High camera angle with twist

A novel camera crane that rises to 30m and can twist as it ascends has been created by a cameraman who decided that there must be a better alternative to sitting on top of a tower while covering golf. David Fox reports

The Cammotion Vortex aerial camera mount system can take a full size camera (up to 20kg), rises at up to two metres per s econd, offers 360º panning, can sustain winds of up to force 6, takes up relatively little space (5x7m), is quick and easy to set up, and is operated remotely.

Vortex has been used for this year's biggest horse racing occasions, starting with the Cheltenham Festival for Channel 4 Racing, then the Aintree Grand National, and last month's Royal Ascot for Sunset + Vine and the BBC. It has also been used by the BBC for the London Marathon, and is being used this month for motor racing from Silverstone and Sky Sports' coverage of international show jumping from Hickstead. It was also used by ITV for last month's coverage of Nelson Mandela's 90th birthday concert from London's Hyde Park.

At Ascot "we were in an absolutely superb position nestled in a tree," says Cammotion's founder, Matt Gladstone. It meant that they could start low with a nicely framed shot and rise up to show the whole parade ring and the new Ascot building, or do a reverse shot down to a fashion parade or to link in to presenters in various positions.

It was used to cover the races themselves at Cheltenham and Aintree. For the former it would start low as the horses approached then elevate to 30m to give an almost bird's eye view of the jump. At the Grand National it started high as the horses approached then lowered to show them galloping in front of the stands.

It also did 360º coverage of Aintree and the Marathon – where it was positioned at the end of The Mall, outside Buckingham Palace, near the finish line, offering a great panorama across central London.

At Silverstone it has a position overlooking the chicanes and "will be able to follow cars longer than a standard camera position."

Gladstone had to overcome many problems to build Vortex, which turned out to be a lot more complex than his initial idea. "Sitting up a camera tower at the Open Golf in my thermals, whilst women sunbathed in bikinis below, I wondered if there was a better way of getting high angle shots without having to suffer the discomfort and risks of working at altitude.

"I had read about one of those small masts that are strapped to the top of a 4x4 and used for stills photography. I went to see one. It was quick to setup and in a few minutes the guy had great high angle shots. The problem with the stills mast was that it could only take a small payload, it was extremely wobbly and this one was only 20m high. I decided that if such a product were used for television or film then it would need to take a full size camera, be stable in high winds, be quick to rig, have a small footprint, be as high as possible, and be portable."

From a simple prototype that he built in his attic using guys and spreaders, he brought in a company that designed the tallest yacht masts, and then complicated matters further by deciding that not only should the Vortex allow the camera to start from ground level, but it should be able to do an on-shot tracking move as the mast goes up — the shot that "makes Vortex a unique product," he explains.

He also wanted it to be very quick to set up and de-rig, being as automated as possible, which has resulted in it having 10 motors, more than 30 sensors, 25 relays and touch screen programming, so that it can now be operated by one person. It also has a steerable hydraulic drive system, to get it into position, and hydraulic outriggers for levelling.

The system can be used with either a lightweight gyro-stabilized three-axis head that can take any camera package, as used for Ascot, the London Marathon and Hickstead, or a Cineflex five-axis gyro-stabilised head with a built-in HD camera that can take up to a 42x lens and was chosen for Cheltenham, the Mandela concert and the motor racing.

www.cammotion.co.uk

Palace theatre: Vortex (left) at full stretch for the London Marathon

Rising to the occasion: Vortex (centre) at the Grand National

Over the jumps: Vortex (on left) in use at Cheltenham

Vision for Mandela

The UK's largest independent outside broadcast company, NEP Visions, was chosen to deliver host broadcast services for the Nelson Mandela 90th Birthday concert by Serpent Productions. Visions also provided OB facilities for the UK terrestrial broadcaster ITV and America's VH1.

The HD production unit included 20 cameras, graphics facilities and surround sound recording in Dolby 5.1. Working with Onsite, Visions also housed all the 5.1 HD edit facilities in its multipurpose production unit, Voyager, including three HD Avid Adrenaline suites allowing material to be edited and sent straight to air from the site.

Visions had previous experience with the Vortex system, which this time was used to provide shots of the stage and the audience of 46,664 (the same as Mandela's prison number during his incarceration and the name of his global HIV/AIDS awareness campaign). — *By David Fox*

www.visions-ob.com