



The MIC412 thermal camera from Bosch helps crowd safety at the largest pilgrimage in the world

Application Note: Mobile Crowd Surveillance



Bosch Security Systems
For more information please visit
www.boschsecurity.com
or send an e-mail to
emea.securitysystems@bosch.com

All rights reserved
Printed in the Netherlands
VS-EH-en-06_F01U520115_01

The annual pilgrimage to Mecca in Saudi Arabia, the Hajj, is one of the largest gatherings of people in one place at one time in the world. There is an obligation on all able-bodied Muslims who can afford it to go at least once in their lifetime. Around two million people make the trip every year, but such large crowds have their own dangerous dynamic. After 345 people died in the event in 2006, the Ministry of Hajj decided to make some changes and introduced new crowd-control techniques - everything from building new roads and bridges to putting in sophisticated surveillance equipment. One of the

requirements was a mobile surveillance unit that would allow security personnel maximum flexibility to monitor situations in different areas without the need for a permanent CCTV solution. The solution adopted by the Ministry of Hajj comprises a van-mounted dual spectra MIC412 camera from Bosch capable of providing 24-hour (day/night) surveillance.

Exceptional versatility

The dual spectra MIC412 camera from Bosch is able to display an optical image or, at the press of a button, a very detailed thermal image. The camera is mounted on a 25 meter extendable mast attached to the back of a Toyota Land Cruiser and controlled directly by a MIC series keyboard from Bosch located inside the vehicle.

Video can be simultaneously displayed on a laptop, recorded onto a DVR and transmitted wirelessly back to a control room. The transmission equipment consists of video encoders / decoders and Smart Bridges antennas.

Withstands tough desert conditions

The whole system had to be very robust to cope with the harsh conditions of Saudi Arabia, which is one of the reasons the MIC412 was chosen as it is widely regarded as the most ruggedized dual spectra image capture solution available on the market today. Featuring aluminum construction rated to IP67 and a corrosion-proof coating, the thermal MIC412 carries one of the highest weatherproof ratings, proving it can withstand dust, sand and water ingress for operation in tough conditions.

The Hajj takes place in the middle of winter when there are extreme fluctuations in temperature so a “sun hat” was developed for the camera to provide some thermal shielding. For the same reason, a white camera was selected: one of the standard color options for the range.



The mobile solution includes a dual spectra MIC412 camera from Bosch mounted on a 25 meter extendable mast attached to the back of a Toyota Land Cruiser

All equipment needed to be simple and easy to put together and dismantle as this could be carried out several times a day. For the same reason, all cabling needed to be strong enough to cope with the continual re-connections.

The Ministry of Hajj was extremely pleased with the results and the crowd control methods put into practice have meant that no serious crowd-related accidents have been reported since the new measures were put in place.

For more information about the MIC camera range from Bosch, please feel free to contact your nearest Bosch representative or visit our website:

www.boschsecurity.com

