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

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

AIDC IMPLEMENTATION BETWEEN UJUNG PANDANG ATSC AND BRISBANE ATSC

(Presented by Indonesia)

SUMMARY

This paper presents the AIDC implementation between Ujung Pandang ATSC and Brisbane ATSC.

AIDC messaging has been trialed between the Ujung Pandang ATSC and Brisbane ATSC. Data analysis shows that the AIDC messaging in use is successful.

1.   INTRODUCTION

1.1.   The Aviation System Block Upgrades Mapped to Performance Improvement Area 2 that is Globally Interoperable Systems and Data – Through Globally Interoperable System Wide Information Management target B0-25 as the following;

Increased Interoperability, Efficiency and Capacity through Ground-Ground Integration Supports the coordination of ground-ground data communication between ATSU based on ATS Inter-facility Data Communication (AIDC) defined in ICAO Doc 9694.

1.2.   The aim of AIDC implementation is to reduce controller's workload with minimizing voice coordination, and migration from verbal coordination to automatic data exchange which is more consistent and more accurate.

1.3.   Airservices Australia and AirNav Indonesia have been collaborating over a number of years to trial the sending of AIDC messaging between Brisbane and Makassar ATSCs. Appendix A in this paper tabulates the AIDC message exchange data. It shows exchange completion of EST-ACP and TOC-AOC.

2.   DISCUSSION

2.1.   Refer to the LOA of AIDC message exchanges between Ujung Pandang ATSC with Brisbane ATSC are EST, ACP, TOC, AOC, MAC, LAM, LRM.

    a)   EST sent automatically, 40 minutes before boundary

    b)   ACP sent automatically on receipt of EST

    c)   TOC sent automatically, 5 minutes before transfer of control point

    d)   AOC sent on controller acceptance of a hand-off proposed by receipt of a TOC (*AOC associated with end of service of the CPDLC*)

ABI & PAC message was initially exchanged by both ATSCs, but since 15 November 2012 these messages could not be exchanged because Ujung Pandang ATC system did not comply with the FPL format 2012.

2.2.   From the beginning of the AIDC trial between Ujung Pandang ATSC and Brisbane ATSC has experienced some issues, such as:

    a)   AFTN performance, causing delays in the messages delivery;

    b)   Manual activation of flight (flight data record) by Controller, before EST message is received, causing the AIDC failed;

    c)   Flight plan messages handling by Flight Data Officer (FDO), particularly updating airways (ATS route & points) in the downstream FIR;

    d)   ATM system capability, causing some AIDC messages cannot be exchanged, such as: ABI and PAC.

2.3.   Corrective measures have been implemented to fix the issues, as the following:

    a)   Propose a direct AFTN link between two ATSCs;

    b)   Train for ATC and FDO personnel to handle AIDC flights and flight plan modifications, especially crossing boundary flights;

    c)   Synchronize the ATS route & points database in both ATM systems, especially in the near boundary area.

    d)   Upgrade the ATM system to comply FPL format 2012. Will be finished in October 2015

2.4.   Based on the recent data record, the AIDC implementation trial between Ujung Pandang ATSC and Brisbane ATSC shows that the messaging in use is successful. Therefore, it will be implemented operationally by the fourth quarter of 2015.

3.   ACTION BY THE MEETING

3.1   The meeting invite to:

    a)   note the content of this working paper;

    b)   share the similar case and its solution, if any;

    c)   discuss other relevant matters as appropriate.

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Appendix A

EST-ACP Messages

MONTH *(in 2015)*	YBBB TO WAAF						
	ALL EST	EST - ACP		NO ACP		> 3 MINUTES	
JANUARY	3873	3783	**97,68%**	90	*2.32%*	16	*0.41%*
FEBRUARY	3244	3159	**97,38%**	85	*2.62%*	14	*0.43%*
MARCH	3477	3319	**95,46%**	158	*4.54%*	20	*0.58%*
APRIL	3478	3337	**95,95%**	141	*4.05%*	35	*1.01%*

MONTH *(in 2015)*	WAAF TO YBBB						
	ALL EST	EST - ACP		NO ACP		> 3 MINUTES	
JANUARY	3137	2565	**81,77%**	571	*18.20%*	36	*1.15%*
FEBRUARY	2732	2413	**88,32%**	319	*11.68%*	24	*0.88%*
MARCH	2825	2489	**88,11%**	336	*11.89%*	18	*0.64%*
APRIL	2708	2352	**86,85%**	356	*13.15%*	40	*1.48%*

TOC-AOC Messages

MONTH *(in 2015)*	YBBB TO WAAF						
	ALL TOC	TOC - AOC		NO AOC		> 3 MINUTES	
JANUARY	3843	3469	**90.27%**	374	*9.73%*	27	*0.70%*
FEBRUARY	3237	2951	**91.16%**	286	*8.84%*	14	*0.43%*
MARCH	3467	3128	**90.22%**	339	*9.78%*	31	*0.89%*
APRIL	3468	3124	**90.08%**	344	*9.92%*	44	*1.27%*

MONTH *(in 2015)*	WAAF TO YBBB						
	ALL TOC	TOC - AOC		NO AOC		> 3 MINUTES	
JANUARY	3077	2338	**75.98%**	739	*24.02%*	53	*1.72%*
FEBRUARY	2709	2226	**82.17%**	483	*17.83%*	38	*1.40%*
MARCH	2811	2294	**81.61%**	517	*18.39%*	55	*1.96%*
APRIL	2681	2167	**80.83%**	514	*19.17%*	62	*2.31%*

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