

# Barcelona Airport, Spain

Providing a bird's eye view of operations at Barcelona airport



*“The Airport Management Center, where Barco plays a starring role, really is the brains of Barcelona’s Airport.”*

*Vanessa Requena, Engineering and Maintenance department*

El Prat's new 544,066m<sup>2</sup> terminal has the ambitious mission of consolidating Barcelona's position as a reference airport in the Mediterranean area and southern Europe. T1 is an extremely complex building in terms of logistics and technology: more than 100,000 passengers are scheduled to pass through it every day, served by no less than 15,000 staff. To offer airport customers the best possible travel experience, T1 is equipped with top-notch technology. With air transport constantly evolving and requiring the highest comfort and safety levels, the revamped El Prat could not do without a cutting-edge Airport Management Center.

**BARCO**

Visibly yours

"Instead of equipping the new T1 terminal with its own control room, we decided to set up a dedicated Airport Management Center that would centralize all the existing control centers into one building," explained Vanessa Requena of the Engineering and Maintenance department. "In this way, we would obtain a global overview of operations throughout the airport and allow everyone involved to easily share information live, in real time. This would help us optimize response times, actions and decisions and identify problems at the earliest possible stage."

### Bird's eye view

To achieve this bird's eye view of all operations, AENA needed a high-quality visualization solution. The Spanish company Tecosa, which is part of the Siemens Group, best met the tough requirements AENA had specified in its tender requirements for a communications contractor and included Barco in its offering. Julio Garcio Quero, project manager at Tecosa: "We could present great references in similar projects, including the successful installation of 148 rear-projection cubes in the 4,000m<sup>2</sup> control center for the T4 terminal at Madrid Barajas International airport. Barajas was a pioneer project. The experience and lessons learnt there, both with the visualization solution and with all the other communications tasks assigned to Tecosa, came in very handy in Barcelona."



### Four walls on which to view operations

And so it transpired. After a smooth integration, the Airport Management Center went live in May 2009, one month before the new terminal was due to be inaugurated. The 2,000m<sup>2</sup> ground floor is divided into four zones - network monitoring, engineering and maintenance, airport operations and aircraft services -, each with its own 70" rear-projection video wall. In the network monitoring zone, operators get a system overview of El Prat's entire data network on an 8x2 display wall, capable of showing up to 32 different streams simultaneously. The engineering and maintenance zone houses a 12x2 wall that can show up to 48 streams. Airport operations are viewed via another 12 x 2 wall, also supporting 48 streams, and a fourth video wall (8x2) visualizes apron services and T1's sophisticated baggage-handling system. "The architecture of the new control center fosters interoperability and cooperation," Vanessa Requena underlined. "So instead of sitting on four islands, operators of all four sections can easily communicate and collaborate, whenever needed."

### Security and surveillance

The same level of collaboration is achieved on the control center's second floor, which revolves around administration, security and 24/7 surveillance.

In one room a private security company watches a 50" video wall (2x5), which accommodates up to 32 streams. Similar walls were set up in a room where police officers and civil guards monitor security and in the crisis room, which is specifically equipped to monitor a developing crisis situation. In addition, the second floor houses two training rooms and two meeting rooms, which could be used as a back-up in case of incidents. When fully operational, 42 people will work on this floor.

### The nerve centre

IT and communications systems are linked to the control center via AENA's proprietary RMS local area network. In this way, control room operators can integrate info from many disparate systems across the airport, from CCTV cameras, X-ray machines and smoke detectors thru' to the electricity, air-con and heating systems. Besides viewing them on the wall, each operator has four to five desktops to monitor different applications at the same time. "This Center is where everything happening in and around the airport is controlled and management decisions are taken. Every decision is underpinned by the information displayed on the Barco video wall - from CCTV images thru' to operational KPIs. The Management Center, where Barco plays a starring role, really is the brains of our airport," Vanessa Requena concluded.

M30194-R01-0611-AN

Barco is an ISO 9001 registered company.  
The information and data given are typical for the equipment described.  
However any individual item is subject to change without any notice.  
© January 2010 by Barco

Barco nv  
Pres. Kennedypark 35, B-8500 Kortrijk  
Europe, Middle-East, Africa: +32 56 26 20 09  
USA: +1 678 475 8000  
Latin America: +55 11 38421656  
Japan: +81 3 5762 8727  
China: +86 400 88 22726  
Or mail to sales.traffic@barco.com

**BARCO**

Visibly yours

[www.barco.com/traffic](http://www.barco.com/traffic)