

MIC412 Thermal Cameras Help Prevent Fires and Illegal Logging in the Forest of La Malinche



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Invented for life

Industry:

Public Places

End User:

Municipal Authority of Tlaxcala, Puebla / Mexico

La Malinche is a dormant volcano located in the Malinche National Park in the states of Tlaxcala and Puebla in Mexico. Its summit reaches 14,646 feet above sea level, making it the highest peak in Tlaxcala. Part of the fifth largest park in Mexico, the forest surrounding the volcano, which transitions from oak to oyamel with increasing elevation, is a protected natural environment that spans 113,304 acres. This reserve is exposed to exploitation of natural resources due, in part, to its proximity to large urban centers.

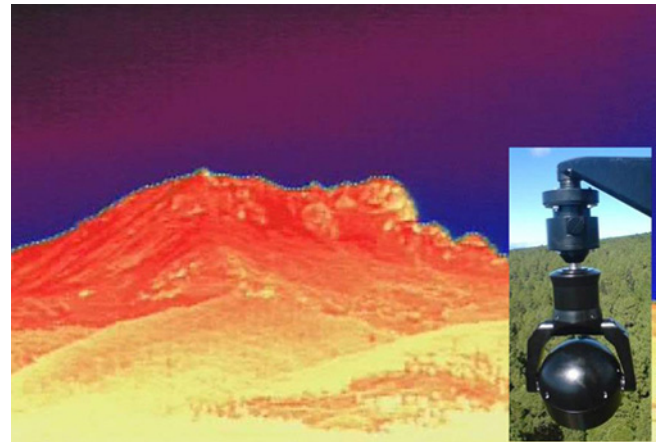
Business Objective:

Tlaxcala authorities are faced with excessive logging in the forest of La Malinche. Although surveillance cameras existed in the past, the dense forest made it impossible to detect vehicles or people who were involved in logging activities at night. The cameras also had difficulty capturing clear video of the vehicle access routes in dark conditions. Forest fires, mostly caused by tourists, have also caused problems for Tlaxcala authorities, with 17 fires damaging 148 acres of forest in the dry season of 2009.

Solution:

In order to allow surveillance of open areas at nighttime without adding visible lighting, two MIC412 Thermal PTZ Cameras were installed. MIC412 Thermal PTZ Cameras are designed to provide extremely reliable, robust and high-quality surveillance images and contain both a high quality optical day/night camera module and a thermal imaging module side-by-side within the housings. They turn from a high resolution overview camera to a high performance thermal camera at the press of a single button on the control keyboard.

At La Malinche, the cameras were installed at the top of an observation tower to provide a panoramic view of the areas to be monitored. MIC412 Thermal PTZ Cameras provide a full 360 degrees continuous rotation pan and 36x of optical zoom and an additional 12x of digital zoom to allow imaging over distances of up to 2,500 feet. Featuring aluminum construction rated to IP67, the MIC412 Thermal PTZ Cameras are designed to withstand the weather conditions at the top of the observation tower.



MIC412 Thermal PTZ Cameras are installed on an observation tower in the forest.

The transmission of both thermal and video signals is carried out wirelessly to a monitoring center, where an alarm is triggered if a fire or security event is detected.

The national park guards have the ability to detect long-range heat-generating objects in the scene. With the same camera, guards can switch to the optical CCD video sensor and zoom in to identify violators.

Result:

Using the MIC412 Thermal PTZ Cameras, the authorities of La Malinche now have a clear picture of remote areas during the day and in the dark of night. Cameras installed on the tower allow low profile surveillance that goes unnoticed by intruders carrying out illegal logging. This implementation has provided crime prevention and rapid response to emergency situations.

"The MIC412 Thermal PTZ Cameras were so easy to install that we started getting thermal activity images on the scene almost immediately," said Ing. Martin Escoto, Engineering Manager for the installing company Productividad y Tecnologia, S.A. de C.V.

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