



International Civil Aviation Organization

**Seventh Meeting of CNS/MET Sub-Group of APANPIRG and
Tenth Meeting of CNS/ATM IC Sub-Group of APANPIRG**

Bangkok, Thailand, 15 – 21 July 2003

Agenda item 13: Review developments, research, trial and demonstration relating to CNS/ATM

CONTROLLER-PILOT DATA LINK COMMUNICATIONS (CPDLC)

(Presented by the United States of America)

SUMMARY

CPDLC provides an additional means of communication between pilots and air traffic controllers. It was implemented at the Miami ARTCC in October 2002. Recently the FAA deferred nationwide deployment as a basic business decision not an indictment of the technology or its usefulness.

1. BACKGROUND

1.1 Controller-Pilot Data Link Communications (CPDLC) is an air-to-ground data communications capability using the ICAO Aeronautical Telecommunications Network (ATN). It provides an additional means of communications between pilots and air traffic controllers that increases the efficiency of the voice channels by reducing congestion and reduces misunderstood instructions and readback errors.

1.2 CPDLC Build 1 was implemented at the Miami air route traffic control center (ARTCC) in October 2002 and provided four operational services: transfer of communications, initial contact, altimeter setting, and menu text. Some 20,000 messages have been sent since the Miami trials began. American Airlines was the launch airline and has about 22 aircraft equipped and taking part in the program.

2. DISCUSSION

2.1 The scope of CPDLC Build 1 phase has only one ARTCC deployed. It was planned to expand to eight ARTCCs CPDLC with Build 1A by expanding the CPDLC operation to seven additional ARTCCs and upgrading the CPDLC equipment at the Miami ARTCC. This also included five additional services; altitude, speed and heading assignment, route clearance and pilot initiated downlink altitude request message sets. The maximum number of CPDLC equipped aircraft per ARTCC in operation at any time was estimated initially to be 200 in the 2005-2008 time frame and 400 for 2009 and beyond. Build 1A implementation was to occur in the 2004-2006 timeframe with all eight ARTCCs having CPDLC operations by the end of 2006.

2.2 At the present time the CPDLC program, Build 1A and beyond, has been suspended indefinitely. Although there have been promising results, the current budget constraints within the FAA, the events of September 11, 2001 and the economic challenges facing aviation are the reasons for this decision.

3. CONCLUSION

The meeting is invited to review the information provided in this paper.