



International Civil Aviation Organization

The Fifth Meeting of the Future Air Navigation Systems Interoperability Team-Asia (FIT-Asia/5)

Bangkok, Thailand, 05 – 06 May 2016

Agenda Item 3: Review of ADS/CPDLC Operations

FEEDBACK FOR OPEN PROBLEM REPORTS OF L888 ROUTE DATA LINK PERFORMANCE IN 2015

(Presented by China)

SUMMARY

This paper presents China's feedback to the FIT-Asia meeting and the Asia Pacific CRAs for the open problem reports (PRs) of L888 route data link performance in 2015.

1. INTRODUCTION

1.1 This paper presents a feedback for the open problem reports (PRs) of L888 route data link performance in 2015.

2. DISCUSSION

2.1 Please refer to **Attachment A** for further information. China would like to have more collaboration with the FIT-Asia meeting and the Asia Pacific CRAs to resolve the identified problems of data link performance for L888 route.

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 matters as appropriate.

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Attachment A: Feedbacks for the open PRs of L888 route data link performance in 2015

Orig ID: UPS Ack-n-Toss N583UP

CRA REF: 1893-MM

Date UTC: 2015-03-23

CRA feedback to Originator:

MM 05-May-2015: The CPDLC transfer of authority from ZLLL (Lanzhou) to ZWWW (Urumqi) failed because ZLLL did not attempt to send an END SERVICE message (or at least no END SERVICE message is present in SITA's ACARS message log). Although the avionics apparently received but discarded (i.e., "acked-n-tossed") two uplinks and also experienced Iridium SATCOM problems (some downlinks via Iridium were delayed by several minutes and the avionics reverted to HFDL to send two other downlinks), these issues did not directly cause the transfer failure. The CRA has assigned this PR to CAAC for further investigation.

China feedback:

China tracked the CPDLC/ADS-C messages for this flight. Based on the analysis of these messages, China thought that: the problem was that ZLLL did not send an END SERVICE message, so that ZLLL (Lanzhou) was still the CURRENT DATA AUTHORITY, which caused the further connection to ZWWW (Urumqi) was not successful.

Orig ID: UPS-Unable to Logon ZLLL

CRA REF: 1892-AG

Date UTC: 2015-04-03

CRA feedback to Originator:

Based on SITA audit analysis (almost all data link communications were done through SITA in this case), missing AFN Acknowledgement from ZLLL causes the unable to logon situation.

Next Step: Contact CAA China to inquire the reason for missing AFN ack from ZLLL.

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China feedback:

China tracked the CPDLC/ADS-C messages for this flight. Based on the analysis of these messages, China thought that: the this flight had established successful connection with ATC unit of Lanzhou (ZLLL) and it was in the 'active flight list' in the system, but then Lanzhou received an Disconnect Request (DR1) without sending an END SERVICE message. The CPDLC connection was disconnected from the aircraft side. So when the aircraft tried to re-connect, the reconnection was ignored because that flight had already been activated before. To re-connect, the controller should delete the flight from the 'active flight list' in the system and try re-connection. If not, the following connections would fail. It is suggested that further coordination should be made to review this function.