



Everything in view with multifocal sensor cameras

TENERIFE NORTE-CIUDAD DE LA LAGUNA AIRPORT RELIES ON VIDEO TECHNOLOGY FROM DALLMEIER



Requirement

- Detection, supervision and recording of airport operations
- Huge area
- No new infrastructure for camera mounting



High-resolution coverage

With minimum number of installation points



Easy installation

With Mountera® mounting system



Bandwidth savings

Thanks to multicast capability

Solution

- 3D simulation of the project
- Panomera® multifocal sensor systems for large areas
- Installation on existing building facades and roofs

Result

- Increased operational safety
- Optimisation of processes
- Better damage management

“No other camera system was able to cover such a large area with so few cameras and installation points at such a high resolution.”



Carlos Jesús Delgado Gómez, Head of the Director's Office at TFN



Tenerife Norte-Ciudad de La Laguna Airport has significantly improved its safety by installing state-of-the-art video technology from German manufacturer Dallmeier. The Panomera® multifocal sensor cameras are used for comprehensive monitoring of the movement area.

Major hub for domestic flights

Tenerife Norte-Ciudad de La Laguna Airport (TFN) is located about 10 kilometres west of the capital, Santa Cruz de Tenerife, in the municipality of San Cristóbal de La Laguna. It mainly handles domestic flights: connecting flights to the other Canary Islands, such as Gran Canaria or Lanzarote, as well as scheduled flights to the Spanish mainland. The main destination is Madrid-Barajas, with over one million passengers, followed by Barcelona, Seville and Bilbao.

Tender for detection, supervision and recording

In order to further increase safety at Tenerife Norte-Ciudad de La Laguna Airport and to improve airport operations, the entire movement area was to be covered. The tender documents specified the installation of a monitoring and control system to detect, supervise and record operations in that area in high resolution.

Installation sites as critical points

The total area to be monitored is huge, with the runway (with the focus at both ends), apron, taxiways and service roads adjacent to the apron. The main challenge was that it was not possible to place camera masts randomly on the movement area, so existing buildings had to be used as installation points.

“We wanted to minimise the number of installation points and camera systems to avoid the need for additional infrastructure such as masts, cabling, communication interfaces, etc., and to simplify subsequent maintenance processes”, says Carlos Jesús Delgado Gómez, Head of the Director’s Office at TFN. “And, of course, airports have strict regulations for any type of installation, especially in the movement area. That’s why there were very limited options when it came to selecting installation points. Nevertheless, the desired area had to be monitored at the highest resolution

– and the recording always had to be at maximum resolution.”

High-resolution coverage of the large areas under these conditions – a minimum number of installation points and camera systems – could not be satisfactorily achieved with conventional single-sensor cameras. Tenerife Norte-Ciudad de La Laguna Airport therefore decided to use Dallmeier’s patented Panomera® multifocal sensor technology.

“The actual installation of the **Panomera®** cameras with the **Mountera®** wall bracket and mast adapter was very easy.”

Miguel Ángel Rodríguez Domínguez,
Project Manager at Cobra Instalaciones y Servicios



The Panomera® cameras could be installed on existing building facades.



Thanks to patented multifocal sensor technology, Panomera® cameras can cover long distances with high resolution.

Maximum resolution at long distances

By combining multiple lenses and sensors with different focal lengths in a single optical unit, multifocal sensor technology offers high resolution across the entire object space. This means that even distant objects can be captured clearly, and significantly fewer systems are required overall than with conventional single-sensor cameras.

“We were able to install the Panomera® on existing building facades and roofs without any problems”, says Carlos Jesús Delgado Gómez. “No other camera system was able to cover such a large area with so few cameras and installation points at such a high resolution.”

Increasing operational safety and optimising processes

The installed video technology not only increases operational safety, but also allows processes to be optimised and disputes to be resolved quickly and clearly. One of the areas monitored is the aprons, where aircraft park and are prepared for the next flight. Since every minute spent parking

is money for the airport company, there are always disputes about who is responsible for delays and the resulting additional parking fees. Was the fuel truck there on time? Did the catering arrive on time?

Damage management can now be carried out quickly and objectively thanks to clear video recordings. For example, did the damage occur while the aircraft was parked or docked, or was it already there?

The advantage of multi-user capability

In addition to its ability to cover large areas, multifocal sensor technology is characterised by its multi-user capability. Panomera® works like a virtual combination of any number of PTZ cameras – with the key advantage that the operator moves virtually in the image, rather than moving the camera mechanically as with PTZ cameras. As a result, any number of operators can access the image at the same time, each zooming in on the area of interest. Unlike conventional PTZ cameras, the entire image is always recorded.

Bandwidth savings thanks to multicast capability

As several users always need to access the live stream at the same time, the so-called multicast capability was also a decisive advantage of the Panomera®. Multicast capability allows data from a single source to be sent to multiple recipients simultaneously. This means that the video stream can be efficiently distributed to multiple devices or users without having to send the data multiple times. Multicast reduces network load and makes more efficient use of bandwidth.

3D simulation of the project, “CamCards” and easy installation with Mountera®

The entire project was precisely planned by Dallmeier with the help of a 3D simulation and pre-configured and tested in the company’s own FAT Centre according to the customer’s specifications. So-called CamCards, created by the Dallmeier 3D team, made the installation easier for the installer on site, as they show exactly where and at what angle the individual Panomera® cameras are to be mounted.



The Mountera® mounting system also proved its worth in practice, as Miguel Ángel Rodríguez Domínguez, project manager at installer Cobra Instalaciones y Servicios, Delegación Canarias, confirms: “The biggest challenge for us as installers was the high humidity and salt content due to the island location. We therefore had to have bespoke, rust-proof and robust masts and brackets made for the cameras. The actual installation of the Panomera® cameras with the Mountera® wall bracket and mast adapter was very easy.”

Satisfied with the solution

The video system has lived up to expectations and Tenerife North Airport is happy with its choice. Both the installer and the end customer are also satisfied with the support provided during the project. “We are very grateful for the support and solution-oriented assistance from Dallmeier Spain throughout the entire process, but especially during the implementation”, says Carlos Jesús Delgado Gómez.

With the Dallmeier solution, consisting of camera, recorder and video management system, Tenerife Norte-Ciudad de La Laguna Airport is also well equipped for the future: The system is modular and can therefore be easily expanded or adapted to new challenges at any time.



Tenerife Norte-Ciudad de La Laguna Airport has improved airport safety and operations with the help of Dallmeier video technology.

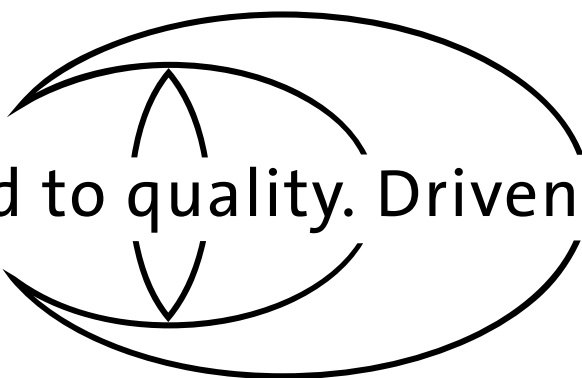
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A large, stylized graphic of an eye, composed of several curved lines that define the shape of the eye and its iris. The text "Dedicated to quality. Driven by passion." is centered within the eye graphic.

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