

# INDRA'S ADVANCED AUTOMATION SYSTEM FOR KUWAIT



Cityscape from Kuwait Towers

## INDRA WILL PROVIDE ONE OF THE MOST ADVANCED AIR TRAFFIC MANAGEMENT SYSTEMS IN KUWAIT

### Indra Sistemas, S.A. continues its rise in the Air Traffic Management Market in the Gulf Region

The Directorate General of Civil Aviation (DGCA) of State of Kuwait is proceeding with a significant strategic modernization of their Air Traffic Management (ATM) environment.

Indra was selected as **Technological Partner** for the Design, Supply, Installation, Commissioning, Provision of Training, Maintenance Support and Warranty of ATM project at Kuwait International Airport.

#### Through this new success, Indra continues its growth in the Gulf Region.

The objective of this project is to provide a regional solution of reference for Air Traffic Management (ATM), Aeronautical Message Handling System (AMHS) and Aeronautical Information Services (AIS) Systems for Kuwait International Airport at the Operational, Training and Contingency Centres.

The new Air Traffic Management System will provide ATM and associated technologies and equipment at Kuwait International Airport.

The scope of this outstanding project consists of the supply, installation and commissioning of a high performance ATM system composed of the following subsystems:

- **One Air Traffic Management System composed of five main subsystems with more than 70 control positions covering:**
  - » APP/ACC System
  - » Aerodrome Tower Control System
  - » Ground Control System
  - » ATM Training System
  - » Aerodrome Tower Simulator
  - » ATM Contingency Centre
- Aeronautical Information Service (AIS) and AFTN/AMHS Systems
- Technical Monitoring and Control System
- Billing System
- Fully Digital CCTV solution
- Two-year warranty
- Four-year maintenance Support
- Training:
  - » Factory Training Courses
  - » On-site Training Courses

#### A System in continuous evolution

The Air Traffic Management System to be installed in Kuwait International Airport is the result of a continuous evolution towards state of the art and to fulfill international standard and operational user requirements.

**The core of the Kuwait ATM System is built around Indra's most advanced automation Air Traffic Management System**, designed to meet growth in air traffic during the next 15 years at least.

This new system integrates Indra's knowledge and experience based in the development of the most advanced ATM system for several of the most demanding airspaces in the world: Integrated Network of automation systems in Spanish Airspace (SACTA) for AENA, Maastricht UAC (MAS-UAC ACC) for EUROCONTROL, Future Generation of Flight Data Processing Systems in the United Kingdom for NATS, Very Advanced Flight Data Processing System (VAFORIT) developed for German DFS.

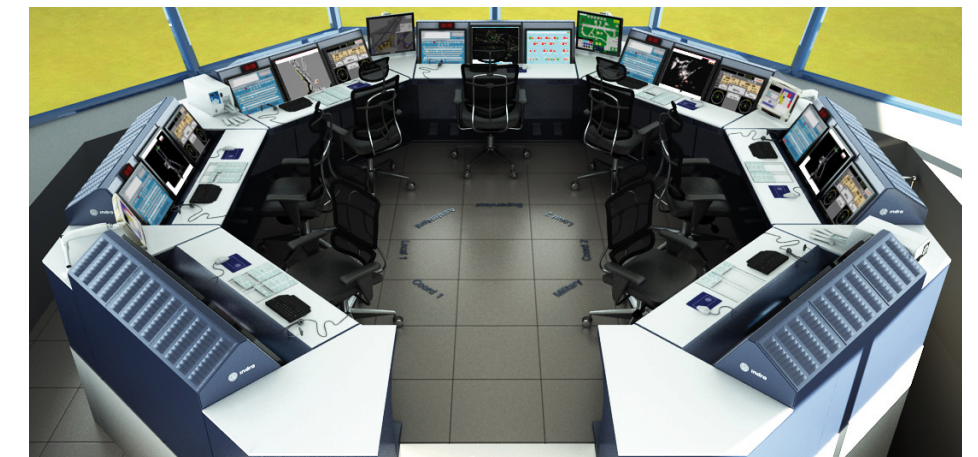
#### The next generation ATM system offers the following key benefits:

- Enhanced ATM capabilities
- Full availability and backup features
- Scalability and Upgradeability
- Easy expansion to accommodate future growth
- Centralized Monitoring system to manage all the delivered and third party systems
- Improved interoperability and safety performance
- Cost-effective provision of capacity
- Highly configurable

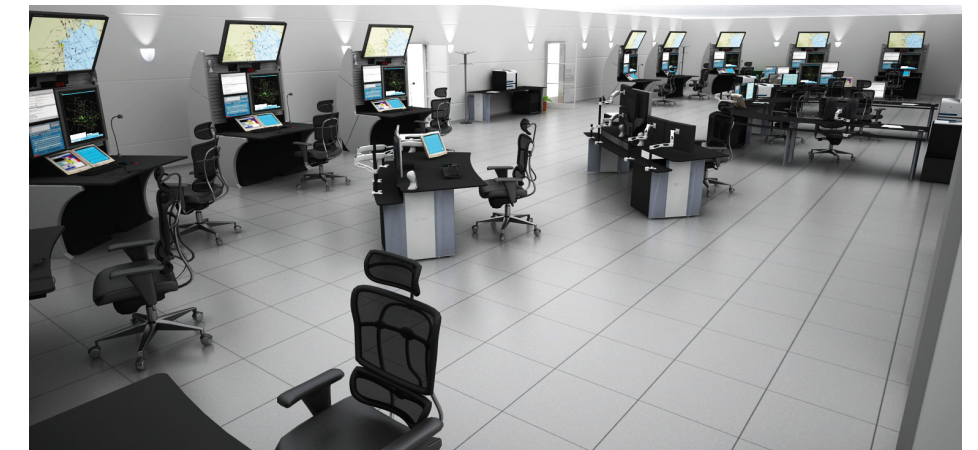
**The ATM system will provide full automation of the air traffic control and management services of combined ACC/APP/TWR centres enhancing the safety of the flights.**

In terms of management, Indra selected highly reputed professionals to ensure excellence in project delivery. Indra will provide training, smooth transition and logistic support as key services to ensure DGCA capabilities as service provider.

This project will enable DGCA to become an outstanding reference in the countries of the area using the Indra's most advanced state-of-the-art technology, profiting from Indra experience and prestige as a leading ATM company, beginning its relationship as a Supplier and ending as a long-term Partner with transference of technology.



Kuwait Control Tower simulation



Kuwait ACC simulation