



With a main span of more than 4,600 feet and towers stretching 500 feet into the sky, the Humber Bridge in East Yorkshire, England, held the world record as the longest suspension bridge for 17 years. Connecting Hessle and Barton over the Humber river, the bridge is a marvel of modern engineering and carries more than 100,000 cars each week.

# THE HEIGHT OF SECURITY

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Installed atop the 500-foot towers, the Esprit Positioning Systems provide 360-degree coverage of the bridge and its surrounding estate.

**A**nd while the skills of structural engineers were put to the test during its design and construction, UK-based integrator Visual Security Systems and Pelco faced a similar task when called upon to deliver an advanced video security installation that could deliver results. Faced with extreme conditions, including vibration due to traffic and ever-changing weather, Humber Bridge officials demanded a video solution that could withstand such factors and continue to deliver quality video. The result: a comprehensive Pelco system, the centerpiece of which is the Esprit Integrated Positioning System.

The need for video from an installation that endures 80 mph winds, constant traffic vibration and more than three meters of side-to-side bend in the bridge's center was a challenge. Initial testing and installation of high-focal length camera

systems proved unacceptable due to such movement. However, when Visual Security Systems worked with Pelco to deploy the Esprit 35x Integrated Positioning System with electronic image stabilization, the challenges were quickly and easily overcome.

According to John Williams, Maintenance & Operations Manager, Humber Bridge Board, the previously installed cameras atop the towers suffered considerable camera shake in windy conditions, rendering them almost useless. This new system, however, enables the cameras to be used in all weather conditions while delivering high-quality video, even at high focal lengths. "Neither I nor my staff have any issues with the picture quality. Basically the quality is as good as you could possibly expect, and it's difficult to see how it could be improved," notes Mr. Williams. A combination of 22 cameras, including 24x and 35x Esprit Integrated Positioning

Systems with Day/Night technology, have been deployed to deliver video of the roadways, toll plaza and the surrounding 3.9-acre estate. A series of fixed cameras round out the installation for video coverage of internal public areas. And the Pelco CM6800 Matrix Switch acts as the system's backbone.

"The cameras are used to constantly monitor traffic in order to respond to any incident that occurs on the carriageway, ranging from major traffic accidents to incidents of cows and sheep on the approach roads," notes Mr. Williams.

Yet regardless of what is being viewed, the equipment has delivered to the bridge's security personnel an easy-to-use and intuitive user experience. "The operators are delighted with the new system. Approximately 16 different members of our staff use and control the system. And after having had the opportunity to fully



test and use it, we have had no complaints or criticisms. That's how I measure the standard of the system. In fact I think the staff collectively are delighted with both the new cameras and the control panel," Mr. Williams explained.

According to Ashwin Lal, Managing Director, Visual Security Systems, "The equipment was chosen for its ease of installation and flexibility as well as for its ability to enable the client to swiftly control the cameras, which previously was not possible." With Esprit, users can control PTZ functions at a speed up to 100-degrees per second, whereas previous bridge systems failed to exceed three degree-per-second control. "The Pelco system offers excellent flexibility, which Pelco users and installers are only too familiar with."

In the command center, control room staff are on duty 24 hours a day, 365 days a year. Past installations failed to deliver

the video and other information they needed. But now, bridge officials are able to pre-program camera presets with great accuracy and operate the system far more effectively than ever before. "In addition to the bridge and associated roads, which consists of over 3.9 kilometers of dual carriageway, there is also a considerable estate to manage, which encompasses substantial public car parking facilities, a tourist information centre, a café, and the Humber Bridge Visitor Center," explains Mr. Williams. "The Humber Bridge is still the largest suspension bridge in the world with public footpaths and these are also monitored by the [video security] system. We are very proud of the adjoining estate, which is in very good condition, due in no small part to the video coverage, which aids considerably in deterring unauthorized access, among other issues."

## Pelco UK Teams with Visual Security Systems

The Humber Bridge installation is just one example of the fanatical support that Pelco UK provides to customers and end users throughout the country. With a staff of 25, comprised of sales representatives, technical experts, business development managers, trainers and more, Pelco UK provides unparalleled service to customers from all over the region.

Visual Security Systems specializes in the design, installation and maintenance of Closed Circuit Television and Fiber Optic systems. Established in 1989, the company is dedicated to ensuring that quality is maintained at all times. For more information, please visit [www.vizsec.com](http://www.vizsec.com).