



International Civil Aviation Organization

**The Fourth Meeting of the Bay of Bengal Reduced Horizontal Separation
Implementation Task Force (BOB-RHS/TF/4)**

Bangkok, Thailand, 18 to 22 October 2010

Agenda Item 4: Safety Analysis and Airspace Monitoring Issues

**REPORT ON IN-SERVICE PROBLEMS REPORTED TO
THE CENTRAL REPORTING AGENCY**

(Presented by the Central Reporting Agency)

SUMMARY

This paper reports on CRA investigations of problems reported by operators and Air Navigation Service Providers since the last FIT BoB meeting. Some of these problems require further action by stakeholders, and the FIT Bob is encouraged to ask those stakeholders to take the necessary actions.

1. INTRODUCTION

1.1 The Bay of Bengal Central Reporting Agency (CRA) has been investigating reports from operators and Air Navigation Service Providers (ANSPs), relating to issues with datalink operations in the NAT region. In addition the CRA has conducted several “bench tests” with ANSPs within the region.

1.2 These reports are summarized at Appendix A.

2. DISCUSSION

2.1 Since the last FIT BoB meeting in Bangkok in February 2010, “some” ANSPs and operators continue to send in problem reports relating to issues with CPDLC and ADS-C which have been investigated by the CRA.

2.2 Additionally the CRA investigated problem report in other regions that the CRA believes should be shared with BoB stakeholders. One report concerns the different actions by the communication service providers in response to receiving a downlink message from an airplane that is not a customer. One service provider acknowledges the message and discards it, while the other does not acknowledge it, and it will eventually be retried on SATCOM. The issue with the former approach is that a flight crew will believe they have sent a CPDLC message, when in fact it has been discarded. This results in having a one-way CPDLC communication channel. The FIT BoB stakeholders should consider the implications of this.

2.3 Another report concerns a service provider problem that resulted in messages from the other service provider not being delivered to one or more ANSP. The service provider indicated that unspecified “corrective measures” had been put in place to prevent a recurrence, leaving open the issue of why they had not identified the problem until contacted by the CRA some days after the event. That too is something that should be considered by the FIT BoB stakeholders.

2.4 Yet another report related to the other service provider’s gateway having intermittent problems. The service provider switched over to the back-up system to mitigate the problem several hours later, but no indication of degraded capability was provided to users. That should also be considered by the FIT BoB stakeholders.

3 CONCLUSION

3.1 Reports have been received by the CRA from some ANSPs and a single operator in the region. It is unlikely that those are the only ANSPs and or operators experiencing problems within the region. Timely reporting of problems from both ANSPs and Operators in the region is the most efficient way to improve the operational capability within the region. In some cases stakeholders continue to save problem reports for an entire month and then send them to the CRA. This makes problem report investigation difficult and in some cases does not allow the CRA to investigate the reported problem.

3.2 Stakeholders are encouraged to submit problem reports to the CRA in a timely manner as described in section appendix D section 2 of the GOLD.

4 ACTION BY THE MEETING

4.1 The meeting is invited to:

- a) note the information in this paper;
- b) encourage reporting of operations problems relating to only FANS 1/A CPDLC and ADS-C problems by “all” FIT BoB stakeholders per the guidance outlined in Appendix D of the GOLD.

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Boeing CRA Problem Report

FANS Interoperability Test

- Interoperability test performed between ATC Centers and Boeing
 - April 15th – Maldives
 - April 27th – Jakarta
 - April 29th – Kuala Lumpur/Chennai
 - Sept 9th – Chennai/Kuala Lumpur
 - Oct 7th – Chennai/Kuala Lumpur

Issues Found from Interop Tests

- Invalid ADS Event Contracts
- Invalid CPDLC uplinks
- No AFN Ack
- Invalid AFN Ack
- Failed to transfer due difference between Facility Ident in NDA and Connection Request
- Failed to transfer due to early termination

Problem report 052/10

- AS PER AFN WINDOW ALK886 CONNECTED TO ADS/CPDLC. BUT NO ADS TRACK APPEARED ON SDD AND AS PER THE AIRCRAFT “CPDLC NOT CONNECTED”
 - The AC dropped ADS and CPDLC connection after 16 minutes in no comm. Once the comm was available, the AC tried to Logon again but the ground ignored the logon.

Problem report 055/10

- CONNECTED TO ADS/CPDLC. LEVEL OF ADS TRACK WAS NOT GETTING UPDATED EVEN AFTER GIVING DEMAND REQUEST
 - Aircraft changed level 20 minutes prior to the Demand Request. There was no report to be sent per the current contracts.
 - Demand report included the updated level.

Problem Report 056/10

- CONNECTED TO ADS/CPDLC. LEVEL OF ADS TRACK WAS NOT GETTING UPDATED EVEN AFTER GIVING DEMAND REQUEST
 - Aircraft reported new level prior to the On Demand and after the On Demand.

Problem Report 051/10

- CONNECTED TO ADS/CPDLC. ADS TRACK APPEARED ON SDD 60NM EAST OF CHENNAI, SUDDENLY ADS TRACK DISAPPEARED AND RE-APPEARED 40NM WEST OF CHENNAI
 - Flight plan modification was made which changed the active waypoint and the next +1.