

Guararapes Airport introduces runway monitoring. Model for monitoring landings and take-offs with wireless transmission of images has already been reproduced by other airports of the Infraero network.



Organization:
Infraero

Location:
Recife, Brazil

Industry segment:
Transportation

Application:
Airport safety and security

Axis partners:
S3 – Security Solutions Systems, Digifort

Mission

Infraero is a national state-owned company which controls 67 airports in all 26 states and is responsible for approximately 97% of regular air transport movement in Brazil. One of the principal challenges for the network is the holding of major sports events, such as the World Cup in 2014 and the Olympics in 2016. Bearing these factors in mind, Infraero issued a recommendation for the airports on the network to implement an exclusive monitoring and recording system for landings and take-offs.

Solution

The objective was to monitor the runways 24 hours a day and review any interference during the flight, such as foreign objects taken in by the turbines or if the airplane's normal conduct was changed. The first to follow the recommendation was Guararapes International Airport in Recife.

The project was implemented by S3 – Security Solutions Systems, Axis' partner in the region. S3 installed eight AXIS 221 Network Cameras, covering 3,000 meters of runway, plus 300 meters unregistered.

Result

According to Carlos Eduardo Almeida, manager of airport safety at Guararapes International Airport, the system allows all landings, taxiing and take-offs to be recorded in high resolution images. "Depending on the timetable, it is even possible to identify the aircraft's code," says Almeida, "Even at night, we manage to fulfill our requirement," he guarantees.

"The importance of this system is that, faced with any risk situation on the runway, it is possible to assess whether there is a defect in the infrastructure."

Carlos Eduardo Almeida, manager of airport safety at Guararapes International Airport.

Variable light conditions

It was not by chance that the camera chosen for the project was the AXIS 221. It is a high-performance network camera for professional remote surveillance and monitoring applications. Compatible with the majority of video and alarm management applications in the sector, AXIS 221 was designed to comply with the requirements of safety installations subject to variable light conditions, such as on airport runways.

The camera provides clear and sharp images even of objects moving at high speed and in darkness, for example, aircraft during early morning hours. AXIS 221 includes an infra-red filter permitting the camera to offer video in black and white at night or in poor light conditions and video in color for daylight conditions.

Images for intelligent management

The greatest benefit of the system for Infraero was assistance with flight safety. Principally at the time of monitoring landings and take-offs, it is possible for the managers to assess the performance of the aircraft or detect the presence of objects which may pose a risk, like birds on the runway. "That increase in safety from the constant monitoring of runways will be essential in this period in which there will be an increase in aircraft traffic at national airports," observes Reginaldo Campos, Technical Director of Integration at S3 - Security Solutions Systems.

The project introduced by S3 highlights the capacity of the Axis cameras to monitor extreme situations, such as landings and take-offs in situations of low levels of light and light quality. The cameras on the Axis intelligent network will gradually allow the national airports to use video monitoring cameras not only for surveillance, but also to assist their management and to increase passenger safety.



The project was reproduced at Aracaju International Airport with 5 AXIS 221 Network Cameras; at Salvador International Airport with 8 cameras; at Manaus International Airport with 8 cameras; at Viracopos International Airport in Campinas with 8 cameras; at Macapá International Airport with 5 cameras; and at Marabá Airport, also with 5 cameras.

