

# IBERIA AIRLINES

BARAJAS  
MADRID AIRPORT,  
SPAIN



## BACKGROUND

In 1999 Motorola was awarded a contract by Iberia Airlines, to provide a new digital communication system for Iberia Airlines at the Barajas Madrid Airport in Spain. Motorola delivered the system, in cooperation with AMPER Sistemas, Motorola's local partner and integrator.

The Barajas Madrid Airport, which is situated approximately 15km from the city centre, covers an area of about 700.000 m<sup>2</sup> and handles some 38,6 million passengers annually (Airport Statistics 2004 – preliminary figures) with a growing tendency. Presently the Airport is being expanded to compete with major hub airports within Europe.

The contract with Iberia Airlines marks the first TETRA contract in Spain for the transit segment. The system, which went live in March 2000, covers the Barajas Madrid Airport and provides advanced communication for the ground handling and airport services.

Currently 150 user groups, such as check-in desks, fuel, gates, luggage handling, catering are running on the system. The number of portable radios amount to 1.200. Currently the system supports more than 70.000 calls per day.

Motorola mainly won the project for the following reasons:

- State of Art technology demonstrated in Motorola's products
- Proven technology and technical expertise
- Motorola's flexibility to work in conjunction with AMPER Sistemas
- Understanding user needs and requirements
- Fully compliant TETRA offering, with the advantages of having a standard



## CUSTOMER NEEDS

- Digital communication suitable for handling growing passenger numbers
- Efficient, instant and reliable communication system
- Fast set-up times
- 100% coverage of the airport
- high voice quality
- high data capacity

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## MOTOROLA SOLUTION

Motorola is supplying a fully TETRA compliant Dimetra System, operating in the 410 – 430 MHz frequency band. The single site is located at the Barajas Madrid Airport. The system consists of an EBTS base station; call switching system, dispatch system, network management systems. 6 Motorola dispatch positions control the system.

With a high level of resilience, the Motorola Dimetra system provides the level of security required for airport operations. This means that if one component fails, another is immediately activated as back-up.

The Motorola Dimetra solution provides seamless communication throughout the airport. This enables call set-up anywhere at the airport, whether the groups are using the radios in open air, or inside airport buildings. Users can also roam during the call while maintaining call connection. The intensive usage of Short Data to operate plane services, has led to a significant reduction of aircraft ground time, which means relevant cost saving and at the same time improving flight punctuality.

In the near future, the system will be expanded to 4 sites, which has become necessary as a result of the planned airport expansion and the expected growing traffic. Beyond that it is planned to expand the system to further airports in Spain.



## BENEFITS

- Seamless communication throughout the airport
- Increased reliability of the system
- High voice quality – ensures that messages get through even in noisy environments
- Improved communication among airport staff
- Aircraft ground time reduction
- Punctuality improvement