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NACC/DCA/2-WP/35

Agenda Item 3:

Air Navigation Services 3.1 CNS/ATM

ATIS-DATIS SYSTEM

(Presented by COCESNA)

SUMMARY

In this working paper a description of the ATIS - DATIS system development by COCENSA is presented, and as this development involves the continuous integration of the systems in the ATM field, optimization of resources, high availability, open architecture and friendly men machine interfaces.

1. Introduction

1.1 The current and real-time aeronautical information is essential for operations and for air navigation, particularly the meteorological information and active NOTAMs in the approach and landing phases. They are also important for the coordination and development of air services. One of the systems providing this type of service to aircraft is the ATIS systems (Automatic Terminal Information Service).

1.2 The ATIS transmissions are used at airports to notify landing and take-off aircraft of current local atmospheric conditions, runway conditions communications frequencies and any other important information.

1.3 These transmissions are updated each time meteorological or runway conditions change. The ATIS transmissions are used by most of the airports, the operation frequency could be found in the aeronautical charts close to the airport symbol. If there is an ATIS system, the operation frequency is close to the word ATIS.

1.4 Based on operational and technical requirements and in compliance with the corresponding standards, COCESNA has developed an automated ATIS system, which is integrated by all other database management systems that COCESNA has developed such as the AIS system, billing, flight plans and radar data processing, AIS/MET, etc.

1.5 Currently COCESNA is implementing the automated ATIS system in all international airports in the Central American region.

2. Background

2.1 ATIS is defined as "The continue transmission of NON-CONTROL recorded information in some terminals. Its purpose is to improve the performance of air controllers and the de-congestion of frequencies by automating routine essential information transmissions".

2.2 At present the ATIS system developed by COCESNA has been operationally proved and accepted by the DCA of Costa Rica. The installation at the Juan Santamaria Airport was completed in September 2005.

3. Functional Description of the ATIS System

3.1 COCESNA's ATIS System (Automatic Terminal Information System) offers the analysis, preparation, correction and broadcasting of ATIS-voice messages (valid and real time aeronautical and meteorological information) to arriving and departing aircraft. Moreover this system is designed to allow its configuration, adjustment and personalization to the required operative environment, always in compliance with the ICAO standards and the international associated rules.

3.2 The ATIS system developed by COCESNA has the following functions:

- Recording and insertion of messages
- Search and correction
- Storage
- Management
- Recording
- Statistic
- Monitoring and supervision
- Access control
- AFTN connection
- On-line assistance

3.3 System Specifications

- 3.3.1 The ATIS system complies with the following technical specifications:
 - a) The system complies with the standards and recommendations in Chapter 4 of ICAO Annex 11 Air Traffic Services and regarding aeronautical communications as indicated in ICAO Annex 10.
 - b) The purpose of the system developed is to carry-out voice broadcasts of the automatic information service (ATIS-voice) at selected aerodromes.
 - c) The ATIS messages are simultaneously, alternately or selectively broadcasted in English and Spanish, this being a configurable parameter.
 - d) The system is developed with interfaces that dynamically adapt to the user's selected language.

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- f) The system, in addition to generating ATIS-voice files, has the capability of generating D-ATIS information that can be broadcasted through data electronic means such as the AFTN or Data Link.
- g) The information provided refers only to one aerodrome, with 24-hour availability. These parameters can be reconfigured.
- h) The system is computer based, automating meteorological information acquisition, voice message generation and ATIS information allocation.

3.4 System Output

- 3.4.1 The ATIS system complies with the following output specifications:
 - Data processing speed: Message generation does not exceed 30 seconds.
 - High storage capacity.
 - Minimum time of total system recovery.

3.4.2 Network management:

- Management is decentralized, also local and remote monitoring is available.
- From the monitoring and control positions all system configurations and parameters can be accessed.

4. System Design Advantages

4.1 This system digital and modular design has allowed the automatic messages processing and its full integration with COCESNA ATM system database.

4.2 This ATIS system as all other systems developed by COCESNA is fully compatible and can be integrated to other ATM automated systems.

5. Action Suggested

- 5.1 The Meeting is invited to:
 - a) take note of the information provided in this working paper; and
 - b) adopt this ATIS system within the ATS units of each State of the CAR Region in accordance with Administration needs.