Twenty Second Meeting of the
Informal South Pacific ATS Co-ordinating Group (ISPACG/22)

Papeete, Tahiti, 11-12 March 2008

Agenda Item 4 CRA Problem Report review

Embedded Network Acknowledgements in CPDLC Uplinks

Presented by Airbus

SUMMARY

Network acknowledgements Embedded in some CPDLC uplinks are not decoded by Airbus FANS A avionics. This paper provides a technical description of the issue and recommendations to avoid it.

1. INTRODUCTION

1.1 Problem reports involving Airbus aircraft issued over the NAT:
Downlink CPDLC messages remain in the open status, i.e. stuck in "SENDING" mode, in the cockpit even though the controller's response is received on board. This is confusing for the crews. The reason is that the Airbus FANS A avionics does not read the DSP network acknowledgement.

1.2 The issue exhibits with automatic responses to CPDLC (FANS A) and Oceanic Clearance downlinks (FANS A+), that are sent very fast by ground systems, causing insertion of the network technical acknowledgement into the CPDLC uplink by the DSPs.

1.3 It has been observed with :
- CPDLC STBY response sent automatically by some NAT ATSP systems
- Oceanic Clearances readback confirmation uplink sent automatically by OCL ground servers.

2. DISCUSSION

2.1 The issue is being resolved thanks to the implementation by NAT ATSPs of a 5 seconds timer for issuance of automatic replies, which is enough for ground networks to send the network acknowledgement separately from the CPDLC and OCL uplinks.

2.2 FANS A+ avionics is able to extract the embedded acknowledgement in CPDLC uplinks, not in Oceanic clearances. This will be resolved in future avionics.

3. ACTION BY THE MEETING

The meeting is invited to take the above information into account if implementing automatic CPDLC responses.