Protecting the border

How radar is supporting effective border security surveillance

In today's global environment, effective border security is a complex issue with its own set of unique problems. Relating to specific border characteristics, resources and geography, good planning and effective electronic systems can all contribute to support effective border security, to manage the day-to-day flow of legal and illegal access.

High-performance video surveillance cameras from UK CCTV manufacturer 360 Vision Technology, protect customs staff and the travelling public at borders across the globe. 360 Vision's managing director, Mark Rees, explains some of the unique issues to be considered that may affect electronic surveillance at these locations. "All borders present similar security demands when dealing with the flow of legal travellers and the requirement to stop illegal ones. However, individual border issues depending on variables such as geography, climate and weather – all place a mix of pressures on the effective performance of electronic security within these environments.

"It's not only general operational issues that camera system operators face at border security sites, but specific installation challenges too. For example, remote border sites may require an alternative off-grid power source, such as solar, while system communication options may be difficult due to weak cellular coverage or non-existent line of sight for WiFi alternatives.

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Video surveillance is a very powerful tool, particularly when used alongside other security and management strategies, and has proved highly effective as a first line of defence against assaults and unauthorised use of border crossings. Correctly specified, ruggedised, high-definition camera equipment can endure the daily stresses of border environments, whilst supplying the control room with high-quality live images for situational awareness, protection and prosecution evidence.

In addition to the installation of camera networks at any particular site, the on-going requirement for preventative camera maintenance needs to be considered. General maintenance or the changing of solar cells and batteries may present challenges due to the extended travel time to reach remote locations, and the sheer challenging geographical terrain of many border areas.

Some remote locations require large areas to be protected, often with hundreds of miles of fence line, with protection requirements either side of the border. For high security sites, operators often require long-range detection equipment that can detect a threat across greater distances, to enable interception well in advance of a border or fence line contravention. To meet this challenge, the use of visual imaging supported by radar has proved to be a valuable security asset.

360 Vision's award-winning Predator Radar is a combined surveillance camera & radar unit that has been deployed effectively in many high-security border applications. "Predator Radar can track up to eight targets simultaneously up to a range of 400m diameter, making it ideal to secure expansive border area environments," explains Mark. "Intelligent Time Share alarm handling also ensures that multi-object alarms can be handled proportionally or by priority. Using world-class radar technology, the stand-alone Predator Radar scans 360 degrees once every second, and on detection, an alarm output can be integrated into a VMS or alarm monitoring station via TCP integration. The camera's advanced radar detection is unaffected by weather conditions, so detection and alarm functionality continues even within some of the most adverse weather and climate conditions experienced in the world's toughest border environments."

Equipped with an integrated radar controlled 'auto tracking and following' camera, and the power to automatically detect and continually track targets – radar technology has proved itself integral to the unique challenges of border applications, helping organisations to meet the daily security and management demands of border operations.

■ **For more information visit www.360visiontechnology.com**