



International Civil Aviation Organization

Future Air Navigation Systems Interoperability Team-Asia (FIT-ASIA)

Bangkok, Thailand, 27 August 2012

Agenda Item 3: Review of ADS/CPDLC Operations

HO CHI MINH FIR ADS/CPDLC OPERATIONAL IMPLEMENTATION

(Presented by Vietnam)

SUMMARY

This paper presents the status of ADS/CPDLC operations within the Ho Chi Minh FIR.

This paper relates to –

Strategic Objectives:

A: *Safety – Enhance global civil aviation safety*

C: *Environmental Protection and Sustainable Development of Air Transport – Foster harmonized and economically viable development of international civil aviation that does not unduly harm the environment*

Global Plan Initiatives:

GPI-9 Situational awareness

GPI-17 Data link applications

GPI-21 Navigation systems

1. INTRODUCTION

1.1 Viet Nam has officially started providing data link services on 08 ATS/RNAV routes L625, L628, L642, M765, M768, M771, N500 and N892 in the oceanic area of the Ho Chi Minh FIR since April 10 2008.

1.2 ADS/CPDLC services are available 24/24hours per day and conducted with appropriate FAN1/A equipped aircraft of all airlines. The detailed procedures for operations have been developed basing on the Global Operational Data Link Document (GOLD).

2. OPERATION STATUS

2.1 The status of ADS/CPDLC operations:

- Based on the daily records, there are about 390 flights overflying the above ATS routes (60% having ADS/CPDLC capability).
- There are about 80 aircraft having ADS/CPDLC connection with Ho Chi Minh system because of the fact that 95% of our airspace covered by VHF voice, the aircraft prefer using voice to data link

- 2.2 Technical status:
- Ground system: There is no modification to ground system, and the system is working satisfactorily.
 - ACARs link: With dual link provided by ARINC, there is no unplanned interruption and the connection between our system and service provider's server is stable.
 - Data link transfers between Ho Chi Minh ACC and Singapore ACC have been taking place smoothly.

- 2.3 CPDLC Uplink/Downlink messages: Based on our statistic, we noted as follows:
- CPDLC Up link Performance is met the GOLD criteria.
 - Downlink messages: 95 Percentile having duration of 00:56 minutes and 99 Percentile having duration of 01:37 minutes.
 - Uplink messages: 95 Percentile having duration of 01:07 minute and 99 Percentile having duration of 02:17 minutes.
 - Normal response time (from the moment of sending uplink message until the moment of receiving a single WILCO response):
 - + 15-19 seconds = 25 %
 - + 20-25 seconds = 60%, and
 - + 25-30 seconds = 15%
 - Success rate: 99 percent.

2.4 Data link transfers between Ho Chi Minh and Singapore ACCs have been taking place smoothly and success rate is more than 90.2%.

2.5 Problem Reports: There was no problem report being received and forwarded to CRA.

2.6 Periodic Status Reports: CRA-Japan service provision has been suspended for Southeast Asia since 2011. There is no recommendation for any correction received from CRA.

Further Improvement

2.7 Further cooperation amongst ICAO, IATA, Vietnam, Singapore, Japan, the Philippines and others concerned States should be enhanced in supporting the implementation of ADS/CPDLC in the area.

- 2.8 Future actions of improvement would be required as follows:
- Maintenance of stable operation of data link.
 - Improvement of quality of data link.
 - Reduction of Uplink time and Downlink time in order to allow the improvement on ADS/CPDLC separation application.
 - Continued and enhanced CRA service provision in the area to support ADS/CPDLC operations.
 - Expansion of ADS/CPDLC operation into other FIRs in our area.

3. ACTION BY THE MEETING

4.1 The meeting is invited to note the information contained in this paper.

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