

International Civil Aviation Organization

ICAO

**Twenty Fourth Meeting of the Communications/
Navigation and Surveillance Sub-group (CNS SG/24) of
APANPIRG**

Web-conference, 30 November – 4 December 2020

Agenda Item 3: Aeronautical Fixed Service (AFS)

- 3.2 Review the AMHS readiness status for supporting IWXXM Traffic of the States/Administrations

REVIEW OF AMHS READINESS STATUS FOR SUPPORTING IWXXM

(Presented by the Secretariat)

SUMMARY

According to Conclusion APANPIRG/28/16, States/Administration are urged to upgrade AMHS systems by November 2020. Consequently, a number of States/Administrations shared the AMHS readiness and experience for supporting IWXXM Traffic at the Seventh Meeting of the Aeronautical Communications Services (ACS) Implementation Co-ordination Group (ACSICG/7) of APANPIRG from 21 to 23 July 2020. The report of AMHS readiness from States/Administrations submitted as shown in the attachment of this paper will be reviewed.

1. INTRODUCTION

1.1 The Twenty Eighth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/28) in September 2017 through Conclusion APANPIRG/28/16: Upgrade AMHS to support IWXXM traffic urged all APAC States/Administrations to upgrade AMHS systems (AMHS server and User Agent) by November 2020 to either Extended AMHS or Basic ATS Message Handling Service plus File Transfer Body Parts sub-set of extended AMHS for Binary data exchange (FTBP) functional groups as defined in Doc 9880 Part IIB section 3.4.1.

2. DISCUSSION

2.1 The Seventh Meeting of the Aeronautical Communications Services (ACS) Implementation Co-ordination Group (ACSICG/7) of APANPIRG was held by web-conference from 21 to 23 July 2020. In the meeting, **Fiji, Indonesia, Japan, Republic of Korea, Singapore and USA** updated the meeting about the AMHS readiness report for supporting IWXXM Traffic, refer to para 2.27 – 2.49 of WP/04. The Secretariat also received additional input from 7 States/Administration via emails, including **Hong Kong, China, Macao, China, Fiji, India, Japan, Philippines and Singapore,**

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to further inform their AMHS readiness and experience for supporting IWXXM Traffic, as shown in **Attachment 1** to this working paper.

2.2. The APAC State Letter Ref.: T 8/3.5 & T 8/2.11– AP160/20 (CNS) was sent to States/Administration in August 2020 as a reminder to upgrade the AMHS with FTBP and deploy AMHS connect to achieve synchronized AMHS distribution mechanism to support MET information exchange using IWXXM in the APAC Region by November 2020. The above mentioned SL is shown in **Attachment 2** to this working paper.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) review the **Attachment 1** to this paper;
- b) States/Administration who has not yet provided the AMHS readiness are requested to submit to the secretariat; and
- c) take the appropriate action in response to the APAC SL as mentioned in para 2.2.

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	Hong Kong China	Hong Kong China	December 2009	Support	2MB for CRV and 64kbps for IPLCs
2	Macao, China	Macao China	Q4/2009	Q3/2021	To be determined
3	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.	Nadi has contracted a 1.0Mbps bandwidth using CRV Package C+ 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.
4	India	AAI/Mumbai Airport	AMHS is in operation since 2011	2MB: Mumbai AMHS is not able to receive AMHS messages with attachments, although Bangkok and Singapore sent the AMHS messages with attachment to Mumbai. India is planning a replacement of existing AMHS system within a timeframe of 2 years.	
5	Japan	Japan/Fukuoka	ATN BBIS router and AMHS installed at 2000.	Already support exchange of IWXXM messages based on FTBP in August 2015.	The viewpoint of line bandwidth, it will be 192KBps.

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:
			<p>Connection tests with USA 2000 2004 and put into operational use in 2005 and over CRV in February 2019.</p> <p>Connection tests with Hong-Kong and Singapore using AMHS/FTBP over CRV since December 2019 and testing is still on-going.</p> <p>AMHS/FTBP over CRV implementation with China in 4Q2020, and with Korea in 1Q2021</p>	It is possible to send , receive and transfer up to 2,147,483,647byte for the contents such as FTBP,IPM and IHE.	
6	Philippines	Philippines/ATMC Manila	Completed March 2018	Can support IHE and FTBP maximum 1MB (tested with Taipei on 13-May-20)	<p>1MB</p> <p>Philippines has contracted 2Mbps bandwidth using CRV package "A" voice and data services.</p>
7	Singapore	Singapore	March 2011	Yes	2MB for CRV and minimally 64kbps for IPLCs



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Ref.: T 8/3.5 & T 8/2.11– AP160/20 (CNS)

6 August 2020

Subject: Reminder for implementation of ATS Message
Handling System (AMHS) in APAC Region by 2020

Action Required: Note the ACSICG/7 outcome and implement/upgrade
AMHS to support IWXXM traffic in APAC by November 2020

Dear Sir/Madam,

I wish to remind your Administration about the requirement to support ICAO Meteorological Information Exchange Model (IWXXM) which would become a standard applicable from November 2020 by AMHS.

The Twenty Eighth Meeting of the Asia/Pacific Air Navigation Planning and Implementation Regional Group (APANPIRG/28) in September 2017 through *Conclusion APANPIRG/28/16: Upgrade AMHS to support IWXXM traffic* urged all APAC States/Administrations to upgrade AMHS systems (AMHS server and User Agent) by November 2020 to either Extended AMHS or Basic ATS Message Handling Service plus File Transfer Body Parts sub-set of extended AMHS for Binary data exchange (FTBP) functional groups as defined in Doc 9880 Part IIB section 3.4.1.

The Seventh Meeting of the Aeronautical Communications Services (ACS) Implementation Co-ordination Group (ACSICG/7) of APANPIRG was held from 21 to 23 July 2020 via video conferencing. A number of States/Administrations shared the AMHS readiness and experience for supporting IWXXM Traffic. As of July 2020, there are twenty States/Administrations in APAC Region completed the AMHS implementation, per report from the ATS Messaging Management Centre (AMC). The ACSICG/7 concludes that some of them are able to support IWXXM using their respective AMHS with FTBP capability.

In view of the foregoing, you are requested to take required actions and arrangements to implement or upgrade the AMHS with FTBP function as soon as possible, and should deploy AMHS connection with a minimum of 64Kbps bandwidth, to achieve synchronized AMHS distribution mechanism to support MET information exchange using IWXXM in the APAC Region by November of 2020.

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The CNS SG/24 to be held on 30 November 2020, will review the AMHS readiness status for supporting IWXXM Traffic of the States/Administrations.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Arun Mishra', written in a cursive style.

Arun Mishra
Regional Director