INTERNATIONAL CIVIL AVIATION ORGANIZATION

ASSEMBLY — 35TH SESSION

TECHNICAL COMMISSION

Agenda Item 23:   Consolidated statement of continuing ICAO polices and practices related to communications, navigation, and surveillance/air traffic management (CNS/ATM) systems.

THE INTRODUCTION OF D-PDC/D-ATIS SERVICE USING ACARS IN THE REPUBLIC OF KOREA

(Presented by the Republic of Korea)

INFORMATION PAPER

SUMMARY

This document describes the current operational status and future plan for the D-PDC/D-ATIS services in the Republic of Korea (ROK).

1. **INTRODUCTION**

1.1   As a part of the CNS/ATM implementation plan, the Datalink-Pre Departure Clearance (D-PDC) and Datalink-Automatic Terminal Information System(D-ATIS) have been in service at Gimpo International Airport since December 2001 and at Incheon International Airport since May 2003 in the Republic of Korea(ROK). In the meantime, according to the expansion plan of the D-PDC/D-ATIS system to major 5 airports in ROK, these systems which were installed in 2003 had undergone trial for 6 months and have been successfully operating since 1 July 2004.

2. **INSTALLATION AND OPERATION**

2.1   According to ICAO's recommendation, D-PDC/D-ATIS using ACARS, which was developed by the Civil Aviation Safety Authority (CASA) of ROK in 1998 and 1999, respectively, is providing data link communication to bolster the operational safety of the aircraft and to use the frequency, allocated by ICAO, more efficiently in ROK. This project was completed in December 2001, and the D-PDC/D-ATIS system has been successfully operated at Gimpo International Airport.

2.2   As shown in the following Table 1, the number of the D-PDC/D-ATIS requests has been increased since it provides convenience and reliability to air traffic controllers and pilots;

(Unit : Number of request)

Year	D-PDC	D-ATIS	Remark
2001	8,946	12,203	
2002	12,020	33,909	
2003	22,190	50,193	
2004	13,369	30,622	by June 2004

Table-1. Number of the D-PDC/D-ATIS requests at Gimpo

2.3   As the number of aircraft equipped with ACARS had been increasing continuously and the more airports had required the expansion of the use of the D-PDC/D-ATIS system, CASA set a plan to expand the D-PDC/D-ATIS system to regional airports and complete the expansion of these systems as following Table-2;

Airport		D-PDC	D-ATIS
International	Incheon	○	○
	Gimpo	○	○
	Jeju	○	○
	Gimhae	X	○
	Daegu	X	○
	Gwangju	X	○
Domestic	Ulsan	○	○

Table-2. Expansion plan of D-PDC/D-ATIS

2.4   In addition, the D-PDC/D-ATIS system was independently developed with domestic technologies in compliance with ICAO and AEEC(Airlines Electronic Engineering Committee) standards.

2.5   The D-PDC/D-ATIS systems newly installed at local airports are using communication server located in Gimpo Airport. Therefore the cost for installation and operation of new systems has been significantly reduced. The following Table-3 shows the number of D-PDC/D-ATIS requests of local airports.

(Unit : Number of request)

Airport	D-PDC	D-ATIS	Remark
Gimhae	-	12,400	From January to June 2004
Jeju	8,115	19,571	
Daegu	-	6,991	
Gwangju	-	4,816	
Ulsan	59	4,936	After June 2004
Total	8,174	48,714	

Table-3 Number of the D-PDC/D-ATIS requests at other Airports

2.6   Figure-1 shows the console of the D-PDC installed at Jeju International Airport, and Figure-2 depicts the configuration of the D-PDC/D-ATIS system.

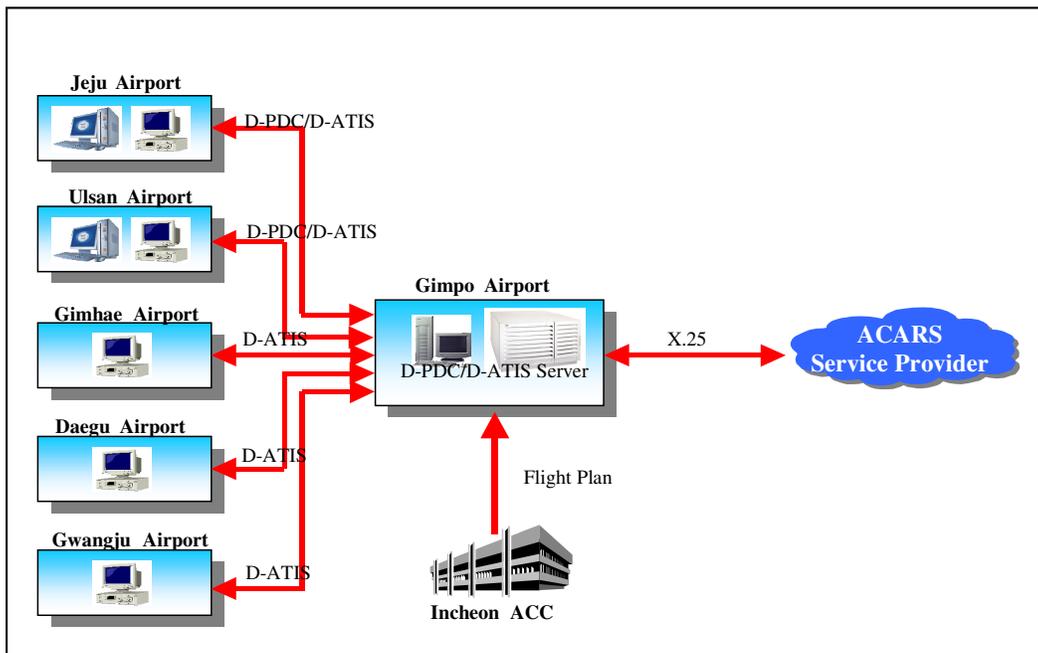**Figure-1. Console of the D-PDC system**

Figure-2. Configuration of the D-PDC/D-ATIS systems

3.   **FUTURE PLAN**

3.1   CASA has an intention to improve the existing D-PDC/D-ATIS system based on ACARS so that VDL Mode-2 can be available in these systems, and is considering expansion of the system to all of 16 airports in ROK.

4.   **CONCLUSION**

4.1   The D-PDC/D-ATIS system using ACARS will facilitate implementation of new CNS/ATM, and these activities will contribute to the improvement of safety and efficiency of air transportation.
4.1

5.   **ACTION BY THE ASSEMBLY**

5.1   The Assembly is invited to note the information described in this paper.