

# COMPREHENSIVE AIR TRAFFIC MANAGEMENT FOR THE EL DORADO AIRPORT

MODERNIZATION OF THE EL DORADO INTERNATIONAL AIRPORT



## Context

### New air traffic management systems

Aerocivil de Colombia, the state agency in charge of controlling and regulating Colombian civil aviation, presented a tender for the installation and commissioning of the navigation communications, air traffic surveillance and management systems (CNS-ATM) for the El Dorado International Airport (Bogotá).

Indra was awarded the supply of its full range of ATM/CNS products for comprehensive management of the airport's air traffic. This includes automation, communication, surveillance and navigation aid systems for the management of in-flight and flight approach air traffic control, as well as airport ground control, a benchmark project for Latin America.

The El Dorado Airport, one of the most modern terminals in Latin America, controls air traffic management for Bogotá and manages the El Dorado Airport control tower systems.

## Air traffic management and surveillance system

Indra has implemented a control and management system for the Bogotá airspace with the following characteristics:

- Deployment of air traffic management systems in the Bogotá control center and the El Dorado Airport control tower systems with a total of 56 controller positions, of which 37 manage flight paths and approaches and 13 manage control tower operations.
- Air traffic flow management based on support tools for automatic management of take-offs and landings (AMAN and DMAN).
- Use of cutting-edge conflict prevention technology.
- The control tower also has an automated level 2 system for surveillance and guidance of aircraft ground traffic in the airport (A-SMGCS).
- Implementation of controller-pilot radio communications systems and an Instrumental Landing System (ILS, category III).
- Installation of a surface radar (SMR) in the control tower, ADS-B stations and a multilateration network that also covers approaches to the airport. These are state-of-the-art technologies that provide precise aircraft positioning information.
- Supply of GAREX voice communication systems (VCS) and the NEPTUNO and POSEIDON voice and video recorders.

### Benefits

## Reduction of costs in Colombian air traffic control

- Major savings for airlines thanks to the efficient management of the country's air traffic control.
- Significant reduction in the environmental impact of operations and compliance with the most demanding air navigation safety standards.
- Improvement in flight safety by providing controllers with reliable information on air traffic, flight plans and ground-to-air and air-to-ground data link messages.

### Results

## 25 million passengers yearly

The El Dorado International Airport is used by 25 million passengers each year, broken down as follows:

- International passengers: 7,800,000
- Domestic passengers: 6,300,000
- Air shuttle: 10,900,000

The airport serves 42 airlines, broken down as follows:

- International airlines: 21
- Domestic airlines: 6
- Airfreight carriers: 15

### Indra ATM

## Air traffic leader

Indra is a leading company in the supply of Air Traffic Management (ATM) systems. With over 95 years of experience, it has implemented more than 4,000 facilities across 160 countries. In Latin America, Indra technology is used to manage the airspace in Ecuador, Peru, Argentina, Uruguay, Paraguay, Bolivia, Colombia, Panama, Guatemala, Belize, Honduras,

El Salvador, Costa Rica and Nicaragua. In addition, the Central American Center for Higher Airspace Control (CENAMER, which belongs to the Central American Corporation for Air Navigation Services (COCESNA), also operates using our company's proprietary systems. On the other hand, the company has developed ATM projects in Brazil and Chile.

Indra has positioned itself as market leader in the supply of air traffic management and communications, navigation and surveillance systems.



**indra**

Avda. de Bruselas, 35  
28018 Alcobendas  
Madrid (Spain)  
T +34 91 480 50.00  
F +34 91 480 50.80

Indra reserves the right to modify these specifications without prior notice.