INTERNATIONAL CIVIL AVIATION ORGANIZATION

ASIA AND PACIFIC OFFICE

REPORT OF

THE FIRST MEETING OF ATS INTER-FACILITY DATA COMMUNICATION TASK FORCE MEETING (APA TF/1)

16 – 18 June 2015
Bangkok, Thailand

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1.   Introduction

1.1   The First meeting of the ATS Inter-facility Data Communication Task Force (APA/TF) was held in Bangkok, Thailand from 16 to 18 June 2015.

2.   Attendance

2.1   The meeting was attended by 31 participants from 13 States (Cambodia, India, Indonesia, Laos PDR, Malaysia, Maldives, Mongolia, Papua New Guinea, Philippines, Singapore, Sri Lanka, Thailand and USA). 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 thanked Administrations and delegates for making efforts to fit this meeting into their busy schedules, noting that the AIDC Task Force had been identified as one of priorities for implementation in the Asia/Pacific Regions.

4.   Officers and Secretariat

4.1   Mr. Anurag Sharma, Joint General Manager (CNS) Airports Authority of India and Mr. Kwek Chin Lin, Head (Air Traffic Management Operations Systems), Civil Aviation Authority of Singapore, acted as Co-chairs for the Task Force. Mr. Li Peng, Regional Officer CNS, Asia and Pacific Office acted as Secretary of the meeting.

5.   Organization, Working arrangement, Language and Documentation

5.1   The working language was English inclusive of all documentation and this report. A list of working and information papers presented at the meeting is at **Attachment 2.**

Agenda Item 1:   Election of Chairperson

1.1   Mr. Anurag Sharma, Joint General Manager (CNS) Airports Authority of India and Mr. Kwek Chin Lin, Head (Air Traffic Management Operations Systems), Civil Aviation Authority of Singapore were unanimously elected as the co-chairs of the Task Force.

Agenda Item 2:   **Adoption of Agenda**

2.1   The agenda items presented in WP/01 were adopted as Agenda for the meeting.

Agenda Item 3:   **Review of outcomes of relevant meetings and AIDC Seminars in 2014**

Outcome of APANPIRG/25 on AIDC including TOR of the Task Force (WP/02)

3.1   Under this agenda item, the meeting reviewed the outcome of APANPIRG/25 on AIDC including adoption of Pan Regional ICD for AIDC and Decision 25/37 regarding establishment of AIDC Implementation Task Force.

3.2   In this connection, the meeting reviewed the Terms of Reference of the Task Force. The meeting discussed the task b) in ToR regarding solving the problems according to the action plan, it was understood that the Task Force would be able to develop recommendations for solving the problems identified in the action plan. It will be the responsibility of concerned States/Administrations to resolve the actual implementation issues. The meeting also expressed concerns of the effectiveness of the teleconference to complete the assigned tasks. When necessary, the agenda and subject for discussion by the Teleconference should be concise and clear. Some prepared written information should be exchanged through emails before the meeting taking place.

3.3   The meeting also noted the Conclusion 25/38 urging States/Administrationin the APAC Region to share their implementation plans and experience to expedite AIDC implementation in a harmonized and timely manner.

Outcome of AIDC Seminar (WP/03)

3.4   The meeting reviewed the outcome of the AIDC Seminar held from 28 to 31 October 2014 in Bangkok, Thailand.

3.5   The meeting also discussed the following challenging subjects and issues identified during the Seminar such as:

- Message set implemented based on operational requirement and bilateral agreement;

- Interoperability between ATM automated systems supporting different versions of AIDC ICDs;

- Interoperability between ATM automated systems from different vendors;

- Issues relating to the complexity of interoperability using AIDC/OLDI between different ICAO Regions mainly APAC, EUR/NAT and MID;

- possible use of AIDC message between Aerodrome (Control TWR) and ATC Centre (Air Traffic Service Unit) in the neighboring Administration and between aerodromes closer to FIR boundaries; and

- training, testing and issues forms used.

3.6   The meeting reviewed and discussed the recommendations developed by the Seminar for considerations by the Task Force. The meeting set up an ad hoc working group with members from Singapore, Indonesia, India, Laos PDR., Thailand and USA to consolidate those recommendations which would provide implementation guidance to States/Administrations. The meeting formulated following draft Conclusion:

Draft Conclusion 1/1 –Recommendations for AIDC Implementation

That, a list of recommendations provided in **Appendix A** to this report be adopted and distributed to States/Administrations for AIDC Implementation guidance.

Compatibility Issue between AIDC Versions 1, 2 and 3

3.7   The meeting also noted compatibility issues using different versions of the AIDC ICD. The enhancements introduced during the development of Version 2 and 3 were designed to permit continued interoperability with Version 1. For example, when a block level format was defined for Field 14, it was explicitly stated that this was an optional format to only be used with agreement between the two ATS Units. As such it is the responsibility of the vendor to ensure that these optional formats can be configured for each neighboring ATS Unit.

3.8   The following diagram depicts the significant differences between AIDC Version 1 and the subsequent AIDC versions.
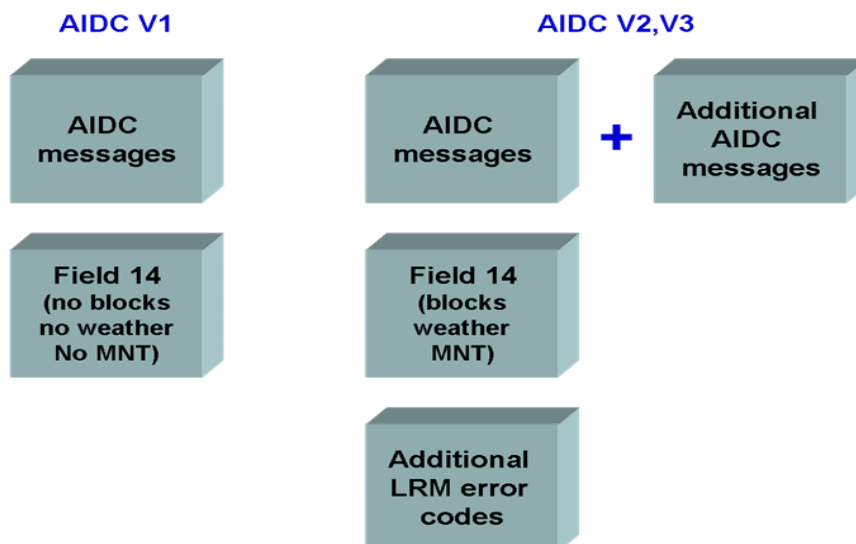
The diagram shows that everything in AIDC Version 1 is included in AIDC V2 and V3. As such, an AIDC V1 ATS Unit is interoperable with an AIDC V2 or 3 ATS Unit.

The additional messages in AIDC V2 and V3 are not supported by AIDC V1. However this is controlled by simply not sending these messages

As described above, the optional Field 14 formats should not be included in messages sent to an AIDC V1 ATS Unit, which makes Field 14 interoperable too.

The additional LRM error codes were designed to support the new AIDC messages and the Field 14 formats. Because an AIDC V2 or V3 ATS Unit will not be receiving these messages or formats from an AIDC V1 ATS Unit, this means that they will not send these error codes to an AIDC V1 ATS Unit.

Therefore AIDC messaging is also interoperable between an AIDC V2/V3 ATS Unit and an AIDC V1 ATS Unit. The above description regarding compatibility between different versions of AIDC ICD would be included in the guidance materials to be developed.

3.9   The meeting endorsed the recommendation that any planned new ATM automated system should be capable of supporting Pan regional ICD for AIDC.

Draft Conclusion 1/2 – Use of Pan regional ICD for AIDC

That, States/Administrations in the Asia/Pacific Regions be encouraged to use the Pan Regional ICD for AIDC for any planned new ATM automated system or updating ATM automated systems for AIDC function.

Agenda Item 4:   **Issues tracking**

   a)   identify issues in BOB and SCS regions

   b)   identify issues in other areas of APAC region including transregional problems

Major issues in the implementation of AIDC in India (WP/06)

4.1   India presented the implementation status of AIDC in India and with neighboring ATSUs. The major observed implementation issues were also highlighted.

4.2   A number of successful trials had been carried out between various ATS units in India including those with different ATM systems. India is having boundaries with adjacent ATSUs of both intra and inter Region States (MID/AFI) and has plans to establish AIDC connections with Bangladesh, Myanmar, Thailand, Pakistan, Nepal, Seychelles, Malaysia, Indonesia, Sri Lanka, Kenya, Oman and Maldives, Mauritius and Somalia. Successful trials have been carried out with adjacent ATSUs of neighboring states in the sub-region between :

   • Chennai – Kuala Lumpur (Malaysia)
   • Chennai – Male (Maldives)
   • Ahmedabad – Karachi (Pakistan)
   • Delhi – Karachi (Pakistan) (Successful one way)

Some of the implementation issues were identified in the paper and also highlighted some benefits of all the states planning to carry out AIDC testing.

Priorities identified by RASMAG

4.3   The Secretariat highlighted the ATS transfer human errors related safety issues which were identified by RASMAG/18 and RASMAG/20 meetings. Considering that ATS Inter-facility Data Communications (AIDC) is an important means of minimizing Large Height Deviations (LHD), Asia/Pacific States were urged by APANPIRG (in 2013) to support the expedition of AIDC through collaborative projects at the following significant LHD interface areas:

   a) Indonesia: between Jakarta and Chennai/Ujung Pandang/Brisbane/Melbourne FIRs;

   b) India: between Chennai and Kuala Lumpur FIRs;

   c) Philippines: between Manila and Fukuoka/ Taibei /Hong Kong/Ho Chi Minh/ Singapore/ Kota Kinabalu /Ujung Pandang FIRs; and

   d) China: between –
       i.   Urumqi and Lahore FIRs; and
       ii. Beijing and Ulaan Baatar FIRs.

4.4   The meeting was reminded of the suite of messages specified in the regional Seamless ATM Plan. It is an initial suite of messages to allow States to enter the AIDC environment. Paragraph 7.35 in the Seamless Plan, AIDC in section of Preferred ATM Service Levels (PASL) Phase 1 for the first phase (2015) refers and paragraph 7.49 for the second phase (2018) refers. The other concerned issues include AFTN (communication links) performance. As each AIDC message sent will result in at least one technical response (LAM or LRM), and where necessary an operational response (e.g. EST/ACP, TOC/AOC). Some timeout timer is required to be set based on performance of the communications circuit and LoA.

4.5   The meeting considered necessary to develop some kind issues/problems report form based on the one discussed at the AIDC Seminar in October 2014. The meeting agreed the simplified form for use by States/Administrations which is provided in the **Appendix B** to this report. States/Administrations in a position to do so were encouraged to submit the identified issues using the form to the ICAO Regional Office for consolidation and review by the Task Force at next meeting. The ICAO Regional Office was requested to issue a State Letter to States/Administrations asking for the input.

Agenda Item 5:   Develop and execute action plan

5.1   Based on the priorities identified by the RASMAG and AIDC implementation planning Table CNS 1E (going to be renamed as CNS II-5), the updated planning information for the concerned key AIDC connections had been included in the updated draft Planning Table. The Task Force is expected to develop an Action Plan focusing those connections need to be implemented with priorities. This was considered as one of the Tasks included in Task List for the AIDC Task Force.

Agenda Item 6:   Review of regional specific requirements for APAC eANP (Table CNS 1E)

6.1   The meeting noted the outcome of the e-ANP working group held in April 2015 (WP/05). The current FASID Table CNS 1E was considered necessary by the Task Force as the regional specific requirement for inclusion into the Vol. II of the new APAC e-ANP based on the recommendations from AIDC Seminar. The meeting endorsed the recommendation to keep this planning table into the regional air navigation plan (new e-ANP) as regional specific requirement.

6.2   The meeting also proposed to combine the two sub-columns in the Column 3 into single Column with a "/" a separation between the location of ACC and name of correspondent Administrations. The meeting also agreed to add quarter information in the target date of implementation. For the title of Column 4, the meeting endorsed the proposed change to "transmission means" to replace "AIDC Standard used". The meeting further proposed to remove all TBD and "subject to" from the planning Table.

6.3   The meeting further updated contents of the Table and formulated following draft Conclusion for consideration by CNS SG:

Draft Conclusion 1/3 - Regional Air Navigation Plan -Table CNS II-5 - AIDC Implementation Plan

That, Table CNS II-5 - AIDC Implementation Plan provided in **Appendix C** be kept as regional specific requirement for inclusion in Vol. II of new e-ANP as implementation of AIDC is identified as one of priorities by APANPIRG.

Agenda Item 7:   Asia/Pacific AIDC implementation Guidance Material

7.1   The meeting discussed the need for development of the required AIDC Implementation guidance material as mandated as Task C in the TOR of the Task Force. The meeting identified a number of sources for consolidation of the additional guidance material including the following:

-       Chapter 6 and Appendix A and C of Pan Regional ICD for AIDC;
-       Issues previously identified at AIDC Seminar held in October 2014;
-       WP/6 from India (Paragraph 2.4 and 2.8), WP/4 from Indonesia (Paragraph 2.2 & 2.3) and WP/7 from Singapore (Paragraph 3) of APA TF/1 meeting; and
-       AIDC Issues Form to be completed and submitted by States.

7.2   The meeting agreed to develop the guidance material based on the example of AIGD for ADS-B implementation in the Asia and Pacific Regions. In order to complete the task by Middle June 2016, the meeting agreed to establish an ad hoc working group for the guidance material. Mr. Kwek Chin Lin, co-chair of the Task Force agreed to take the lead for the small working group with members from India, Laos PDR, Malaysia, Singapore and Thailand. The team lead will contact former IRAIDC TF members from Australia and New Zealand as necessary for additional support if required. Accordingly, the meeting made following decision:

Decision 1/4 – Ad Hoc Working Group for AIDC Guidance Material

That, an Ad Hoc Working Group be established with Singapore as team lead, with members from India, Laos PDR, Malaysia and Thailand to develop AIDC Implementation Guidance Material. A target date of January 2016 was established for the first cut, to be reviewed by the Task Force members at the next meeting.

Agenda Item 8:   Sharing of experience on AIDC implementation including training and implementation packages

8.1   Under this agenda the meeting reviewed WP/04 presented by Indonesia and WP/07 presented by Singapore. The meeting was pleased to note the progress achieved and the implementation plan for AIDC between ATSUs of these States and their neighbouring ATSUs. The meeting also noted the lessons learnt and experience gained as provided in the papers.

8.2   Several implementation issues highlighted in these two working papers were discussed during the meeting. Queries regarding the rejection of EST and training etc. were clarified. These issues will be further reviewed and considered for inclusion into the guidance material to be developed.

8.3   Singapore provided a summary of the various activities conducted or planned for AIDC implementation with adjacent FIRs in the table below:

State/ATC unit	Technical test commencement	Implementation date	AIDC messages	Remarks
Vietnam/Ho Chi Minh ACC	December 2013	24 July 2014	Phase 1 (24th July 2014) : EST, ACP, LAM, LRM Phase 2 (3Q 2015): ABI, TOC, AOC	Phase 2 operational trials started on 15 June 2015
Malaysia/ Kuala Lumpur, Kota Kinabalu and Kuching ATCCs	December 2014	December 2015: Kota Kinabalu ATCC January 2016: Kuching ATCC February 2016: Kuala Lumpur ATCC	ABI, EST, ACP, LAM, LRM, TOC, AOC	Messages for different phases and ATCCs are yet to be finalized. Coordination meeting planned for July 2015 for discussion.
Philippines/ Manila ACC	December 2014	December 2015	ABI. EST. ACP, LAM, LRM, TOC, AOC	Initial testing December 2014 with interim system. Further technical testing will be scheduled for July 2015.
Indonesia/Jakarta ATSC	TBA	December 2016*	ABI. EST. ACP, LAM, LRM, TOC, AOC	Jakarta ATSC expected AIDC capability in September 2015. Discussions on AIDC implementation to commence in 3Q 2015.

8.4   A number of information papers from Indonesia (IP/02), Malaysia (IP/04) and Sri Lanka (IP/05) were also presented to the meeting. The progress made by States was highlighted as follows:

-          Indonesia: The ATM system in Jakarta ATSC will be upgraded to support AIDC capability by October 2015. AirNav Indonesia plans to start the AIDC implementation between Jakarta ATSC with Ujung Pandang ATSC first as first phase then followed by AIDC implementation with other adjacent ATSCs from the second quarter of 2016. AIDC trials between Brisbane and Makassar ATSCs had been carried out for number of years.

-          Malaysia: ATM Automation systems at Kuala Lumpur, Kota Kinabalu and Kuching ATCCs are capable to support APAC AIDC ICD Version 3. A series of trials had been carried out including:

    a) Kuala Lumpur and Chennai since 2013;
    b) Kuala Lumpur and Singapore since January 2015;
    c) Kota Kinabalu and Singapore in December 2014;
    d) Kota Kinabalu and Makasar in April 2015;
    e) Kuching and Singapore since December 2014.

A number of operational and technical issues were identified and many of which have been resolved. Some pending operational (parameters to be used) and procedural issues are currently being analyzed and hopefully would be resolved in the near future.

-          Sri Lanka: the INTELCAN SKY CONTROL ATM System at Colombo ACC supports AIDC function, the APAC AIDC ICD version 3. AFTN/AMHS will be used for AIDC messages exchange. Initial testing was carried out with Chennai in 2013. Identified disparities of AIDC message format were resolved in collaboration with system suppliers and test with Chennai restarted in 2014 completed successfully using a set of messages including ABI, EST, CDN, ACP, REJ, TOC and AOC. AIDC testing with Melbourne was initiated in 2014 using AIDC messages ABI, EST, CDN, TOC, PAC, FCN and FAN. Identified discrepancies with AIDC message headers and fields which had been fixed; Initial testing with Maldives was carried out in 2013 and was not successful due to errors in destination address configuration settings.

-          USA informed the meeting of their AIDC applications. With the exceptions of Manila ACC and Port Moresby ACC, the United States has successfully implemented AIDC with its adjacent ANSPs, utilizing APAC ICD Version 2.0 and is in compliance with the protocols in the recently developed Interregional ICD. Future AIDC implementations in the Asia and Pacific Regions include transitioning many of AFTN connections to AMHS and completing AIDC integration with the above listed ACCs . The implementation timeframe for AMHS (completion of transitions) is 4Q2016. With Manila ACC AIDC via AFTN 1Q2017 (AMHS to follow), with Port Moresby ACC AIDC via AMHS 4Q2016.

8.5   The meeting congratulated all States for having achieved the successful conduct of trials and/or implementation of AIDC.

Benefits of AIDC Implementation

8.6   The introduction of AIDC has brought about the benefits such as reduction of controller workload, increasing efficiency and capacity for operators, and enhancing safety to stakeholders.   Errors such as large height deviations are eliminated as human errors are minimized with the automated coordination process.   Although, some States only use a small message set currently, the benefits of AIDC operations have reap substantial benefits to States as voice coordination is reduced drastically.

8.7   The meeting reviewed and updated the AIDC implementation status based the information provided by the Secretariat in WP/08. The updated information is provided in **Appendix D** to this Report.

Agenda Item 9:   APA/TF Action list

9.1   The meeting discussed the intial list of tasks for the Task Force which is provided in **Appendix E** to this report.

Agenda Item 10:   Next meeting

10.1   The meeting considered it necessary to have another meeting in early 2016. The Secretariat will inform the members States of the Task Force accordingly when the exact dates and venue be agreed by APANPIRG. Teleconference for the small working group for development of the guidance material is scheduled for October 2015.

Agenda Item 11:   Any other business

11.1   The meeting further discussed the proposal regarding need of focal points for AIDC implementation designated by States/Administrations as recommended by the AIDC Seminar. The meeting endorsed the recommendation and formulated following Decision:

Decision 1/5 – Focal point for AIDC Implementation

That, Member States of AIDC Task Force nominate focal points for AIDC implementation in order to facilitate communications between counter parts to expedite AIDC implementation.

11.2   In closing the meeting, the Chairmen thanked participants for their active participation and wished all participants to have a safe and pleasant trip home.

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RECOMMENDATIONS FOR AIDC IMPLEMENTATION

− States/Administrations to share experience on AIDC implementation including sharing of training and implementation packages and visit each other;

− Define operational requirements and specify scope of operational improvements (determine what AIDC messages set is required to be supported) at initial planning stage;

− Engage both technical and operational experts (CNS/ATM) in the process of AIDC implementation from initial stage;

− Define the objectives for trials to avoid any problems during the implementation process;

− Develop a comprehensive and detailed testing plan including testing scripts to evaluate the process of the implementation;

− ATCOs should be trained for using AIDC in a safe and efficient manner before its implementation and before each upgrade (message set, HMI or system). The training syllabus should consist of theory and practice (CBT, simulator, OJT);

− Develop a training plan taking into consideration specific requirements for ATCO, FDO and ATSEP; and

− The Asia and Pacific AIDC TF (APA TF) to maintain the AIDC issues table and to follow up with the action plan to resolve the issue as one of the top priorities.

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Issue reference	Date of First Report	Description of fault	Fault Type	State/ATSU/Vendor	Priority (assessed by TF or RO)	Actions Taken/Updated Date/Status (Open/Closed)
AIDC-ISSUE-1	yyyy/mm/dd	Brief summary of fault in not more than 20 words	Technical or Operational	STATE/ATSU/VENDOR	High or Low (depending on ops/safety impact, frequency)	Description of correction action
AIDC-ISSUE-2	2014/06/01	**Example**: Not receiving LAM, AOC messages	Technical	SRI LANKA/COLOMBO/THALES	Low	Vendor is investigating, suspect to be test platform issue/18Jun2015/Open.
AIDC-ISSUE-3						
AIDC-ISSUE-4						
AIDC-ISSUE-5						
AIDC-ISSUE-6						
AIDC-ISSUE-7						
AIDC-ISSUE-8						
AIDC-ISSUE-9						
AIDC-ISSUE-10						
AIDC-ISSUE-11						
AIDC-ISSUE-12						
AIDC-ISSUE-13						

TABLE CNS II-5

**ATS INTER-FACILITY DATA COMMUNICATION (AIDC)
IMPLEMENTATION PLAN**

EXPLANATION OF THE TABLE

Column

1   State/Administration – the name of the State/Administration;

2   Location of AIDC end system – the location of the AIDC end system under the supervision of State/Administration identified in column 1;

3   AIDC Pair – the correspondent AIDC end system;

         Location – location of the correspondent AIDC end system

         State/Administration – the name of the State/Administration responsible for management of the correspondent AIDC end system

         A "/" is placed between the location and State/Administration

4   Transmission Means – the transmission means used for the AIDC messages exchanged between the corresponding AIDC pair, AFTN, AFTN/AMHS;

5   Target Date of Implementation – date of implementation of the AIDC end system in the form of xQyyyy or yyyy (quarter year);

6   Remarks – any additional information describing the AIDC end system or the AIDC service between the corresponding AIDC pair.

State/Administration	Location of AIDC System ATSU1	AIDC System Pair ATSU2 /Correspondent State – Administration	Transmission Means	Target date of Implementation xQyyyy	Remarks
1	2	3	4	5	6
AFGHANISTAN	Kabul ACC	Kabul ACC /Afghanistan	AFTN/AMHS		
AUSTRALIA	Brisbane ACC	Oakland ARTCC /USA	AFTN	Implemented	
			AFTN/AMHS		
		Auckland ACC /New Zealand	AFTN	Implemented	
			AFTN/AMHS		
		Melbourne ACC /Australia	AFTN	Implemented	
			AFTN/AMHS		
		Makassar ACC /Indonesia	AFTN	4Q2015	
			AFTN/AMHS		
		Nadi ACC /Fiji	AFTN	Implemented	
			AFTN/AMHS	Implemented	
		Port Moresby/PNG	AFTN		
			AFTN/AMHS	3Q2016	
	Melbourne ACC	Brisbane ACC /Australia	AFTN	Implemented	
			AFTN/AMHS		
		Jakarta ACC /Indonesia	AFTN		
			AFTN/AMHS		
		Mauritius ACC /Mauritius	AFTN	Implemented	
			AFTN/AMHS		
BANGLADESH	Dhaka ACC	Kolkata ACC /India	AFTN/AMHS	2017	
		Yangon ACC /Myanmar	AFTN/AMHS	2017	
BHUTAN					
BRUNEI DARUSSALAM					
CAMBODIA	Phnom Penh ACC	Bangkok ACC /Thailand	AMHS	2016	
		Vientiane ACC/Laos PDR	AMHS	2016	
		Ho Chi Minh ACC/Viet Nam	AFTN/AMHS	2016	

State/Administration	Location of AIDC System ATSU1	AIDC System Pair	Transmission Means	Target date of Implementation xQyyyy	Remarks
		ATSU2 /Correspondent State – Administration			
1	2	3	4	5	6
CHINA	Beijing ACC	Incheon ACC /Republic of Korea	AFTN		
		Ulaanbaatar ACC/Mongolia	AFTN	2016	
	Sanya ACC	Hong Kong ACC /Hong Kong, China	AFTN	Implemented	
		Ho Chi Minh ACC /Vietnam	AFTN		
	Kunming ACC	Yangon ACC /Myanmar	AFTN	2016	
	Guangzhou ACC	Hong Kong ACC /HK China	AFTN		
	Taibei ACC	Hong Kong ACC /HK China	AFTN	Implemented	
	Urumqi ACC	Lahore ACC /Pakistan			
	Qungdao ACC	Incheon ACC /Republic of Korea	AFTN	2015	
	Shanghai ACC	Fukuoka ATMC /Japan	AFTN		
HONG KONG, CHINA	Hong Kong ACC	Guangzhou ACC /China	AFTN		
		Sanya ACC /China	AFTN	Implemented	
		Manila ACC /Philippines	AMHS		
		Taibei ACC /China	AFTN	Implemented	
MACAO, CHINA	Macao ATZ				Automatic transfer of control with adjacent ATC units is applicable instead of AIDC
COOK ISLANDS					
DEMOCRATIC PEOPLE'S REPUBLIC OF KOREA					
FIJI	Nadi ACC	Auckland ACC /New Zealand	AFTN	Implemented	ICD V.1.0
		Brisbane ACC /Australia			ICD V. 1.0
			AFTN/AMHS	Implemented	
		Oakland ARTCC /USA			ICD V.1.0
			AFTN/AMHS	Implemented	
FRANCE *FRENCH POLYNESIA NEW CALEDONIA*	Papeete ACC				
		Auckland ACC /New Zealand	AFTN	Implemented	ICD V. 2.0
		Oakland ARTCC /USA	AFTN	Implemented	

State/Administration	Location of AIDC System ATSU1	AIDC System Pair	Transmission Means	Target date of Implementation xQyyyy	Remarks
		ATSU2 /Correspondent State – Administration			
1	2	3	4	5	6
INDIA	Ahmedabad ACC	Karachi ACC /Pakistan	AFTN	3Q2016	
	Chennai ACC	Colombo ACC / Sri Lanka	AFTN	3Q2016	
		Jakarta ACC /Indonesia	AFTN		
		Kuala Lumpur ACC / Malaysia	AFTN	1Q2016	
		Male ACC /Maldives	AFTN	2017	
		Yangon ACC /Myanmar	AFTN	2017	
	Delhi ACC	Karachi ACC /Pakistan	AFTN		
		Lahore ACC /Pakistan	AFTN		
	Kolkata ACC	Dhaka ACC /Bangladesh	AFTN	2017	
		Yangon ACC /Myanmar	AFTN	2016	
		Kathmandu ACC /Nepal	AFTN		
	Mumbai ACC	Karachi ACC /Pakistan	AFTN/AMHS		
		Male ACC /Maldives	AFTN	2017	
		Muscat ACC /Oman	AFTN		
		Seychelles ACC / Mauritius	AFTN		
	Varanasi ACC	Kathmandu ACC /Nepal	AFTN		
INDONESIA	Jakarta ACC	Melbourne /Australia	AFTN/AMHS		
		Colombo ACC / Sri Lanka	AFTN		
		Singapore ACC /Singapore	AFTN		
		Kuala Lumpur ACC / Malaysia	AFTN		
		Kota Kinabalu ACC /Malaysia	AFTN		
		Chennai ACC /India	AFTN		
	Makassar ACC	Brisbane ACC /Australia	AFTN	4Q2015	
			AFTN/AMHS		
JAPAN	Fukuoka ATMC	Port Moresby ACC/ PNG	AFTN		
		Kota Kinabalu ACC / Malaysia	AFTN		
		Manila ACC /Philippines	AFTN		
		Anchorage ACC /USA	AFTN	Implemented	ICD V.2.0
		Incheon ACC /Republic of Korea	AFTN	Implemented	ICD V.1.0
		Oakland ARTCC /USA	AFTN	Implemented	ICD V.2.0
		Shanghai ACC /China	AFTN		
		Taibei ACC /Taibei, China	AFTN	Implemented	ICD V.3.0
KIRIBATI					

State/Administration	Location of AIDC System ATSU1	AIDC System Pair	Transmission Means	Target date of Implementation xQyyyy	Remarks
		ATSU2 /Correspondent State – Administration			
1	2	3	4	5	6
LAO PEOPLE'S DEMOCRATIC REPUBLIC	Vientiane ACC	Bangkok ACC /Thailand	AMHS	2Q2015	
		Hanoi ACC /Veitnam	AFTN	2017	
MALAYSIA	Kuala Lumpur ACC	Phnom Penh ACC /Cambodia	AMHS	2016	
		Yangoon/ Myanmar	AFTN	2016	
		Ho Chi Minh/ Vietnam	AFTN	2017	
		Bangkok ACC /Thailand	AFTN	2Q2016	ICD V.3.0
		Singapore ACC /Singapore	AFTN	1Q2016	ICD V.3.0
		Chennai ACC /India	AFTN	1Q2016	ICD V.3.0
		Ho Chi Minh ACC /Vietnam	AFTN	1Q2016	ICD V.3.0
		Jakarta ACC /Indonesia	AFTN		ICD V.3.0
		Singapore ACC /Singapore	AFTN	4Q2015	ICD V.3.0
		Jakarta ACC /Indonesia	AFTN		
	Kota Kinabalu ACC	Makassar ACC /Indonesia	AFTN	4Q2015	
		Manila ACC /Philippines	AFTN	2Q2016	ICD V.3.0
	Kuching ACC	Singapore ACC /Singapore	AFTN	1Q2016	ICD V.3.0
		Colombo ACC/ Sri Lanka	AFTN	2017	
		Melborne ACC /Australia	AFTN	2017	
MALDIVES	Male ACC	Mumbai ACC / India	AFTN	2017	
		Chennai ACC /India	AFTN	2017	
		Mauritius ACC/Mauritius	AFTN	2017	
MARSHALL ISLANDS					
MICRONESIA (FEDERATED STATE OF)					
MONGOLIA		Beijing ACC/ China	AFTN	2016	

State/Administration	Location of AIDC System ATSU1	AIDC System Pair ATSU2 /Correspondent State – Administration	Transmission Means	Target date of Implementation xQyyyy	Remarks
1	2	3	4	5	6
MYANMAR	Yangon ACC	Bangkok ACC /Thailand	AFTN	2016	ICD V.2.0
		Kolkata ACC /India	AFTN	2016	
		Chennai ACC /India	AFTN	2017	
		Kunming ACC /China	AFTN	2016	
		Vientianne ACC /Lao PDR	AFTN	2016	
		Dhaka ACC /Bangladesh	AFTN	2017	
		Varanasi ACC /India	AFTN		
NEPAL	Kathmandu ACC	Kolkata ACC /India	AFTN		
		Lhasa ACC /China	AFTN		
		Nadi ACC /Fiji	AFTN	Implemented	ICD V.1.0
		Port Moresy ACC/ PNG	AFTN	3Q2016	
NEW ZEALAND	Auckland ACC	Brisbane ACC /Australia	AFTN	Implemented	ICD V.1.0
		Nadi ACC /Fiji	AFTN	Implemented	ICD V.1.0
		Oakland ARTCC /USA	AFTN	Implemented	ICD V.2.0
		Papeete ACC /French Polynesia	AFTN	Implemented	ICD V.2.0
			AFTN/AMHS		
PAKISTAN	Karachi	Mumbai ACC /India	AFTN		
		Muscat ACC /Oman	AFTN		
		Tehran ACC /Iran	AFTN		
		Delhi ACC /India	AFTN		
		Ahmadabad ACC /India	AFTN	3Q2016	
		Kabul ACC /Afghanistan	AFTN		
	Lahore ACC	Delhi ACC /India	AFTN		
		Urumqui ACC /China	AFTN/AMHS		
		Tajakistan ACC /Tajakistan	AFTN		
PALAU					

State/Administration	Location of AIDC System ATSU1	AIDC System Pair ATSU2 /Correspondent State – Administration	Transmission Means	Target date of Implementation xQyyyy	Remarks
1	2	3	4	5	6
PHILIPPINES	Manila ACC	Hong Kong ACC /Hong Kong, China	AFTN	4Q2016	
			AFTN/AMHS		
		Singapore ACC /Singapore	AFTN	4Q2015	
			AFTN/AMHS		
		Taibei ACC/Taibei, China	AFTN	2Q2016	
			AFTN/AMHS		
		Kota Kinabalu ACC /Malaysia	AFTN	2Q2016	
			AFTN/AMHS		
		Ho Chi Minh ACC /Viet Nam	AFTN		
			AFTN/AMHS		
		Oakland ARTCC /USA	AFTN	1Q2017	
			AFTN/AMHS		
		Fukoka ATMC /Japan	AFTN		
			AFTN/AMHS		
		Makasar ACC /Indonesia	AFTN		
			AFTN/AMHS		
REPUBLIC OF KOREA	Incheon ACC	Fukoka ATMC /Japan	AFTN	Implemented	ICD V.1.0
		Qingdao ACC /China	AFTN	2015	
SAMOA					
SINGAPORE	Singapore ACC	Ho Chi Minh ACC /Vietnam	AFTN/AMHS	Implemented	
		Manila ACC /Philippines	AFTN/AMHS	4Q2015	
		Jakarta ACC /Indonesia	AFTN/AMHS		
		Kuala Lumpur ACC /Malaysia	AFTN/AMHS	1Q2016	
		Kota Kinabalu ACC /Malaysia	AFTN/AMHS	4Q2015	
		Kuching /Malaysia	AFTN/AMHS	1Q2016	
SOLOMON ISLANDS		Nadi ACC /Fiji			
		Port Moresby ACC/PNG			
		Brisbane ATSC /Australia			
SRI LANKA	Colombo ACC	Male ACC /Maldives	AFTN/AMHS	2017	
		Jakarta ACC / Indonesia	AFTN/AMHS		
		Chennai ACC /India	AFTN/AMHS	3Q2016	
		Melbourne ACC /Australia	AFTN/AMHS	1Q2017	

State/Administration	Location of AIDC System ATSU1	AIDC System Pair ATSU2 /Correspondent State – Administration	Transmission Means	Target date of Implementation xQyyyy	Remarks
1	2	3	4	5	6
TIMOR LASTE					
THAILAND		Kuala Lumpur ACC /Malaysia	AFTN	2Q2016	
		Phnom Penh ACC /Cambodia	AMHS	2016	
		Vientiane ACC /Lao PDR	AMHS	2Q2015	
		Yangon ACC /Myanmar	AFTN	2016	
TONGA					
UNITED STATES	Oakland ARTCC	Auckland OAC /New Zealand	AFTN	Implemented	ICD V.2.0
		Fukuoka ATMC /Japan	AFTN	Implemented	ICD V.2.0
		Nadi ATMC /Fiji	AFTN	Implemented	ICD V.2.0
		Brisbane ACC /Australia	AFTN	Implemented	ICD V.2.0
		Tahiti ACC /Tahiti	AFTN	Implemented	ICD V 2.0
		Port Moresby/PNG	AFTN	3Q2016	
		Manila /Philippines	AFTN	1Q2017	
	Anchorage ARTCC	Anchorage ARTCC /United States	AFTN	Implemented	ICD V 2.0
		Fukuoka ATMC /Japan	AFTN	Implemented	ICD V.2.0
		Oakland ARTCC /United States	AFTN	Implemented	ICD V.2.0
VIET NAM	Ho Chi Minh ACC	Sanya ACC /China	AFTN		
			AFTN/AMHS		
		Phnom Penh ACC /Cambodia	AFTN/AMHS	2016	
		Vientiane ACC /Lao PDR	AFTN/AMHS	2017	
		Singapore ACC /Singapore	AFTN/AMHS	Implemented	ICD V.3.0
		Manila /Philippines	AFTN		
		Kuala Lumpur /Malaysia	AFTN	1Q2016	

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. 64 kbps IPLC established with Fiji. Basic AMHS circuit will be commissioned in September 2014; Another basic AMHS circuit planned for operational in Feb. 2015. The connectivity will be provided by CAAS's VPN.	COMSOFT	AFTN 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.		

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	Bangladesh installed ATN/AMHS at Dhaka (with User Agents at Chittagong (VGEG) and Sylhet (VGSY). BIS Router and AMHS installed in Q1/2013 at Dhaka (VGHS). System Commissioning & SAT completed in March 2013.	COMSOFT	Tentative date of implementation of AIDC is Q1 of 2018 with Kolkata and Myanmar.		AMHS connectivity between Dhaka & Chittagong and Dhaka & Sylhet are already established. Dhaka-Mumbai AMHS connectivity is commissioned on 23 March 2015 and the circuit is operational. Dhaka-BKK AMHS connectivity is expected to be commissioned by the end of May2015 and TMC will be signed accordingly. ATC Center up-gradation of Dhaka is expected to be completed by December 2017. As soon as the ATC up-gradation is completed hopefully Bangladesh will be able to implement AIDC with Kolkata and Myanmar (Q1/2018)

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
BHUTAN	ATN BIS Router and UA service planned for 2015.				
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 on 10 December 2013	AVITECH	AIDC function and capability made available. Ready for testing with neighbors ATS Facilities starting from 2015-2016.	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. Tripartite BBIS trial completed with Bangkok and Hong Kong, China in Jan. 2003. ATN trial with Hong Kong using XOT over internet conducted in 2006, Further trials conducted in 2009. Plan for ATN/AMHS implementation with Hong Kong, China (2016).	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 put in to operational use since 8 Feb 2007. AIDC between Qingdao and Incheon planned for 2015; Implemented between: Guangzhou with Nanning/Zhanjiang/Zhuhai;		

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 Macau, China (2016). ATN/AMHS circuit with ROK put into operational use since June 2011. ATN/AMHS tests with India started from March 2011 using 64 Kbps landline. ATN and AMHS technical trial with Mongolia is TBD. Connection tests with Thailand is TBD Connection tests with Nepal is TBD		Nanning and Kunming/Guiyang/Zhanjiang in 2011; Zhanjiang/Haikou; Chengdu and Chongqing/Guiyang in 2011; Guiyang and Chongqing/Kunming in 2011; Started negotiation for implementation between Dalian and Incheon and Shanghai/Fukuoka.		
HONG KONG, CHINA	Preliminary ATN/AMHS technical trials with China (Beijing) using VPN over Internet connection in 2006. Operational AMHS and BIS router accepted in July2009. ATN/AMHS circuit with Macao put into operation use in Dec. 2009. ATN/AMHS circuit with Bangkok put into operation use in Sept. 2014 ATN/AMHS interoperability tests with other adjacent communications centres commenced in late 2009, viz Taibei (2009), Japan (Planned Q4/2017), Philippines (Planned Q2/2016) and Viet Nam (Planned 2016)	COMSOFT	AFTN-based AIDC with Sanya put into operational use in Feb 2007. AIDC trial with other adjacent ATS authorities for new ATC system to be commissioned by mid-2016. AIDC technical trial with Taibei conducted in 2010 and completed in 2012 and put into operational use in Nov. 2012	Raytheon ATM system Support AIDC ICD Version 3 from mid 2016	

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
	Plan for ATN/AMHS implementation with China (Beijing) (2016).				
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.	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		
FIJI ISLANDS	ATN BIS Router and AMHS implemented	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	

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
FRANCE *(French Polynesia Tahiti)*			Implementation of AIDC (based on Version 3) with adjacent centres (Oakland and Auckland) since 2009		
INDIA	Dual stack ATN/lp router and AMHS implemented at Mumbai in 2011	COMSOFT	AIDC planned with Bangladesh, Myanmar, Thailand, Pakistan, Nepal, Seychelles, Malaysia, Indonesia, Sri Lanka, Kenya, Oman and Maldives Mauritius and Somalia. Successful AIDC trials done between Chennai-Kuala Lumpur, Chennai-Male, Ahmedabad-Karachi, Delhi-Karachi (One way towards Delhi)	1) Raytheon at New Delhi, Mumbai and Chennai 2) Selex at Hyderabad and Bengaluru. 3) INDRA at 39 locations	1) Major Indian airports and ATC centres 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

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
INDONESIA	ATN BIS Router and AMHS planned for trial in 2009. Trial with Singapore planned. ATNBIS Router and AMHS are still ongoing trial with Singapore planned to complete by 2012. (Part D: AMHS Commission)	ELSA	Makasar and Brisbane has been on-going trial AIDC since 2013. Plan for its implementation with Brisbane 4Q2015;	Thales in Makasar which is able to support ICD Version 2.	
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.	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 .		

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 between Fukuoka ACC and Shanghai ACC under negotiation (2014)		
KIRIBATI					
LAO PDR	ATN BIS Router and AMHS completed, put into operation with Bangkok since 2Q 2015.	THALES	AIDC with Bangkok planned for 2016. Testing with Ha Noi for 2017, with Ho Chi Minh2017, With Cambodia for 2016	THALES which is able support ICD Version 2.	
MALAYSIA	ATN BIS Router completed 2007. AMHS planned for 2015.	FREQUENTIS	AFTN AIDC planned with Bangkok ACC – Middle 2Q2016. AIDC between Kuching and KK FIR already implemented in 2014 via AFTN. Between Kuala Lumpur and Chennai trial successful scheduled for operation from 1Q2016. Plan for trial with Singapore from Mid. November 1Q 2016.	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
			Plan for trial with Ho Chi Minh from 1Q 2016		
			Between Kota Kinabalu and Singapore 4Q2015		
			Kuching and Singapore for 1Q2016		
			Kota Kinabalu and Makassar 4Q2015		
MALDIVES	Planned for 2016 as existing AFTN was upgraded recently to make it compatible with protocols of interconnected AMHS systems and the flight plan format 12.		System is AIDC ready. Implementation with ACC's (Chennai, Colombo, Mumbai, Melbourne and Mauritius) plan for 2017.	SELEX which is able to support ICD Version 3.	
MARSHALL ISLANDS					
MICRONESIA (EDERATED STATES OF)					
Chuuk					
Kosrae					
Pohnpei					

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
Yap					
MONGOLIA	AMHS/AFTN gateway implemented 2012. ATNBIS router implemented in 2014. Coordinating with China using ATN/AMHS connection technical trials conducted in 2014.	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 technical trial in progress.	INDRA Aircon 2100 supporting AIDC ICD Version 2.	
MYANMAR	AMHS including ATFTN/AMHS gateway implemented in Nov. 2011	THALES	ATM automation system capable to support AIDC in end of 2015. Plan for with Bangkok with target for implementation in 2016.	THALES	
NAURU					
NEPAL	BIS Router and AMHS commissioned with Kathmandu Mumbai circuit on 2 June 2014.	COMSOFT	AIDC between Kathmandu and Beijing and KTM-BBN and KTM-CCU planned for 2016		
NEW CALEDONIA	New router and AMHS planned at the end of 2013 with Nadi				

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	Some external AMHS connections 2014.	COMSOFT	AIDC implemented between New Zealand, Australia, Fiji, Tahiti, Chile and USA.		
PAKISTAN	ATN/AMHS considered as Phase II implemented since 2010.	COMSOFT	Implemented between Karachi and Lahore ACCs Plan to implement AIDC with Mumbai and Muscat for 2015		Existing Radar system being upgraded.
PAPUA NEW GUINEA	Plans to create a newly duplicated digital communications line connecting with existing and new sites and AMHS system implemented in 4Q2014	COMSOFT	Plan to implement with all neighboring FIRs in 3Q 2016	COMSOFT which is able to support ICD Version 3	
PHILIPPINES	ATN G/G BIS Router/AMHS installed in 2006. Pending AMHS Interoperability tests moved to Q3/2015 both for Singapore and Hong Kong. AMHS trials with Singapore by end 2012 and Hong Kong planned in 2012.	COMSOFT	AFTN based AIDC system (version 2) test plan for Dec. 2014. Plan for implementation with Singapore 4Q2015; 2Q2016 with Taibei, 4Q2016 Hong Kong and 2Q2016Kota Kinabalu; 2017 with Oakland.	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. ATN/AMHS test with Japan to be conducted	SAMSUNG	AFTN based AIDC implemented between ACC and Fukuoka ATMC. AIDC between Incheon and Dalian under negotiation (2014)		
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. On-going ATN/AMHS trial with Indonesia and Malaysia. Coordinating with Australia and Viet Nam to start ATN/AMHS trial in Q3 2015.	COMSOFT	Operational with Ho Chi Minh implemented July 2014. Technical trials with Malaysia (Kota Kinabalu, Kuching and Kuala Lumpur ATCCs) on going since Dec. 2014. Planned operational implementation from Dec. 2015. Technical trials with Manila ACC ongoing since Dec. 2014. Planned operational implementation in Nov. 2015. Planned technical trial with Indonesia plan from Dec. 2015.	THALES currently support s ICD Version 1 and to be upgraded to Version 3 in 2016	

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
SRI LANKA	ATN BIS Router Planned for 2013. AMHS (Domestic) and AMHS/AFTN Gateway implemented by Oct. 2011. - Mumbai testing during Q3/Q4 2014 operational in Nov. 2014; - Singapore testing in Q4 214 operational in Dec. 2014; - Male testing in Q2 2015 operational date TBD.	IDS	Trials with Male' planned for in 2017. Trial with Chennai on-going. Plan for implementation in 3Q2016 and with Melbourne plan for 3Q2015 and implementation for 1Q2017.	INTELCAN which is able to support ICD Version 3.	
THAILAND	BBIS/BIS Routers already implemented. AMHS has been implemented in July 2011. Trial with other BBIS States; Singapore, India, Hong Kong China and Italy are ongoing. Pre-operational test (POT) with India and Singapore in 2013, with Hong Kong China in May 2014, with Italy in August 2014, with Laos PDR and Malaysia over VSAT IP link conducted in 2014. Inter-Operability Test (IOT) with Bangladesh in May 2014, with Beijing China planned for 2014 and with Vietnam and Myanmar planned for 2015. Connected with Cambodia (CATS) AMHS on 10 December 2013 over VSAT IP link; Established new CLNP 64 Kbps link with AAI In June 2013 following successful IOT; Established CLNP 64 Kbps link with CAAS in July 2013 following successful IOT. Operational the AMHS service with target date within Q4 2014; Established CLNP 64Kbps with Hong Kong China CAD in May 2014, POT is scheduled for Q2 2014.	AEROTHAI's AMHS System / Ubitech System	Plan for coordination with neighboring ACCs from 2015. Plan for implementation starting from 2016.	THALES which is being implemented with planned completion in November 2015. AIDC feature is based on APAC AIDC ICD V.3	

State/Organization	ATN G/G Boundary Intermediate System (BIS) Router/AMHS	AMHS Vendors Selected	AIDC	ATM System selected to support AIDC and Associated ICD (Implementation Status of the Basic 5 message set supported)	Remarks
TONGA	AMHS planned for 2008. The provider is linked to the New Zealand AFTN				CPDLC and ADS-C is not considered for lower airspace
UNITED STATES	AMHS implemented. (Salt Lake City & Atlanta). Transition using AMHS when counter parts ready	IN-HOUSE	AFTN based AIDC implemented.	IN-HOUSE which is able to support APAC and NAT ICDs currently Version 2.	
VANUATU					
VIET NAM	BIS Routers planned for 2009. ATN/AMHS trial in 2010 and operation in 2012. ATN BIS Router AMHS in 2013	IN-HOUSE	AFTN based AIDC implemented in 2009. Operational with Singapore in April 2014. Plan for trials with Lao. PDR. Cambodia, Malaysia 1Q 2015.		

LIST OF ACTION ITEMS FOR ASIA/PAC AIDC TASK FORCE

a)   By December 2015, members States/Administrations of the Task Force to provide identified ISSUES for sharing/learning by filling in AIDC Issues Form which is attached to the meeting Report (simplified based on the one provided by Sri Lanka at AIDC Seminar);

        ACTION BY: ALL Member States/Administrations and to be consolidated by ICAO Regional Office

b)   January to June 2016 for each group of common issues, identify in 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

c)   By January 2016, develop the first cut of Draft AIDC Implementation Guidance Material; (follow up Decision of APA TF/1 meeting report);

        ACTION BY: Small ad hoc Working Group

d)   Conduct a survey which message set that ANSP would like to implement of PAN ICD for AIDC   by end 2018. (Based on a draft Conclusion being formulated by the Task Force)

        ACTION BY: ICAO Regional Office

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**First Meeting of the Asia/Pacific ATS Inter-Facility Data Link (AIDC)
Communication Implementation Task Force (APA TF/1)**

(Bangkok, Thailand 16 – 18 June 2015)

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International Civil Aviation Organization

THE FIRST MEETING OF ASIA/PACIFIC ATS INTER-FACILITY DATA-LINK COMMUNICATION (AIDC) IMPLEMENTATION TASK FORCE (APA TF/1) OF APANPIRG

Bangkok, Thailand, 16 -18 June 2015

LIST OF WORKING, INFORMATION PAPERS AND PRESENTATIONS

WP/ & IP/No.	Agenda	Subject	Presented by
WORKING PAPERS			
WP/1	-	Provisional Agenda	Secretariat
WP/2	3	Outcome of APANPIRG/25 on AIDC	Secretariat
WP/3	3	Review Outcome of AIDC Seminar and AIDC Issues and Recommendations	Secretariat
WP/4	8	AIDC Implementation between Ujung Pandang ATSC & Brisbane ATSC	Indonesia
WP/5	6	Review APAC FASID Table CNS 1E	Secretariat
WP/6	4	ATS Inter-facility Data Communication (AIDC) implementation in India & with Adjacent ATS Units in the Sub-region and the issues thereof	India
WP/7	8	Progress of AIDC Implementation	Singapore
WP/8	8	AMHS and AIDC Implementation Status in APAC Region	Secretariat
INFORMATION PAPERS			
IP/1	-	Meeting Bulletin	Secretariat
IP/2	8	The AIDC Implementation Readiness in Jakarta ATSC	Indonesia
IP/3	7	Updates on the Status of PAN Regional ICD for AIDC	Secretariat
IP/4	8	ATS Inter-facility Data Communication (AIDC) Implementation in Malaysia with Adjacent ATS units	Malaysia
IP/5	8	AIDC Implementation Status of Sri Lanka	Sri Lanka

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