

International Civil Aviation Organization

Eleventh Meeting of the Aeronautical Communication Services Implementation Coordination Group (ACSICG/11)

Bangkok, Thailand, 19 - 22 March 2024

Agenda Item 6: Review and update the AMHS/ATN/AIDC Implementation Status

6.1 AMHS implementation Status

6.2 AIDC Implementation Status

AMHS and AIDC Implementation Status in Republic of Korea

(Presented by Republic of Korea)

SUMMARY

This paper presents the information about the AMHS and AIDC Implementation Status in Republic of Korea(ROK).

1. INTRODUCTION

- 1.1 As discussed at the 10th meeting of ACSICG in 2023, the AMHS connectivity has been successfully implemented between ROK and China(Nov. 2022), ROK and Japan (Dec. 2022) using CRV network by establishing a new AMHS(Extended version) in ROK.
- 1.2 In addition, Republic of Korea is transitioning to AIDC using CRV between adjacent ACCs in accordance with ICAO Global Navigation Plan.

2. DISCUSSION

Transition plan from AFTN to AMHS in domestic clients

- 2.1 As the connection with China and Japan was converted to AMHS/CRV in 2022, Korea has also been implementing the transition from AFTN to AMHS for domestic clients since 1Q 2024.
- 2.1.1 Currently, about 15% of domestic clients have been converted to AMHS, and all clients are expected to be converted by 2028.
- 2.1.2 When the conversion is completed, the existing AFTN will be terminated.

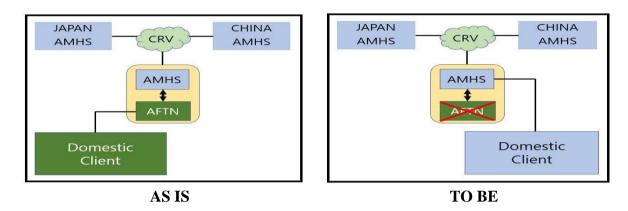


Figure 1. Transition of domestic clients from AFTN to AMHS

AIDC implementation status between countries

- 2.2 Currently, ROK is operating Incheon and Daegu ACCs within Incheon FIR using an AIDC application with Fukuoka ACC and Dalian ACC in China in Japan respectively.
- 2.2.1 Korea has implemented AIDC with adjacent ACCs as follow:

ROK ACC	Adjacent ACC	AIDC Message used	Date	Transmission means
Incheon	Fukuoka (Japan)	CPL, EST, ACP, TOC, AOC, LAM, LRM	Feb. 2024	CRV
Daegu	Dalian (China)	ABI, EST, ACP, TOC, AOC, LAM, LRM	Mar. 2021	IPLC (TCP/IP)
Incheon	Shanghai (China)	EST, ACP, TOC, AOC, LAM, LRM (planned)	planned	CRV(AMHS) (planned)

Figure 2. AIDC Implementation Status in ROK

2.2.2 The means of transmitting AIDC messages between Korea and Japan were migrated successfully from IPLC(X.25) to CRV in Feb 2024, adding XOT (X.25 over TCP/IP) routers before the CRV CE router in both Incheon and Fukuoka ACCs.

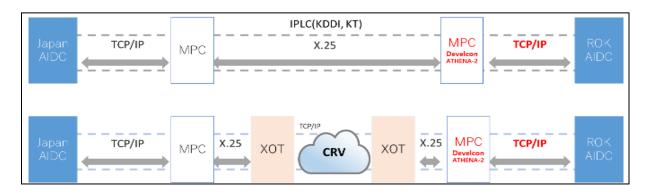


Figure 3. AIDC Dataflow between ROK and Japan

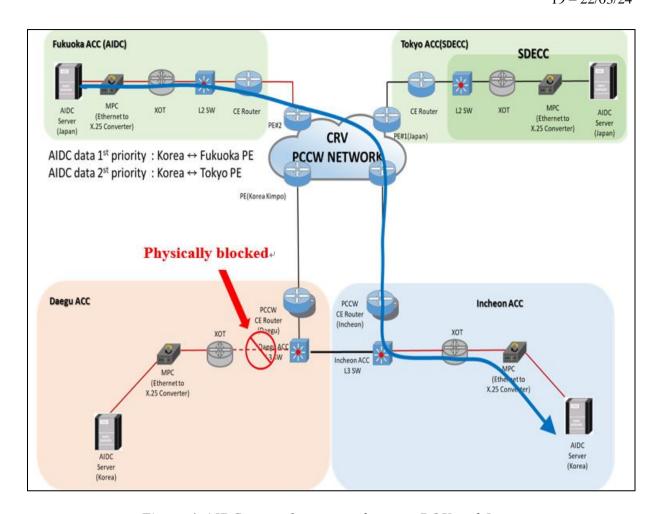


Figure 4. AIDC network structure between ROK and Japan

2.2.3 Also we are preparing to operate AIDC Between Incheon ACC in Korea and Shanghai ACC in China.

3. ACTION BY THE MEETING

- 3.1 The meeting is invited to:
 - a) note the information contained in this paper; and
 - b) discuss any relevant matter as appropriate
