing ACC and Ulaanbaatar ACC; one between Kunming ACC and Yangon ACC and one between Kunming ACC and Vientiane ACC.
In April 2019, the Beijing ACC ATM system (Eurocat-X) upgraded to version 9 with multiple features enhanced including the TOC message processing. China plans to continue AIDC operational trial with Ulaanbaatar ACC in 4Q2020.

- China plans to conduct another AIDC test between Kunming ACC and Yangon ACC after the ATS surveillance coverage at the coordination point is improved by Myanmar;

- China will continue working with Lao PDR on a solution to mitigating the latency issue before conducting further AIDC trial;

- China expects to conduct another AIDC test between Sanya ACC and Hanoi ACC in Q4th 2020 after AIDC ICD Version 3 capable put into operation at Sanya ATM system; and

- According to an agreement between China and Mongolia reached in September 2019. Preparatory work for AIDC connection between Lanzhou ACC and Ulaanbaatar ACC is expected to take place in Q32020.

Summary of AIDC planning and implementation by China is shown in a table below:

Location of AIDC end system	Correspondent location	Technical Test commencement	Implementation date	AIDC messages used	Media used	Remarks
Sanya	Hong Kong	2007	2007	EST, ACP, TOC, AOC, LRM, LAM	AFTN	
Shanghai	Taipei	2013	2013	EST, ACP, TOC, AOC, LRM, LAM	Dedicated Line	
Guangzhou	Taipei	2013	2013	EST, ACP, TOC, AOC, LRM, LAM	Dedicated Line	
Dalian	Incheon	2014	Oct.2016	ABI, EST, ACP, TOC, AOC, LRM, LAM	Dedicated Line	
Guangzhou	Hong Kong	Jun 2017	May.2018	EST, ACP, TOC, AOC, LRM, LAM	AFTN	
Shenyang	Khabarovsk	May 2019	Oct.2019	ABI, ACT, PAC, REV, MAC, LAM, HOP, ACP	Dedicated Line	
Beijing	Ulaanbaatar	Nov.2016	TBD	EST, ACP, TOC, AOC, LRM, LAM	AFTN	Operational trial is expected to be completed in Q4 2020
Kunming	Yangon	Mar.2017	TBD	TBD	AFTN	
Kunming	Vientiane	Dec.2018	TBD	TBD	AFTN	
Sanya	Hanoi	2019	TBD	TBD	AFTN	Technical test expects in Q4 2020

Some Implementation Issues experienced

3.23 15-20 seconds of exchanged AIDC message could be generally achieved with adjacent ATSUs over AFTN while the ATC controller's preference is less than 5 seconds. With the increasing number of traffic, the latency would be much longer. A number of failures of the AIDC process would grow and the benefits of AIDC would be compromised. Use of dedicated lines can improve the latency issue but the structure of the network would become more complicated. Optimizing the existing AFTN circuit and upgrading exchanges of AFTN messages over CRV, the latency could be improved.

3.24 Some issues were observed regarding the Optional Data Field missing in AIDC message headers, especially for ODF 2 and 3. According to the AIDC ICD Ver. 3, ODF 2 and 3 are defined to carry message/data unit identification and message/data unit reference information, respectively which should be used to improve the accuracy of AIDC message processing.

3.25 For AIDC application, normally the Transfer of Control Point (TCP) or the common FIR boundary shall be determined. For domestic use, China has formulated the standard for FDR data exchange to deal with this. Testing for verification between Kunming ACC and Xishuangbanna/Dali Airport were carried out. Additional function for allocation of Calculate Take-Off Time (CTOT) and SSR code is also specified in the FDR standard which could further reduce air/ground voice communication time.

3.26 The AIDC handover test between China and Laos started in December 2018. While Kunming uses NUMEN-2000 test platform, Vientiane uses TopSky backup system. The test was carried out in a simple mode by using AFTN link.

3.27 ABI, EST and ACP messages are sent automatically in NUMEN-2000 system manufactured by LES company. TOC and AOC messages are sent manually. ABI message is sent 15 minutes prior SAGAG, and EST is sent 80 km or 10 minutes before SAGAG. For outbound flights, Laos reported they couldn't deal with the metric altitude in ABI and EST messages. Later, LES company upgraded the system. By configuring the programs, the altitudes sent to Laos are imperial and other domestic areas are metric. Whereas, the altitudes displayed on controllers' positions are metric, which is convenient for the controllers. For outbound flights, Laos replied LRM after receiving EST sent by Kunming. Also, FPL NOT PREAC was displayed in LRM. At present, there is no ABI in the AIDC handover between Kunming and adjacent control areas, because the route in ABI could be modified wrongly by the opposite end system. However, due to the limitation from TopSky, ABI is indispensable to activate the flight plan. After that, LES company upgraded related programs and added routes in ABI.

3.28 Latency through AFTN link up to 320 seconds was one of the concerned issues. The average during the test was 68 seconds. Long latency would have caused handover failure. It was recommended to make joint efforts by China and Laos PDR to work out a solution to the problem of transmission latency.

Updates on AIDC Implementation Status in Indonesia (IP/08)

3.29 Indonesia provided updates on their AIDC implementation status of Ujung Pandang ACC which is bordered with 6 adjacent ACCs including: Kota Kinabalu ACC, Manila ACC, Oakland ACC, Port Moresby ACC, Brisbane ACC and Jakarta ACC. The status of AIDC implementation in Ujung Pandang ACC with those ACCs are:

- Implemented with Brisbane ACC implemented successfully since July 2017 with message set: ABI, EST, ACP, TOC, and AOC;

- Operational Trial with Manila ACC has been conducted since 10 October 2019 with the EST, ACP, TOC and AOC messages. Target date for implementation is in 3Q-2020;

- AIDC testing with Kota Kinabalu ACC with selected messages focusing EST, ACP and PAC was conducted on 11 March 2020. Target date for implementation is 4Q2020;

- Indonesia and USA coordinated to update the ATS LOCA to include AIDC procedure implementation between Ujung Pandang ACC and Oakland ARTCC with target date of implementation in 4Q2020; and

- The initial AIDC test between Ujung Pandang ACC and Port Moresby ACC was conducted on 7th July 2020 with following messages: ABI, EST, ACP, TOC, and AOC. Target date for implementation will be determined through agreement based on the testing result.

AIDC Implementation in Thailand (IP/09)

3.30 Thailand provided an updates on AIDC connection with adjacent States. Thailand has recently commissioned the new Air Traffic Management (ATM) system, namely Thailand Modernization CNS/ATM System (TMCS) since 12th February 2020. The AIDC activities have been carried out with this newly implemented ATM system.

AIDC Implementation with Malaysia

3.31 After commissioning the new ATM system (TMCS), Thailand implemented AIDC connection with Kuala Lumpur FIR (Malaysia) on 4th March 2020. The following table depicts AIDC statistical information in June 2020 that describes the most recent situation regarding Thailand-Malaysia AIDC coordination.

Flights	Average Flights / Day	Total Number of Flights (1st-30th June 2020)	EST/ACP Success Flights (1st-30th June 2020)	Success Rate
Thailand to Malaysia	13	387	341	88.11%
Malaysia to Thailand	13	370	327	88.38%
Total	26	757	668	88.24%

AIDC Implementation with Lao PDR

3.32 With a certain level of satisfactory on AIDC operational trial, Thailand and Lao PDR are agreed to implement AIDC connection operationally. The effective date is starting from 14th July 2020. Air traffic crossing Thailand-Lao PDR boundary is the first largest number of international flights in Thailand. The most recent information regarding Thailand-Lao PDR AIDC communication in June 2020 is shown in table below.

Flights	Average Flights / Day	Total Number of Flights (1st-30th June 2020)	EST/ACP Success Flights (1st-30th June 2020)	Success Rate
Thailand to Lao PDR	41	1,212	1,120	92.41%
Lao PDR to Thailand	37	1,105	1,045	94.57%
Total	78	2,317	2,165	93.44%

Thailand AIDC Implementation Status

3.33 AIDC operational trials with Phnom Penh FIR (Cambodia) and Yangon FIR (Myanmar) are ongoing processes. The AIDC operational trial is 24-hour flight coordination trial using AIDC with real operational ATM system. From this period until the target implementation date, the issues found during the trials shall be collected and exchanged between parties for further improvement in AIDC implementation. Current Thailand AIDC implementation status with all adjacent ATSU is summarized in the following table.

Thailand	Adjacent ATSU	AIDC Message	Implementation Date
Bangkok ACC	Kuala Lumpur ATCC (Malaysia)	EST, ACP, LAM, LRM	14th March 2020 (Implemented)
Bangkok ACC	Vientiane ACC (Lao PDR)	ABI, EST, ACP, TOC, AOC, LAM, LRM	14th July 2020 (Implemented)
Bangkok ACC	Phnom Penh ACC (Cambodia)	ABI, EST, ACP, TOC, AOC, LAM, LRM	3Q 2020
Bangkok ACC	Yangon ACC (Myanmar)	ABI, EST, ACP, LAM, LRM	4Q 2020

The meeting expressed appreciation to Thailand for two AIDC connections implemented recently between Bangkok/Kuala Lumpur and Bangkok/Vientiane, in particular for the one implemented on the same day of APA TF/6 meeting i.e. on 14 July 2020.

AIDC Operational Trial in Manila FIR (IP/10)

3.34 The Philippines updated the meeting on their AIDC trial implementation as indicated in the following table:

ADJACENT CENTER	DATE/S of AIDC Technical Tests / AIDC Operational Trial	AIDC MESSAGES EXCHANGED	RESULT OF TEST/TRIAL	IMPLEMENTATION PLAN
Singapore	January 9, 2019	ABI, EST, ACP, TOC, AOC	Successful	Implemented Nov. 1, 2019
	February 18, 2019 ongoing	EST, ACP, TOC, AOC	Successful	
Hong Kong	March 7, 2019	ABI, CPL, EST, ACP, TOC, AOC	Successful	Implemented May 23, 2019
	March 28, 2019 ongoing	EST, ACP,	Successful	
Taipei	April 10, 2019 June 18, 2019	ABI, EST, ACP, TOC, AOC	Successful.	implemented 5 December 2019
	December 5,2019	EST, ACP, TOC, AOC	Successful	
Ujung Pandang	May 28, 2019	ABI, EST, ACP, TOC, AOC	Successful.	4Q 2019
	October 10, 2019-(April 23,2020) on-going	EST, ACP, TOC, AOC	Operational trial	
Ho Chi Minh	October 30, 2019 ABI, EST, ACP, TOC, AOC Successful			4Q2020
Kota Kinabalu	May 21-22, 2019 October 21-22, 2019	ABI, EST, ACP, TOC, AOC, MAC, PAC	unsuccessful	4Q2020

3.35 AIDC connection with Taipei has been fully implemented since December 6, 2019. On-going operational trial with Ujung Pandang is conducted while waiting for the LOA being signed for full implementation.

3.36 Manila ACC already conducted AIDC tests with Kota Kinabalu and Ho Chi Minh. AIDC trial operations with Ho Chi Minh ACC will commence in 4Q 2020. Indonesia confirmed that the LOA on AIDC between Kota Kinabalu and Manila had been signed and the target date for implementation is September 2020. The meeting congratulated the Philippines for successfully completing the implementation of AIDC connections with three States.

Additional information on AIDC implementation provided by States verbally

3.37 Bangladesh informed the meeting that the AIDC project is delayed and now is under internal approval processes. Bangladesh will coordinate for necessary trials with States concerned after the approval by CAA. Bangladesh which is likely in 2023.

3.38 Sri Lanka informed the meeting that the testing with Maldives and Chennai, India was suspended as impacted by the COVID pandemic. Sri Lanka will try to resume the trials soon with India and Maldives and will also initiate discussions with Jakarta, Indonesia for trials in 2021.

3.39 Pakistan inform the meeting of their implementation status. The AIDC ICD used is Pakistan is the APAC ICD Version 2. There is a successful domestic AIDC implementation between Lahore and Karachi. Pakistan is also keen to conduct testing with India (Mumbai and Delhi) once ready.

Agenda Item 4: Review implementation issues reported and discuss recommended solutions

AIDC Implementation Issues Report (WP/05)

4.1 Under this Agenda, the meeting reviewed and discussed the consolidated implementation issues **(Appendix B** to this Report**)** collected and presented by Indonesia with supports by India and Singapore through WP/05. The identified issues are classified into three categories i.e. a) pertaining to Communication Infrastructure and Interfacing euipage; b) pertaining to ATM system parameters and Application Software; and c) pertaining to Design Procedures, SOP, Operator's Training. The AIDC reported issues till date were presented for review and discussion by the meeting. Totally 89 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:

Fault Categories	**APA TF/6 (2020)**		
	Issues Reported	**Closed**	**Open**
a. Communication Link	9	3	6
b. ATM System	50	20	30
c. AIDC Message	17	15	2
d. Airspace Design/Procedures	8	4	4
e. Other	5	2	3
Total	**89**	44	45

AIDC Issues Summary and Solutions

4.2 Issues pertaining to three different categories and some recommended solutions for reference are explained and analyzed in the paper. Comments from the input from reported States/Administrations were also elaborated in the paper.

4.3 Indonesia proposed that the focal points for AIDC implementation should contact each other to work out jointly for the outstanding issues identified in the table. States/Administrations were urged to the share the lessons learnt by providing more identified issues for consolidation into the implementation issues report.

4.4 The Secretariat was requested to distribute the issue form in excel format to all designated AIDC focal points for sharing and seeking updates from States/Administrations.

Agenda Item 5: Review Terms of Reference and the achievments of the Task Force and discuss a dissolved date of the Task Force per directive given by CNS SG/23 (para. 3.37 of the meeting report refers)

5.1 Under this agenda, the meeting further reviewed the TOR of the Task Force and recalled the discussions on AIDC related matters by the Twenty-third meeting of CNS SG.

5.2 The Terms of Reference (TOR) of the AIDC Implementation Task Force was adopted by APANPIRG at its Twenty Fifth meeting through Decision 25/37. The TOR was reviewed by the Fifth meeting of the Task Force in 2019. The meeting did not identify the need to amend the TOR of the Task Force.

5.3 In this connection, the meeting noted that AIDC implementation in South China Sea sub-region was satisfactory while further efforts by States in the Bay of Bengal sub-region are required. The meeting noted the following achievements made since the APA TF/5 meeting held in April 2019:

- Automatic handling over based on OLDI ICD between Shenyang ACC and Khabarovsk ACC implemented in October 2019 over a dedicated line;

- AIDC operational implementation between Kuala Lumpur ACC and Chennai OCC came into effect on 01 April 2020;

- Operational AIDC between Singapore ACC and Kuala Lumpur ATCC with limited messages set was implemented on 01 November 2019;

- Operational AIDC between Bangkok ACC and Kuala Lumpur ATCC with limited messages set was implemented on 14 March 2020;

- Operational AIDC between Bangkok ACC and Vientiane ACC with 5 messages set was implemented on 14 July 2020;

- AIDC service between Manila ACC and Hong Kong ACC implemented on 23 May 2019;

- AIDC service between Manila ACC and Singapore ACC implemented on 1 Nov.2019; and

- AIDC service between Manila ACC and Taipei ACC implemented on 5 December 2019.

5.4 There are also a number of AIDC connections planned for implementations in 4Q2020 or early 2021. Noting the achievements made in completion of tasks specified in the TOR and the discussions at CNS SG/23 meeting, the APA TF/6 meeting considered it necessary to continue the work of the Task Force for a short period of time. The meeting agreed to have another meeting in first half of 2021 to review the implementation status of those AIDC connections planned for completion by the end of 2020 and/or early 2021 before dissolving the AIDC Task Force.

5.5 The meeting encouraged States/Administrations concerned to continue work bilaterally to expedite AIDC implementation.

Agenda Item 6: Review the outstanding Action Items of APA Task Force and make recommendations for a way forward

6.1 The meeting reviewed the list task/action items which is provided in **Appendix C** to this Report. The meeting considered that the outstanding task/action items would be transferred to another contributory body of APANPIRG under CNS SG once the Task Force is disbanded.

6.2 The graphical map for quick and easy understanding of the regional AIDC implementation status updated by Singapore based on the information available to the meeting is provided in **Appendix D** to this Report.

Agenda Item 7: And any other business

Electronic Handover Technology based on MH/T4029.3 (IP/07)

7.1 China introduced a solution for air traffic transfer between high and low sectors or between an ATC and regional airports as the time and distance required for handover is quite short. An example introduced is about electronic handling over between Kunming Air Traffic Control and regional airports. The handling over procedure was developed in accordance with a CAAC standard/recommendation: *Civil Aviation Air Traffic Control Automation System — Part 3: Flight Data Exchange*, which is also called MH/T 4029.3. This recommendation defines Category C data which is applicable for flight electronic handover between different control units, especially for ATC automation systems in two or more regions where the AIDC protocol is not applicable. Such procedure on the electronic handover between ATC and regional airports was also initially presented to the SURICG/4 meeting held in April 2019. Some benefits and operating efficiency improvement resulted from the procedure were highlighted in the paper. The meeting noted that the procedure is driven by the requirement. States having similar requirements may wish to contact China for detailed information on its application.

Future meetings

7.2 The meeting preferred to have another meeting before closure to progress those implementation plans being carried out between States. Considering the impact of the pandemic, the next meeting of the Task Force is not possible to schedule with a fixed date and is likely to be held in early 2021. The Secretariat will inform member States of the Task Force about exact dates of the meeting at due course.

7.3 The meeting appreciated actions taken by Indonesia supported by India and Singapore for updating table of reported issues.

7.4 In closing the meeting, the Chairmen thanked participants for their active participation.

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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. AMHS has been migrated to CRV. Connection with Singapore using AMHS was implemented October 2016; Another AMHS connections pending CRV (target date by March 2020) including both connection with New Zealand and USA. AMHS connection with Indonesia pending on CRV implementation AMHS connection with South Africa has been established Plan to upgrade AMHS support IWXXM traffic from Nov. 2020.	COMSOFT	AFTN/AMHS based AIDC Implemented between Brisbane and Melbourne, Oakland, Nadi and Auckland; Implemented between Melbourne and Johannesburg; AIDC is also in use between Melbourne and Mauritius; Operational trial between Brisbane and Ujung Pandang since May 2013. Implementation in July 2017. LOA needs to be updated.		

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
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 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 at final stage.	AEROTHAI'S AMHS System	Currently not applicable. If required in the future, will be decided after CRV implementation (scheduled for mid-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
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. Ready for testing with neighbors ATS Facilities starting from 2017 and target date of implementation with Bangkok in 4Q2019	THALES which supports AIDC ICD Version 1.	
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 is completed POT, after sign the TMC circuit and was put into operation in Q12020	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 in to operational use since 8 Feb 2007. AIDC between Dalian and Incheon implemented in Nov.	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;	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
	AMHS/ATN technical tests with Macau 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 2020 Connection tests with Nepal is TBD. AMHS testing with Japan in 2020. AMHS testing with Russia in 2020.		2016; AIDC between Shanghai/Guangzhou and Tapei put into operational use since 2013. 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. For: Beijing/Ulaanbaatar, Further testing is planned in 2020. Kunming/Yangon under test and progress since May 2017 Kunming/Vientiane under test and progress since Dec. 2018. Sanya/Hanoi under test trial since 2019.	With Thailand is completed POT, after sign the TMC circuit and was put into operation in Q12020 AMHS/ATN technical tests with Macau 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 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
				Connection tests with Nepal is TBD. AMHS testing with Japan in 2020. AMHS testing with Russia in 2020	
HONG KONG, CHINA	Manila / Philippines CRV/AMHS circuit was put into operation in May 2019. Beijing / China ATN/AMHS circuit was put into operation in 2018. Plan to migrate to CRV in 2020. Bangkok / Thailand ATN/AMHS circuit was put into operation use in 2014. Plan to migrate to CRV in Q32020. Fukuoka / Japan Currently on AFTN. Plan to cut over to CRV/AMHS in Q1 2020. HoChiMinh / Vietnam Currently on AFTN. Plan to test ATN/AMHS in 2020.	COMSOFT	AFTN-based AIDC with Sanya put into operational use in Feb 2007. AIDC technical trial with Taibei conducted in 2010 and completed in 2012 and put into operational use in Nov. 2012 AIDC technical and interoperability tests with Guangzhou were conducted successfully in April and June 2017 respectively and put into operational use in May 2018. AIDC technical and interoperability tests with Manila were conducted	Raytheon ATM system Support AIDC ICD Version 3 commissioned in November 2016.	Already support exchange of IWXXM messages based on FTBP.

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
	Taibei Currently on AFTN. Plan to test CRV/AMHS in 2020		successfully in May 2018 with no observations on exchanging core set messages (EST, ACP, TOC, AOC, LAM, LRM). AIDC operational trial with Manila was commenced in March 2019. .		
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. ATN/AMHS implementation with mainland China planned for 2019.	COMSOFT	(Not applicable for using AIDC, looking into the possible application (some way) between TWR and ACC/APP).		
COOK ISLANDS					
DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA	The ATN BIS Router and AMHS planned for in 2011.		With neighboring ACCs to be implemented		

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
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	
FRANCE *(French Polynesia Tahiti)*	Planned for implementation of AMHS in 2020. 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

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
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; Planned for Nairobi in Q1 2020 and Muscat for 2020.	COMSOFT	-15-May-2017, AIDC implemented between Chennai and Kuala Lumpur with ABI and EST messages. CDN is done with voice confirmation. TOC/AOC to be implemented; - Chennai-Colombo under test trial; - Chennai-Male under test trial; - Chennai-Yangon under test trial; - Mumbai-Male test trials completed; LOA signed. - Trivandrum-Male under test trial. LOA signed. - Mumbai-Muscat under test trial; -Ahmedabad-Karachi under test trial. LOA signed.	1) Raytheon at Mumbai and Chennai. 2) Selex at Hyderabad and Bengaluru. 3) INDRA at 40 locations	1) Major Indian airports and ATC centers have integrated ATS Automation Systems having AIDC capability. Successful AIDC trials have been carried out amongst major ATSUs within India. 2) AIDC implemented between Chennai and Mumbai. 3) AMHS implemented and working between A. BBIS: Mumbai-Singapore, Bangkok B: BIS: Mumbai, Kathmandu, Dhaka, Karachi, Colombo & Paro
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:	Thales TopSky in Makassar able to support ICD version 3 since December 2015.	For CRV, target of contract in 4Q2020 and implementation in 1Q2021.

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
			1) Ujung Pandang ACC –Brisbane ACC: Implemented since July 2017. 2) Ujung Pandang ACC – Manila ACC: - Operational trial since October 2019; - Target date for implementation in 3Q2020. 3) Ujung Pandang ACC – Kota Kinabalu ACC: - Successfully tested and target date for operational trial in 4Q2020; - Target date for implementation 1Q2021. 4) Ujung Pandang ACC – Oakland ARTCC: - Successfully tested and target date for implementation in 4Q2020. 5) Ujung Pandang ACC – Port Moresby ACC: - Successfully tested on 7 July 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
			- Target date for operational trial in 3Q2020. - Target date for implementation 1Q2021. 6) Ujung Pandang ACC – Jakarta ACC (4Q2020); AIDC implementation in Jakarta ACC will be carried out with the following priorities: 1) Jakarta – Ujung Pandang (4Q2020); 2) Jakarta – Chennai (3Q2021); 3) Jakarta – Melbourne (4Q2021); 4) Jakarta – Colombo (2Q2022); 5) Jakarta – Singapore (3Q2022); 6) Jakarta - Kuala Lumpur (4Q2022); 7) Jakarta – Kota Kinabalu (4Q2022).		Priority is in accordance with Hot Spot identified by RASMAG/23

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
JAPAN	ATN BBIS router and AMHS installed at 2000. Connection tests with USA 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. Upgrading connection with Hong Kong and Singapore using VPN will be implemented in 2020 after implementation of CRV. Coordinating for all other circuits upgrading.	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. 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.		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
KIRIBATI	Connection with Nadi using UA/AMHS implemented in 2015.				
LAO PDR	ATN BIS Router and AMHS completed, planned for operation with Bangkok since 4Q 2016.	THALES	AIDC testing with Bangkok in 2017 and target for implementation in 4Q2019. Testing with Hanoi on-going since 2017; with Cambodia operational test again in June 2018, and implementation 2Q 2019. Testing with Kunming and Yangon ongoing.	THALES which is able to support ICD Version 2.	
MALAYSIA	ATN BIS Router completed 2007. AMHS implementation planned for Q42017; Malaysia – Singapore for AMHS implementation in March 2020. Malaysia – Thailand for AMHS implementation in 2019.	FREQUENTIS	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	LEONARDO 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
			2019 (EST/ACP/LAM/ LRM). The operational implementation commenced on 14th March 2020 (EST/ ACP/LAM/LRM). AIDC technical test between Kuala Lumpur ACC and Chennai OCC conducted since February 2013. The operational trial implemented in phases from September 2016 (ABI/EST/MAC/LAM/L RM/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		

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
			2020 (ABI/EST/ ACP/LAM/LRM/CDN/REJ/MAC). The operational trial for TOC/AOC started on 1st July until 1st August 2020. 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). AIDC technical test between Kuala Lumpur ACC and Ho Chi Minh ACC To Be Discussed (TBD).		

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
			AIDC technical test between Kuala Lumpur ACC and Jakarta ACC TBD. AIDC technical test between Kota Kinabalu ACC and Manila ACC started on May 2019 (EST/ACP/ LAM/LRM). The operational trial plan to be started in 4Q2020 (EST/ACP/ LAM/LRM). The operational implementation plan to be started in 1Q2021 (EST/ACP/LAM/ LRM). AIDC technical test between Kota Kinabalu ACC and Ujung Pandang ACC started on August 2019 (EST/ACP/LAM/ LRM). The operational trial plan to be started in 4Q2020 (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
			The operational implementation plan to be started in 1Q2021 (EST/ACP/LAM/ LRM). AIDC technical test between Kota Kinabalu ACC with Jakarta ACC TBD. AIDC technical test between Kota Kinabalu ACC and Singapore ACC started on November 2019 (EST/ACP/LAM/ LRM). The operational trial to be commenced on October 2020 (EST/ ACP/LAM/LRM). The operational implementation to be started in 1Q2021 (EST/ACP/LAM/ LRM). AIDC technical test between Kuching 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
			and Singapore ACC started on November 2019 (EST/ACP/LAM/ LRM). The operational trial to be commenced on 20th July until 18th October 2020 (EST/ACP/LAM/ LRM). The operational implementation to be started in 4Q2020 (EST/ACP/LAM/ LRM). 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.		Connection established with all the adjacent ATSUs. Interoperability tests successfully completed in 2017. LOA signed for operational trials between Mumbai, Chennai, and	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
	Also will look for the possibility of implementing the CRV network to use with AMHS and AIDC during the same phase.		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 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					

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
MICRONESIA (EDERATED STATES OF)					
Chuuk					
Kosrae					
Pohnpei					
Yap					
MONGOLIA	AMHS/AFTN gateway implemented 2012. ATNBIS router implemented in 2014. ATN and AMHS IOT with China was completed in May 2018. Plan for commissioning after POT completion in 2019.	COMSOFT	ATM automation system supports both AIDC and OLDI. 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.	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
MYANMAR	AMHS including ATFN/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 1Q2020; AIDC testing with Kunming Chennai, Kolkata and Vientiane conducted in 2020.	THALES Automation system (Topsky ATC supports APAC AIDC ICD Ver. 2.	
NAURU					
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			

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
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 since 2015. Planning for AMHS connection with Beijing and Kuwait after upgrading existing facilities between the Countries. Target dates for implementation TBC.	COMSOFT	Implemented between Karachi and Lahore ACCs Further testing to be conducted between Delhi/Karachi & Delhi/Lahore after system upgradation at Indian end; Mumbai/Karachi &AHM/Karachi on trial operation. For testing with Muscat planned for 4Q2019. Coordination for testing with Tehran is in progress.	ATM system from Intra AIRCON 2100	Existing Radar system being upgraded.
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.	New ATM System from Thales (TopSky-ATC) implemented and operational now supports AIDC V3.	

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
			AIDC implementation with Indonesia to happen after CRV implementation this year.		
PHILIPPINES	New ATN/AMHS was installed at the New CNS/ATM Center in Manila. Site Acceptance was successfully done on October 2015. The new AMHS commissioned and operational in March 2018. The international connection still using AFTN except Hong Kong. The AMHS Implemented over CRV with Hong Kong 1Q2019 and with Singapore is planned over CRV by end of 2Q2020. AMHS implementation with Oakland USA via CRV is planned for 3Q2020.	COMSOFT	On-going test with Singapore, Ujung Pandang and Taipei ACCs; Planned technical trial over new ATM system with other ACCs from 4Q2017 to 3Q2019: Coordination is underway for using AIDC function of the new ATM system with adjacent ACCs. Planned implementation: 2Q2019 – Singapore ACC; 4Q2019 – Ujung Pandang ACC; 3Q2019 – Taipei ACC; 2Q2019- Hong Kong ACC;	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
REPUBLIC OF KOREA	ATN/AMHS circuit with China put into operational use in June 2011. AMHS implementation with China over CRV in 2Q2020. AMHS implementation with Japan over CRV in 4Q2020.	SAMSUNG	AIDC implemented between ACC and Fukuoka ATMC in 2010 AIDC between Incheon and Dalian implemented in Nov. 2016.	Rockheed Martin System	
SINGAPORE	AMHS implemented. ATN/AMHS circuit with India put into operational use in March 2011. ATN/AMHS circuit with UK put into operational use in March 2012. ATN/AMHS circuit with Thailand put into operational use in December 2014. ATN/AMHS circuit with Australia put into operational use in October 2016. ATN/AMHS circuit with Indonesia put into operational use in February 2018. ATN/ AMHS circuit with Malaysia put into operational in March 2020. Inter-Operability Test (IOT) with Japan and Vietnam started in 2019. IOT with Philippines, Sri Lanka, Bahrain and Brunei targeted in 2020/2021.	FREQUENTIS COMSOFT	Operational with Ho Chi Minh implemented July 2014 Kuala Lumpur operational trial started since September 2018 and is implemented Nov. 2019. Manila operational trial started in February 2019. Implementation Nov. 2019 Technical trials with Jakarta ACC will be initiated once the Jakarta ACC ATMS renewal is completed.	THALES supports ICD Version 3 since December 2018	AMHS implemented. ATN/AMHS circuit with India put into operational use in March 2011. ATN/AMHS circuit with UK put into operational use in March 2012. ATN/AMHS circuit with Thailand put into operational use in December 2014. ATN/AMHS circuit with Australia put into operational use in October 2016. ATN/AMHS circuit with Indonesia put

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
					into operational use in February 2018. ATN/ AMHS circuit with Malaysia put into operational in March 2020. Inter-Operability Test (IOT) with Japan and Vietnam started in 2019. IOT with Philippines, Sri Lanka, Bahrain and Brunei targeted in 2020/2021.
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; - Male testing and operational date TBD.	IDS	Trials with Male planned for in 3Q2019. Trial with Chennai on-going. Plan for implementation in 2018 and with Melbourne plan for 1Q2018.	INTELCAN which is able to support ICD Version 3.	
THAILAND	BBIS/BIS Routers already implemented. AMHS has been implemented since July 2011. Connection with Bangladesh, Bhutan, Cambodia, China, India, Lao PDR,	AEROTHAI's AMHS System	The implementation with • Malaysia has done on 14th March 2020	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
	Myanmar, Singapore, Hong Kong China implemented. Implementation with Malaysia has done on 14t . Interoperability Test: with Viet Nam planned for end of 3Q2019 and Italy planned for end of 4Q2019 Connection with SITA (SITA AMHS Gateway inter-connections) implemented.		• Lao PDR has done on 14th July 2020 In addition, it is planned to implement AIDC with Cambodia and Myanmar by 3Q2020 and 4Q2020 consecutively.		
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 (1/2019) - Fiji (1/2019) - New Zealand (1/2019) - Japan (2/2019) - Philippines (3rd 2020)	IN-HOUSE	- Fiji, Japan, New Zealand, - Tahiti (via New Zealand), - Papua New Guinea (via Australia) - Philippines (3rd 2020) - Indonesia via Australia (2019) - Russian Federation (pending joining CRV)	IN-HOUSE which is able to support APAC and NAT ICDs currently 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
VANUATU					
VIET NAM	AMHS (basic) implemented. Trial phase from 4Q/2015 to 3Q/2018. IOT with Thailand in progress from 4Q/2017 Plan to use AMHS in 4Q/2018; Planned for IOT with Hong Kong, Singapore and Thailand in 2019 For IOT with Laos PDR and Cambodia in 2019.	IN-HOUSE	Operational between Ho Chi Minh and Singapore since July 2014. Trial for additional messages sets since 2018. Implementation between Ho Chi Minh with Philippines planned for 4Q2020; Technical testing with Cambodia already done; Trials between Hanoi and Vientiane, Lao. PDR on going. with Malaysia TBC Testing with Cambodia on – going; For operation trial TBC.	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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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	Status (Open/Closed)
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 Support for offsets and weather deviations expected to be delivered during Q1/Q2 2021	**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 software corrections expected to be delivered during Q1/Q2 2021	**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**
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**

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	Status (Open/Closed)
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 NagpurACC/ 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**
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**

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	Status (Open/Closed)
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 / Delhi ACC	Delhi / Varanasi	-	-	b. ATM System, or	Some HMI issues at Varanasi.	Frequent	Low	Mumbai ACC/ RAYTHEON	New AMSS installation at Delhi in progress (OPEN). Likely by December 2016. / 30Jan2018 ***) Proposed to be REMOVED***	**OPEN**
AIDC-ISSUE-29	India / Delhi ACC	Delhi / Nagpur	-	-	b. ATM System, or	Some HMI issues at Varanasi.	Frequent	Low	Delhi ACC/ RAYTHEON	New AMSS installation at Delhi in progress (OPEN). Likely by December 2016 / 30Jan2018 ***) Proposed to be REMOVED***	**OPEN**
AIDC-ISSUE-30	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-31	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-32	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-33	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**
AIDC-ISSUE-34	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-35	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**

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	Status (Open/Closed)
AIDC-ISSUE-36	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-37	India / Kolkata ACC	Kolkata / Chennai Kolkata / Nagpur Kolkata / Varanasi Kolkata / Guwahati	-	-	b. ATM System, 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	Medium	Kolkata ACC/ INDRA	Nil / 4Jan2019 ***) Proposed to be REMOVED***	**OPEN**
AIDC-ISSUE-38	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-39	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-40	India / Chennai ACC	Chennai / Mangalore	-	-	d. Airspace Design/Procedures, or	Airspace configuration issue.	Frequent	Medium	Chennai ACC/ RAYTHEON	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-41	India / Chennai ACC	Chennai / Trichy	-	-	d. Airspace Design/Procedures, or	Airspace configuration issue.	Frequent	Medium	Chennai ACC/ RAYTHEON	Nil / 30Jan2018	**OPEN**
AIDC-ISSUE-42	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-43	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-44	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-45	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-46	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-47	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**
AIDC-ISSUE-48	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**

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	Status (Open/Closed)
AIDC-ISSUE-49	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-50	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-51	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-52	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-53	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-54	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-55	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-56	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-57	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-58	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-59	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
AIDC-ISSUE-60	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-61	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

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	Status (Open/Closed)
AIDC-ISSUE-62	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-63	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-64	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-65	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-66	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-67	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-68	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-69	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-70	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
AIDC-ISSUE-71	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-72	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-73	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-74	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

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	Status (Open/Closed)
AIDC-ISSUE-75	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-76	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-77	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-78	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-79	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-80	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-81	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	'RAYTHEON-CHENNAI, SELEX-BENGALURU,SELEX-HYDERABAD	SSR code issue at Chennai resolved 29-03-2019	CLOSED
AIDC-ISSUE-82	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-INDRA, RAYTHEON-CHENNAI, INDRA-NAGPUR/VARANASI/GUWAHATI		OPEN
AIDC-ISSUE-83	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
AIDC-ISSUE-84	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

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	Status (Open/Closed)
AIDC-ISSUE-85	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	EST was transmitted more than one time only to Manila. Volume sector configuration parameter was checked and no issue was found. It's happened in March - May. In Juni, it happened very rare. Ongoing to analyze log file from ATM System to find the problem / 26Jun2020	**OPEN**
AIDC-ISSUE-86	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-87	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-88	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-89	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 / 22Oct2019	**OPEN**

UPDATED ACTION ITEMS FOR ASIA/PAC AIDC TASK FORCE

a) Members States/Administrations of the Task Force to provide identified ISSUES for sharing/learning by filling in AIDC Issues Form which is provided in AIDC Implementation Guidance Document (AIDC IGD):

ACTION BY: All Member States/Administrations and to be consolidated by Indonesia supported by India and Singapore for review by each meeting of the Task Force. Issues have been put into categories and groups for easy reference and analysis. Contribution by member States – on going

- **To encourage Member States of the Task Force for timely report and updating attached to meeting report and provided in database (portal site) for sharing by States/Administrations**

b) Identification of common issues as an ACTION PLAN which small working groups to be established when necessary and possible with invitation to aviation industry for input. Develop an action plan for the identified ATSUs with priorities for implementation; Go-teams to assist when required (subject to funding available and requirement in place);

ACTION BY: by the Task Force
Status: Small working group (based on TOR) is considered not practical. Bilateral parties to address some of the issues and established the target date of implementation. (in most case two parties).

On-going

c) Development of AIDC IGD Edition 1.0 in accordance with item C of TOR. Also need to maintain the AIDC IGD to current and update the consolidated list of issues.

This task link with item c), work has been done by the ad hoc WG and endorsed by the Task Force adopted by CNS SG/21 in July 2017 on behalf of APANAPIRG. It may require maintaining the document by the Task Force as necessary. The updated list of consolidated issues is indicators for implementation progress and the list should be updated with items closed or open.

ACTION BY: APA TF. The development of AIDC IGD completed and maintenance of the IGD - On-going –APA TF/6: States/Administrations may wish to provide recommendation for updates if necessary.

d) The issues collected need to be classified into groups with common problem in nature. The successful solution should be recorded in a database (portal site) for consideration by other States/Administrations. Indonesia agreed to take the lead for analysis and grouping and Singapore/India to support this task. (Similar to action item A)

ACTION BY: APA TF and ICAORO on-going

e) The Secretariat was requested to coordinate with ICAO HQ to create the dedicated AIDC Implementation portal site to keep AIDC related information and documents.

ACTION BY: All member States/Administrations

Need more effectively use: https://portal.icao.int/AIDC/SitePages/Home.aspx group name: AIDC (Completed-jointly use the portal site for "Developing a NAT and APAC AIDC ICD) . The portal is considered available.

f) Singapore and India to update the graphical presentation on the regional AIDC implementation status as shown in **Appendix D** to the APA TF/6 meeting report for review by CNS SG/24 meeting in December 2020.

ACTION and CONTRIBUTION BY: Singapore and India

g) All members are requested to further review the TOR of APA Task Force to prepare comments for readily discussion at APA TF/6 meeting in 2020 to determine whether further extension of the Task Force work is required and whether the on-going tasks can be transferred to other contributory of APANPIRG.

ACTION BY: All member States/Administrations

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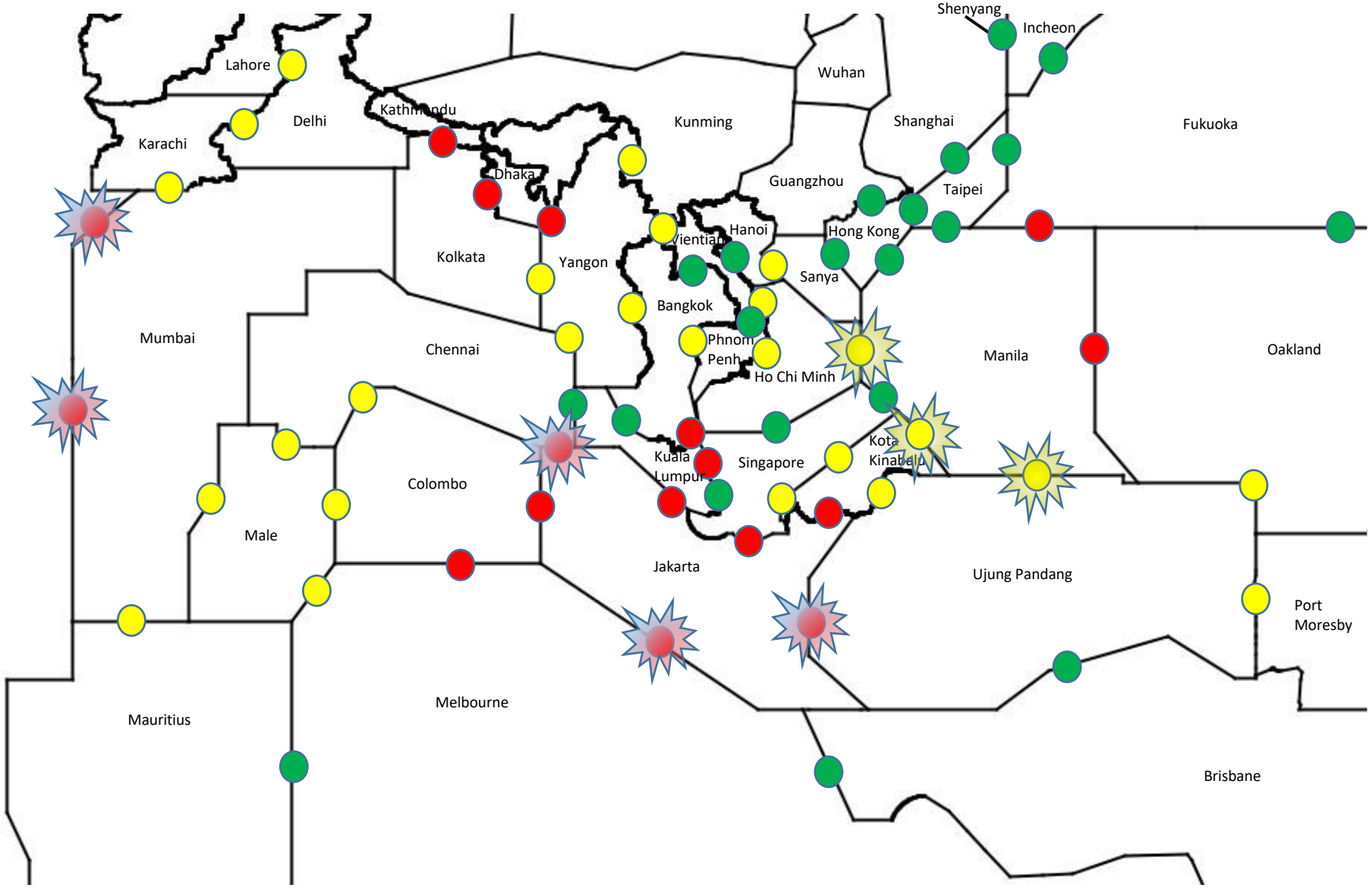

AIDC Status

- AIDC Implemented
- Trials (Operational/technical)
- Not implemented

Legend

Hotspots *RASMAG/24*

- Hotspots with AIDC or AIDC implementation
- Hotspots with no plans for AIDC implementation

APA AIDC Implementation Chart ver 2 (Jul 2020)

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LIST OF WORKING AND INFORMATION PAPERS

WP/IP/ No.	Agenda	Subject	Presented by
WORKING PAPERS			
WP/1	-	Provisional Agenda	Secretariat
WP/2	2	Outcome of APANPIRG/30 and CNS SG/23 Meetings on AFS and AIDC	Secretariat
WP/3	5	Review of the Terms of Reference of APA Task Force	Secretariat
WP/4	6	Review of the Outstanding Tasks/Action Item of APA Task Force	Secretariat
WP/5	4	AIDC Implementation Issue Report	India, Indonesia and Singapore
INFORMATION PAPERS			
IP/1	-	Meeting Bulletin	Secretariat
IP/2	3	AIDC Implementation in Malaysia	Malaysia
IP/3	3	AIDC Implementation in Singapore	Singapore
IP/4	3	AIDC Implementation in India	India
IP/5	3	Progress of AIDC Implementation in China	China
IP/6	3	The Launch and Promotion of AIDC Handover between China and Laos	China
IP/7	7	Promotion and Application of Electronic Handover Technology based on MH/T4029.3	China
IP/8	3	Update of AIDC Implementation Status	Indonesia
IP/9	3	AIDC Implementation Status in Thailand	Thailand
IP/10	3	AIDC Operational Trial in Manila FIR	Philippines

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