



*International Civil Aviation Organization*

**MIDANPIRG CNS/ATM/IC Sub-Group  
(CNS/ATM/IC SG)**

**Sixth Meeting  
(Cairo, Egypt, 31 January – 02 February 2012)**

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**Agenda Item 5: Regional Air Navigation Planning and Implementation Issues**

**THE LATEST DEVELOPMENTS OF CNS/ATM SYSTEMS IN JORDAN**

*(Presented by Jordan)*

**SUMMARY**

This information paper provides the meeting with the latest developments related to CNS/ATM in Jordan.

Action by the meeting is at paragraph 6.

**1. Introduction**

- 1.1 It is clear that to safely and efficiently accommodate the increase in air traffic demand—as well as respond to the diversified needs of operators, the environment and other inherent issues—it is necessary to renovate CNS/ATM systems, providing the greatest operational and performance benefits. This renovation must be harmonized to achieve seamless global air navigation into the future.
- 1.2 Jordan has recently doubled its efforts for meeting the global needs for airspace interoperability, harmonization, and modernization while sustaining its focus on safety by renovation most of its current CNS/ATM systems.

**2. The new Jordanian Surveillance and Radar Control System**

- 2.1 As a step towards the modernization of Jordan's Air Traffic Control systems and to safely and efficiently accommodate air traffic growth, a new Surveillance and Radar Control System supplied by INDRA has been installed in 2011 at Queen Alia International Airport expected to become fully operational in the first quarter of 2012.
- 2.2 The new Radar Control System has been divided into five sectors; Approach Amman, Approach Aqaba, West Sector, Upper East Sector, and Lower East Sector. The new sectors Upper East Sector & Aqaba Approach sector have been introduced to tackle air traffic that exceeds 34,000 feet and to control air traffic for Aqaba area through Radar Control Center respectively.

- 2.3 The new Radar Control supports different interfaces, ATN and Data Link applications such as (OLDI/AIDC, CPDLC, Multi-lateration, ADS-B). Furthermore, it supports six PDS registers, Standard & Extended Length Communications ( Comm A, Comm B, Comm C, and Comm D ) with a coverage up to 256 nm.
- 2.4 Additionally, Indra has installed a simulation system for air traffic controllers' training at Amman Airport. The system is equipped with three sector control units and one pseudo-pilot position.

### **3. The new Voice Communication System (VCS) & Automatic Terminal Information Service (ATIS)**

- 3.1 A new VCS system has been recently installed for the ATC tower & ACC at Queen Alia International Airport and another one will be installed for the Amman ACC within the current year.
- 3.2 A new Automatic Terminal Information Service (ATIS) was installed for broadcasting weather information once every hour according to ICAO recommendation. It supports Digital Automatic Terminal Information Service (D-ATIS).
- 3.3 A new Meteorological System has been installed at Queen Alia International Airport to provide Air Traffic Controllers with continuous readings such as wind speed, wind direction, QNH, Cloud base, Temperature, Dew point and Runway Visual Range (RVR). Moreover, the current MET System at King Hussein Airport & Amman Marka Airport will be upgraded .

### **4. Automatic Dependent Surveillance - Broadcast (ADS-B)**

- 4.1 Jordan intends to install, on a turn key basis, an ADS-B system with minimum 200 NM coverage and associated equipment for the coverage of relevant areas of the airspace of the Hashemite Kingdom of Jordan. The ADS-B system is designed to support and enhance Air Traffic Services in both En-route and TMA airspaces which are currently without Radar surveillance by ADS-B as sole surveillance means. The installation and operation of the Radar Surveillance System ADS-B will be for Queen Alia International Airport, Amman Civil Airport, and King Hussein International Airport.
- 4.2 The introduction of ADS-B in Non-Radar areas will provide enhancements to these services (compared to current capabilities) in a way similar to the introduction of single Mode A/C secondary surveillance radar (SSR) as sole surveillance means.

### **5. ICAO New FPL**

- 5.1 Jordan Civil aviation regulatory Commission (CARC) has procured the needed hardware and software to facilitate the conversion from new to present FPL format before the applicability date. The intended software and hardware will be delivered in the first quarter of the current year.

- 5.2 The new Surveillance and Radar Control System supplied by INDRA supports the present and the new flight plan format .Furthermore a Flight Plan Converter will be implemented for the old Radar Control system supplied by THALES.

**6. Action by the Meeting**

The meeting is invited to note the information in this information paper.

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