



# ICAO

International Civil Aviation Organization

**THIRTEENTH MEETING OF THE AERONAUTICAL  
COMMUNICATION SERVICES IMPLEMENTATION  
COORDINATION GROUP (ACSICG/13)**

Nadi, Fiji, 21 to 24 April 2026

- Agenda Item 5: AMHS to SWIM Transition Roadmap  
5.4 Consideration of AMHS readiness as part of IWXXM implementation\*

## REVIEW OF ASIA AND PACIFIC REGION IWXXM IMPLEMENTATION STATUS/ READINESS

(Presented by the Secretariat)

### SUMMARY

This paper updates the IWXXM implementation status and the Asia/Pacific Region's readiness to fully implement IWXXM data exchange.

## 1. INTRODUCTION

1.1 To meet the requirements of Amendment 79 to Annex 3, IWXXM Version 3 shall be exchanged on operational networks from 20 July 2020. Due to the pandemic, ICAO postponed the exchange of IWXXM data to 5 November 2021.

1.2 To date, many APAC States/ Administrations have made good progress and started exchanging IWXXM data over AMHS operational networks. Traditional alphanumeric code (TAC) data are still being exchanged in parallel with IWXXM data.

## 2. DISCUSSION

2.1. According to the *Roadmap for Aeronautical Meteorological (MET) Information in System-Wide Information Management (SWIM), March 2025, Version 3.0*, the ICAO MET Panel (METP) intends to remove TAC as a Standard format from ICAO Annex 3. METP plans to introduce the change in Amendment 83 to ICAO Annex 3, which will become applicable in November 2027; however, an embedded date for the removal of TAC as a Standard is expected to become applicable in November 2030, providing States and other aviation stakeholders a formal three-year lead-time to prepare for this upcoming change.

2.2. Assuming the plan above is implemented, and the ICAO Council adopts Amendment 83 to ICAO Annex 3 as proposed above, TAC will no longer be a Standard format in Annex 3 from November 2030.

2.3. The roadmap envisages that, after November 2030, global information exchange will no longer include TAC information over AFTN (or AMHS Basic service connections). Consumers of TAC information must have transitioned toward utilizing IWXXM. Existing exchange mechanisms (e.g., AMHS with FTBP through NOCs, ROCs, and RODBs) will continue to provide IWXXM information from MET originators to IWXXM consumers.

2.4. MET information exchange via information services should continue and increase as initial services improve and consumers transition. States are encouraged to transition away from AMHS exchange and toward these services as more MET information becomes available via information services. Hence, the APAC Region is required to implement the full IWXXM data exchange by 2030.

2.5. To meet the 2030 timeline, the implementation of IWXXM by States/Administrations requires:

- a) AMHS with File Transfer Body Part (FTBP) and Interpersonal Messages Heading Extension (IHE), which can support the exchange of AMHS message size of a minimum of 2MB and a maximum of 4MB for FTBP; and
- b) IWXXM data is generated at the source for best implementation.

2.6. In addition to the AMHS requirements mentioned in paragraph 2.5 (a), System Wide Information Management (SWIM) with AMQP/ HTTP communications protocols is envisaged for the exchange of **IWXXM data from 2025 to 2030**. The exchange of IWXXM will then migrate fully into SWIM architecture beyond 2030.

2.7. To review the IWXXM implementation status and gauge the readiness of the APAC Region for full implementation of IWXXM data exchange, a Draft Conclusion for the Review of APAC Region IWXXM Implementation Status/ Readiness was appraised by ACSICG/11 and MET/IE WG/22 with four items under “What” Column that were submitted for CNS SG and MET SG adoption.

- (a) AMHS with FTBP/IHE and configuration for a single body part;
- (b) AMHS connection(s) will have sufficient capacity to support IWXXM exchange;
- (c) when operational, IWXXM information will be available; and
- (d) commencement of operational exchange of IWXXM with their Regional OPMET Centre (ROC) and, where applicable, their respective Inter-regional OPMET Gateway.

2.8. The CNS SG/28 Meeting deliberated on the content of the proposed draft conclusion and agreed that only items (a) and (b) above are under the purview of CNS SG, while items (c) and (d) should better be handled by MET SG. Thus, it was suggested that these two items (c) and (d) be reviewed in MET SG/28 to be held on 8-12 July 2024. Therefore, CNS SG/28 adopted the proposed Conclusion with items (a) and (b) only as follows.

<b>Conclusion CNS SG/28/01 (ACSICG/11/02) - Review of APAC Region IWXXM Implementation Status/ Readiness</b>	
What: States / Administrations provide ICAO an update on the status and readiness dates for the following: (a) AMHS with FTBP/IHE and configuration for single body part;	Expected impact: <input type="checkbox"/> Political / Global <input type="checkbox"/> Inter-regional <input type="checkbox"/> Economic

(b) AMHS connection(s) will have sufficient capacity to support IWXXM exchange;	<input type="checkbox"/> Environmental <input checked="" type="checkbox"/> Ops/Technical
Why: As per Amendment 79 to Annex 3 (applicable November 2020), States/ Administrations are required to exchange meteorological information in IWXXM form.	Follow-up: <input checked="" type="checkbox"/> Required from States
When: 05-Jul-2024	Status: Adopted by Subgroup.
Who: <input checked="" type="checkbox"/> Sub groups <input checked="" type="checkbox"/> APAC States <input checked="" type="checkbox"/> ICAO APAC RO <input type="checkbox"/> ICAO HQ <input type="checkbox"/> Other: XX	

2.9. As of CNS SG/28, 14 states/administrations provided details on their status on AMHS readiness and experience for supporting IWXXM Traffic.

2.10. As of ACSICG/12, 20 States/Administrations updated details on their status on AMHS readiness and experience for supporting IWXXM Traffic. The AMHS Readiness Table for Supporting IWXXM Traffic updated in ACSICG/12 is provided in **Appendix A**.

2.11. To better present the statistical results, the ICAO Secretariat compiles a new table by extracting selected information from the AMHS Readiness Table for Supporting IWXXM Traffic and referencing the AMHS Routing Directory Tables from the ATS Messaging Management Center (AMC) as of March 2026, which is provided in **Appendix B**. To avoid potential overload of AFTN traffic, relevant Meteorological authorities/organizations should not disseminate IWXXM messages to States/Administrations that have no active AMHS in operation.

2.12. The meeting is invited to review the new table - AMHS status and IWXXM readiness of the States/Administrations in the APAC Region and update the information contained in the Table.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper;
- b) review and update the information contained in **Appendix B**; and
- c) discuss any relevant matter as appropriate.

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AMHS Readiness Report for Supporting IWXXM Traffic

No.	States/Administration	Name of State (Administration)/name of BBIS/BIS location where AMHS is installed:	AFTN/AMHS transition date/schedule	Readiness Status of AMHS for supporting File Transfer Body Part (FTBP), the Interpersonal Message (IPM) Heading Extension (IHE) to support for exchanging IWXXM reports of a maximum size of 4MB and FTBP of maximum 2MB:	Capacity status of the operational AFS links to support the exchange of the required meteorological information in both IWXXM GML form and TAC form:
1	Afghanistan				
2	Australia	Airservices - Brisbane	<p>Completed. AMHS exchange in place with USA, Fiji, New Zealand, Singapore and South Africa.</p> <p>AFTN still in place with Indonesia and PNG, migration to AMHS based on pending readiness both partners Several Pacific island nations connecting via FCO CADAS ATS Terminal, currently over AFTN. Airservices plans to migrate to AMHS P3 CADAS but will need to provide user training.</p> <p>All domestic users and data originators still on AFTN, no desire by external partners to migrate to AMHS, awaiting SWIM instead.</p>	Full compliance and support since Nov 2020	Airservices has contracted a 2.0Mbps bandwidth using CRV Package C+ for Voice & AMHS services. Bandwidth on the leased line with South Africa / Johannesburg is also 2Mbps.
3	Bangladesh				
4	Bhutan				
5	Brunei Darussalam				
6	Cambodia				
7	China	Beijing	AMHS deployed in 2008 which was upgraded to support ATN/IPS in 2013 and upgraded to support exchanging IWXXM in 2020.	support	CRV bandwidth is 3M. Minimally 64kbps for each AMHS connection..
8	Hong Kong China	Hong Kong China	December 2009	Support	2MB for CRV and 64kbps for IPLCs
9	Macao China	Macao China	Q4/2009	Support-exchange of IWXXM-messages based on FTBP- Support	To be determined CRV bandwidth is 2M. 64kbps for each AMHS connection.

AMHS Readiness Report for Supporting IWXXM Traffic

No.	States/Administration	Name of State (Administration)/name of BBIS/BIS location where AMHS is installed:	AFTN/AMHS transition date/schedule	Readiness Status of AMHS for supporting File Transfer Body Part (FTBP), the Interpersonal Message (IPM) Heading Extension (IHE) to support for exchanging IWXXM reports of a maximum size of 4MB and FTBP of maximum 2MB:	Capacity status of the operational AFS links to support the exchange of the required meteorological information in both IWXXM GML form and TAC form:
10	Cook Islands				
11	Democratic People's Republic of Korea				
12	Fiji	Fiji Airport/Air Traffic Management Centre	Completed. In June 2019, Fiji completed the transition of ATN BBIS to IPS for the AMHS service from Nadi to Salt Lake, USA & Brisbane, Australia over the CRV network. The local end User still operates on AFTN terminal and is converted to AMHS over the AFTN/AMHS Gateway.	The Comsoft AMHS System supports File Transfer Body Part (FTBP). Our system has the capability of exchanging IWXXM reports of a maximum size of 4MB and FTBP of maximum: <b>Current AMHS supports FTBP but not the required message size up to 4.00 MB for IWXXM. Fiji is upgrading its AMHS to support exchange of IWXXM reports of a maximum size of 4MB including FTBP by 2025</b>	Nadi has contracted a 1.0Mbps bandwidth using CRV Package C+ <del>B+</del> for Voice & AMHS services. The total bandwidth usage for voice and data is 768K from the total 1.0Mbps. The bandwidth for AMHS is 64Kbps each to Brisbane & Salt Lake Center. It is noted in the ACSICG/7 WP04 presented by USA that 64Kbps is the minimum recommended required bandwidth for AMHS to exchange FTBP for IWXXM.
13	France (New Caledonia, French Polynesia, Wallis & Futuna)				
14	India	AAI/Mumbai Airport	AMHS is in operation since 2011. Note: 1. PO was awarded to Frequentis Comsoft on Jan-2023 for the replacement of existing AMHS System at Mumbai. 2. New AMHS System will be having DC at Mumbai & DR at Delhi. Subsequently second CRV connection will be implemented with at Delhi for DR AMHS Operation. 3. SDR (System Design Review) meeting with Frequentis Comsoft is planned in May 2023 4. Tentative timeline for commissioning of new AMHS System is Dec 2024.	Presently India is not able to exchange the required 4 MB messages and 2 MB FTBP attachments.	Indian Meteorological Department is in the process of upgradation of HPC & DB to support IWXXM.

**AMHS Readiness Report for Supporting IWXXM Traffic**

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15	Indonesia				
16	Japan	Japan/Fukuoka	ATN BBIS router and AMHS installed at 2000.  Connection tests with USA 2000 - 2004 and put into operational use in 2005 and over CRV in February 2019.  Put into AMHS operation with Hong- Kong and Singapore in 2021. AMHS implementation with China in 2021 , Korea and Taipei in 2022.	Already support exchange of IWXXM messages based on FTBP in August 2015.  It is possible to send , receive and transfer up to 2GB for the contents such as FTBP,IPM and IHE in AMHS,and the size of IWXXM supported system by Japan Meteorological Agency is 2MB	AFS links over CRV is a Package A, Bandwidth 2M.
17	Kiribati				
18	Lao PDR	Lao Air Navigation Services (LANS), Vientiane	AMHS has been implemented with Thailand	AMHS is able to transmit each FBTP attachment limited to 10 MBytes but never test yet	Main Link via VSAT and backup by land line but not yet connect with CRV
19	Malaysia	Malaysia   CAAM   KLATCC	Malaysian AMHS infrastructure has been commissioned in July 2019. Connection to Singapore and Bangkok has undergo IOT and POT process and completed in March 2020. Both connection has been officially operational in June 2020.	Yes. Current Malaysian AMHS software supports FTBP capability and has been handling IWXXM messages from METMALAYSIA since early 2021.	CAAM currently contracted 2 Mbps bandwidth on CRV and connection to Bangkok and Singapore is operational over CRV
20	Maldives	Maldives / Velana International Airport (VRMM)	Contract awarded to replace existing AFTN system to an AMHS in 1Q2023. Installation and commissioning of AMHS to be completed by 3Q2023	AMHS supports FTBP	Discussion with PCCW for 128k bandwidth CRV package D
21	Marshall Islands				
22	Micronesia (Federated States of )				
23	Mongolia				

AMHS Readiness Report for Supporting IWXXM Traffic					
No.	States/Administration	Name of State (Administration)/name of BBIS/BIS location where AMHS is installed:	AFTN/AMHS transition date/schedule	Readiness Status of AMHS for supporting File Transfer Body Part (FTBP), the Interpersonal Message (IPM) Heading Extension (IHE) to support for exchanging IWXXM reports of a maximum size of 4MB and FTBP of maximum 2MB:	Capacity status of the operational AFS links to support the exchange of the required meteorological information in both IWXXM GML form and TAC form:
24	Myanmar				
25	Nauru				
26	Nepal			can not support	plan to complete by 2026
27	New Zealand	Airways – Christchurch	AMHS connections are in place with Australia, USA and the New Zealand MET Service.	MET NZ is already using IWXXM data using AMHS FTBP.	Airways New Zealand has contracted a 2.0 Mbps bandwidth using CRV Package C+ for Voice and AMHS services from Auckland and Christchurch.
28	Pakistan	Karachi AMHS	Present AMHS is deployed since 2021 of the company IDS-AirNav.	The Karachi AMHS supports FTBP with a maximum capacity of 2MB. However, IWXXM exchange has not been verified, as the feature is not yet available in the AMHS system.	CRV bandwidth is 1MB and minimally 64kbps for data.
29	Palau				
30	Papua New Guinea				
31	Philippines	Philippines/ATMC Manila	Completed March 2018	Can support IHE and FTBP maximum 1MB (tested with Taipei on 13-May-20) 2MB	1MB 2MB Philippines has contracted 2Mbps bandwidth using CRV package "A" voice and data services.
32	Republic of Korea	Gimpo international airport	ATN/AMHS with China put into operational use in June, 2011. AMHS implementation with China and Japan over CRV will be in 4Q, 2022. AMHS implementation with China and Japan over CRV completed in December 2022.	AMHS implementation for supporting FTBP and IHE will be in 4Q, 2022.  Support	AFS links over CRV is a Package A, Bandwidth 2M.

AMHS Readiness Report for Supporting IWXXM Traffic					
No.	States/Administration	Name of State (Administration)/name of BBIS/BIS location where AMHS is installed:	AFTN/AMHS transition date/schedule	Readiness Status of AMHS for supporting File Transfer Body Part (FTBP), the Interpersonal Message (IPM) Heading Extension (IHE) to support for exchanging IWXXM reports of a maximum size of 4MB and FTBP of maximum 2MB:	Capacity status of the operational AFS links to support the exchange of the required meteorological information in both IWXXM GML form and TAC form:
33	Samoa				
34	Singapore	Singapore	March 2011	Yes-AMHS able to support X.400 message with FTBP and IHE up to 4MB since November 2020.	2MB for CRV and minimally 64kbps for IPLCs
35	Solomon Islands				
36	Sri Lanka		2028 Q4	Current System does not support FTBP/IHE	Planning to use 2Mbps via CRV Package D
37	Thailand	Thailand	BBIS/BIS Routers already implemented. AMHS has been implemented since July 2011. Connection with Bangladesh, Bhutan, Cambodia, China, India, Lao PDR, Myanmar, Singapore, Italy, Hong Kong China, and Malaysia and SITA has been implemented. Connection with SITA (SITA AMHS Gateway inter-connections) implemented. <b>Bangkok - Vietnam Circuit</b> is planned for end of 2Q2025 IOT Test : Done POT Test: Planned for end of 3Q2021 <b>Bangkok – Rome Circuit</b> IOT Test: Planned for 3Q2021 POT Test: Planned for 4Q2021	Completed, the IWXXM exchange has been implemented since November 2020.  Full compliance and support since Nov 2020	The capacity of links readied to support in both form.  1 Mbps for CRV and 2 Mbps for Thailand -Italy
38	Timor Leste				
39	Tonga				
40	Tuvalu				
41	USA	Federal Aviation Administration	Q4, 2020	Yes. FAA AMHS has FTBP capability. National Weather Service (NWS) projected to implement IWXXM by Q3, 2021	Yes. 2MB bandwidth over CRV

item	State/Administration	Name of State (Administration)/name of BBIS/BIS location where AMHS/AFTN is installed	AMHS	AMHS can support FTBP and IHE?	AMHS to support IWXXM	AMHS with FTBP and IHE which can support the exchange of AMHS message size of a minimum of 2MB and a maximum of 4MB for FTBP	Bandwidth for AMHS to exchange FTBP for IWXXM (Optional)	COM Centre with AMHS Routing (Optional)	COM Centre with AFTN Routing (Optional)	Additional Details (Optional)
1	Afghanistan	Kabul	Not Selected	Not Selected	Not Selected	Not Selected			OAKB - KABUL INTERNATIONAL - Afghanistan	
2	Australia	Airservices - Brisbane	Yes	Supported	Yes	Yes	Airservices has contracted a 2.0Mbps bandwidth using CRV Package C+ for Voice & AMHS services.  Bandwidth on the leased line with South Africa / Johannesburg is also 2Mbps.	YBBB - BRISBANE (FIR/FIC/ACC/COM/MET/NOF) - Australia	YBBB - BRISBANE (FIR/FIC/ACC/COM/MET/NOF) - Australia	Completed. AMHS exchange in place with USA, Fiji, New Zealand, Singapore and South Africa. AFTN still in place with Indonesia and PNG, migration to AMHS based on pending readiness both partners Several Pacific island nations connecting via FCO CADAS ATS Terminal, currently over AFTN. Airservices plans to migrate to AMHS P3 CADAS but will need to provide user training.
3	Bangladesh	Dhaka	Yes	Not Selected	Not Selected	Not Selected		VGHS - HAZRAT SHAHJALAL INTERNATIONAL AIRPORT, DHAKA - Bangladesh	VGHS - HAZRAT SHAHJALAL INTERNATIONAL AIRPORT, DHAKA - Bangladesh	
4	Bhutan	Paro	Yes	Supported	Not Selected	Not Selected		VQPR - PARO, INTL - Bhutan	VQPR - PARO, INTL - Bhutan	
5	Brunei Darussalam	Brunei	Not Selected	Not Selected	Not Selected	Not Selected			WBSB - BRUNEI/INTL - Brunei Darussalam	
6	Cambodia	Phnom Penh	Yes	Supported	Not Selected	Not Selected		VDPP - PHNOM PENH - Cambodia	VDPP - PHNOM PENH - Cambodia	
7	China	Taibei	Yes	Supported	Not Selected	Not Selected		TAOYUAN INTERNATIONAL - China	TAOYUAN INTERNATIONAL - China	
		Beijing	Yes	Supported	Yes	Yes	CRV bandwidth is 3M. Minimally 64kbps for each AMHS connection	ZBBB - BEIJING CITY - China	ZBBB - BEIJING CITY - China	AMHS deployed in 2008 which was upgraded to support ATN/IPS in 2013 and upgraded to support exchanging IWXXM in 2020.
8	Hong Kong, China	Hong Kong China	Yes	Supported	Yes	Yes	2MB for CRV and 64kbps for IPLCs	VHHH - HONG KONG/INTERNATIONAL - Hong Kong Special Administrative Region of China	VHHH - HONG KONG/INTERNATIONAL	Completed in December 2009
9	Macau China	Macao China	Yes	Supported	Yes	Yes	CRV bandwidth is 2M. 64kbps for each AMHS connection.	VMMC - MACAO/INTL AIRPORT - Macao Special Administrative Region of China	VMMC - MACAO/INTL AIRPORT	Completed in Q4 2009
10	Cook Islands	Rarotonga	Not Selected	Not Selected	Not Selected	Not Selected			NCRG - RAROTONGA INTL. - Cook Islands	
11	Democratic People's Republic of Korea	Pyongyang	Not Selected	Not Selected	Not Selected	Not Selected			ZKKK - PYONGYANG (CITY) - Democratic People's Republic of Korea	
12	Fiji	Nadi	Yes	Not Selected	Yes	Under Implementation	1.0Mbps bandwidth using CRV B+ for Voice & AMHS services. The total bandwidth usage for voice and data is 768K from the total 1.0Mbps. The bandwidth for AMHS is 64Kbps each to Brisbane & Salt Lake Center.	NFFN - NADI/INTL - Fiji	NFFN - NADI/INTL - Fiji	Completed. In June 2019, Fiji completed the transition of ATN BBIS to IPS for the AMHS service from Nadi to Salt Lake, USA & Brisbane, Australia over the CRV network. The local end User still operates on AFTN terminal and is converted to AMHS over the AFTN/AMHS Gateway.
13	France (New Caledonia)	Noumea	Not Selected	Not Selected	Not Selected	Not Selected			NWWW - NOUMEA LA TONTOUTA	
14	France (French Polynesia)	Papeete	Yes	Supported	Not Selected	Not Selected		NTAA - TAHITI FAAA - French Polynesia (France)	NTAA - TAHITI FAAA - French Polynesia (France)	
15	France (Wallis & Futuna)	Wallis Islands	Not Selected	Not Selected	Not Selected	Not Selected			NLWW - WALLIS HIHIFO - Wallis And Futuna Islands (France)	
		AAI/Mumbai Airport	Yes	Supported	No	No		VABB - CHHATRAPATI SHIVAJI INTL AIRPORT, MUMBAI - India	MAHARAJ INTERNATIONAL AIRPORT, MUMBAI India	AMHS is in operation since 2011. Note: 1. PO was awarded to Frequentis Comsoft on Jan-2023

item	State/Administration	Name of State (Administration)/name of BBIS/BIS location where AMHS/AFTN is installed	AMHS	AMHS can support FTBP and IHE?	AMHS to support IWXXM	AMHS with FTBP and IHE which can support the exchange of AMHS message size of a minimum of 2MB and a maximum of 4MB for FTBP	Bandwidth for AMHS to exchange FTBP for IWXXM (Optional)	COM Centre with AMHS Routing (Optional)	COM Centre with AFTN Routing (Optional)	Additional Details (Optional)
16	India	Kolkata/VECC	Yes	Not Selected	Not Selected	Not Selected		VECC - NETAJI SUBHASH CHANDRA BOSE INTERNATIONAL AIRPORT, KOLKATA- India	CHANDRA BOSE INTERNATIONAL AIRPORT, KOLKATA- India	For the replacement of existing AMHS System at Mumbai.  2. New AMHS System will be having DC at Mumbai & DR at Delhi. Subsequently second CRV connection will be implemented with at Delhi for DR AMHS Operation.
		VIDD/Safdarjung Airport	No	Not Applicable	Not Applicable	Not Applicable		VIDD - SAFDARJUNG - India		
		VOMM/Chennai Airport	No	Not Applicable	Not Applicable	Not Applicable		VOMM - CHENNAI INTERNATIONAL - India		
17	Indonesia	Jakarta	Yes	Not Selected	Not Selected	Not Selected		WIII - JAKARTA/SOEKARNO HATTA INTL - Indonesia	WIII - JAKARTA/SOEKARNO HATTA INTL - Indonesia	
18	Japan	Japan/Fukuoka	Yes	Not Selected	Yes	Yes	AFS links over CRV is a Package A, Bandwidth 2M.	TRAFFIC MANAGEMENT CENTRE, AFTN/AMHS COM CENTER - Japan	TRAFFIC MANAGEMENT CENTRE, AFTN/AMHS COM CENTER - Japan	ATN BBIS router and AMHS installed at 2000. Connection tests with USA 2000 - 2004 and put into operational use in 2005 and over CRV in February
19	Kiribati	Tarawa	Not Selected	Not Selected	Not Selected	Not Selected			NGTT - TARAWA/BETIO (COM) - Kiribati	
20	Lao People's Democratic Republic	Lao Air Navigation Services (LANS), Vientiane	Yes	Supported	Under Implementation	Under Implementation	Main Link via VSAT and backup by land line but not yet connect with CRV	VLVT - VIENTIANE(WATTAY) - Lao People's Democratic Republic	VLVT - VIENTIANE(WATTAY) - Lao People's Democratic Republic	AMHS has been implemented with Thailand
21	Malaysia	Malaysia   CAAM   KLATCC	Yes	Supported	Yes	Yes	2 Mbps bandwidth on CRV	WMKK - KL INTERNATIONAL/SEPANG - Malaysia (Peninsular) (Malaysia)	WBKK - KOTA KINABALU INTERNATIONAL - Malaysia WMKK - KL INTERNATIONAL/SEPANG	Malaysian AMHS infrastructure has been commissioned in July 2019. Connection to Singapore and Bangkok has undergo IOT and POT process and completed in March 2020. Both connection has been officially operational in June 2020.
22	Maldives	Maldives / Velana International Airport (VRMM)	Yes	Not Selected	Yes	Yes	Discussion with PCCW for 128k bandwidth CRV package D	VRMM - VELANA INTERNATIONAL AIRPORT - Maldives	VRMM - VELANA INTERNATIONAL AIRPORT - Maldives	Contract awarded to replace existing AFTN system to an AMHS in 1Q2023. Installation and commissioning of AMHS to be completed by 3Q2023
23	Marshall Islands	Majuro	Not Selected	Not Selected	Not Selected	Not Selected			PKMJ - MARSHALL ISLANDS/INTL MAJURO ATOLL - Marshall Islands	
24	Micronesia (Federated States of)	Chuuk Kosrae Ponapei	Not Selected	Not Selected	Not Selected	Not Selected			PTKK - WENO ISLAND ,FM CHUUK INTL. - Micronesia (Federated States of) PTPN - POHNPEI INTL,POHNPEI ISLAND - Micronesia (Federated States of) PTSA - KOSRAE,KOSRAE ISLAND - Micronesia (Federated States of) PTYA - YAP INTL,YAP ISLAND - Micronesia (Federated States of)	
25	Mongolia	Ulanbaatar	Yes	Not Selected	Not Selected	Not Selected		ZMUB - ULAANBAATAR/BUYANT-UKHAA - Mongolia	ZMUB - ULAANBAATAR/BUYANT-UKHAA - Mongolia	
26	Myanmar	Yangon	Yes	Supported	Not Selected	Not Selected		VYYY - YANGON INTERNATIONAL - Myanmar	VYYY - YANGON INTERNATIONAL - Myanmar	
27	Nauru		Not Selected	Not Selected	Not Selected	Not Selected			ANAU - NAURU FIR - Nauru	
28	Nepal	Kathmandu	Yes	Not Selected	No	Under Implementation		VNKT - KATHMANDU - Nepal	VNKT - KATHMANDU - Nepal	
29	New Zealand	Airways – Christchurch	Yes	Not Selected	Yes	Yes	2.0 Mbps bandwidth using CRV Package C+	NZCH - CHRISTCHURCH INTL - New Zealand	NIUE - NIUE INTL - Niue (New Zealand) NZCH - CHRISTCHURCH INTL - New Zealand	AMHS connections are in place with Australia, USA and the New Zealand MET Service.
30	Pakistan	Karachi AMHS	Yes	Not Selected	No	Under Implementation	CRV bandwidth is 1MB and minimally 64kbps for data.	OPKC - KARACHI/JINNAH INTERNATIONAL - Pakistan	OPKC - KARACHI/JINNAH INTERNATIONAL - Pakistan	Present AMHS is deployed since 2021 of the company IDS-AirNav.
31	Palau		Not Selected	Not Selected	Not Selected	Not Selected			PTRO - Babelthuap/Koror - Palau	

item	State/Administration	Name of State (Administration)/name of BBIS/BIS location where AMHS/AFTN is installed	AMHS	AMHS can support FTBP and IHE?	AMHS to support IWXXM	AMHS with FTBP and IHE which can support the exchange of AMHS message size of a minimum of 2MB and a maximum of 4MB for FTBP	Bandwidth for AMHS to exchange FTBP for IWXXM (Optional)	COM Centre with AMHS Routing (Optional)	COM Centre with AFTN Routing (Optional)	Additional Details (Optional)
32	Papua New Guinea		Not Selected	Not Selected	Not Selected	Not Selected			AYPM - PORT MORESBY FIR - Papua New Guinea	
33	Philippines	Philippines/ATMC Manila	Yes	Supported	Yes	Yes	2MB	RPLL - NINOY AQUINO INTERNATIONAL AIRPORT, MANILA - Philippines	RPLL - NINOY AQUINO INTERNATIONAL AIRPORT, MANILA - Philippines	Completed March 2018
34	Republic of Korea	Gimpo international airport	Yes	Not Selected	Yes	Yes	AFS links over CRV is a Package A, Bandwidth 2M.	RKSS - GIMPO INTL - Republic of Korea	RKSS - GIMPO INTL - Republic of Korea	AMHS implementation with China and Japan over CRV completed in December 2022.
35	Samoa	Faleolo	Not Selected	Not Selected	Not Selected	Not Selected			NSFA - FALEOLO/INTL - Samoa	
36	Singapore	Singapore	Yes	Supported	Yes	Yes	2MB for CRV and minimally 64kbps for IPLCs	WSSS - SINGAPORE/SINGAPORE CHANGI INTL - Singapore	WSSS - SINGAPORE/SINGAPORE CHANGI INTL - Singapore	Completed in March 2011
37	Solomon Islands		Not Selected	Not Selected	Not Selected	Not Selected			AGGG - HONIARA (FIC) - Solomon Islands	
38	Sri Lanka	Colombo	Yes	Supported	No	No	Planning to use 2Mbps via CRV Package D	VCCC - RATMALANA/COLOMBO INTERNATIONAL AIRPORT RATMALANA - Sri Lanka	VCCC - RATMALANA/COLOMBO INTERNATIONAL AIRPORT RATMALANA - Sri Lanka	Schedule in 2028 Q4
39	Thailand	Bangkok/Thailand	Yes	support	Yes	Yes	1 Mbps for CRV and 2 Mbps for Thailand -Italy	VTBB - BANGKOK (ACC/FIC/COM CENTRE) - Thailand	VTBB - BANGKOK (ACC/FIC/COM CENTRE) - Thailand	AMHS has been implemented since July 2011. Connection with Bangladesh, Bhutan, Cambodia, China, India, Lao PDR, Myanmar, Singapore,Italy, Hong Kong China, Malaysia and SITA has been implemented. Connection with SITA (SITA AMHS Gateway inter-connections) implemented. Bangkok - Vietnam Circuit is planned for end of 2Q2025
40	Timor Leste		Not Selected	Not Selected	Not Selected	Not Selected			WPDL - DILI/PRESIDENTE NICOLAU LOBATU INTERNATIONAL AIRPORT - Timor Leste	
41	Tonga	Tongatapu	Not Selected	Not Selected	Not Selected	Not Selected			NFTF - Tongatapu - Tonga	
42	Tuvalu	Faleolo	Not Selected	Not Selected	Not Selected	Not Selected			NGFF - FUNAFUTI (COM) - Tuvalu	
43	Vanuatu		Not Selected	Not Selected	Not Selected	Not Selected			NVVV - PORT VILA - Vanuatu	
44	Viet Nam	HoChiMinh/VietNam	Yes	Not Selected	Yes	Yes	CRV packet B+	VVTS - HO CHI MINH/TAN SON NHAT INTERNATIONAL - Viet Nam	NHAT INTERNATIONAL - Viet Nam VVVV - NA NOI, VIET NAM - Viet Nam	IOT with Singapore (via CRV) on April.2024. IOT with Hong Kong (via CRV) on June.2024 IOT with Manila (via CRV) on April.2024 by Testing
45	United States	Federal Aviation Administration	Yes	Supported	Yes	Yes	2MB bandwidth over CRV	KSLC - SALT LAKE CITY INTL - United States of America KATL - HARTSFIELD - JACKSON ATLANTA INTL - United States of America	NSTU - Pago Pago - American Samoa (United States)	Completed in Q4, 2020

AMHS/AFTN Routing Directory refer to Regional Routing Tables (APAC) Part II