

The ACS logo is a stylized, handwritten-style 'ACS' in black, positioned in the top right corner of the page.

ACS SPECIALIST CAMERAS



## Queen's Diamond Jubilee 2012

**As part of 2012's summer of events and sports coverage ACS kicked off celebrations with one of its most ambitious deliveries, contributing to the weekend coverage of the Queen's Diamond Jubilee.**

Following on from the successful coverage of commemorative services and events, including the Royal Wedding in 2011, ACS was chosen by BBC Events to help provide specialist camera facilities for the Queen's Diamond Jubilee.

One of the most anticipated events of the Diamond Jubilee was the River Pageant consisting of the Royal Barge and a flotilla of one thousand boats and ships on the River Thames. During the Summer of 2011 ACS was approached by BBC Events to consider an exclusively remote camera proposal for the broadcast coverage on board the Royal Barge, the centrepiece of the Diamond Jubilee Pageant. The initial plan was based on four camera positions but this eventually doubled to eight. The key reason for using multiple remote cameras was an obvious choice being that the alternative was for two or three PSC cameramen to move around on the top deck during the Barge's progression down the Thames.

Detailed planning and the process of obtaining approval from Buckingham Palace for installation began with a series of meetings in January 2012 on the Spirit of Chartwell, the vessel loaned to the Pageant for the Royal Barge.

Aside from the live global broadcast interest, an event of this nature forms part of the nation's history and will undoubtedly be viewed again in many years time therefore the output quality had to be of the highest level. ACS has a tradition going back many years of purchasing compact full broadcast cameras either as 'T' style systems or, more recently, with the emphasis on the latest generation of 'brick' or 'box' style cameras. For the Royal Barge, eight ACS SMARThead™ remote pan & tilt heads were installed and equipped with Ikegami HDL51 'brick' style cameras. Of these 2/3 HD broadcast quality cameras, six were fitted with Canon HJ14 lenses and the remaining two with Canon HJ22. This attached to a SMARThead™ offers a very compact full HD camera solution.

The principle challenge for the Royal Barge installation was space and keeping the camera related hardware as discrete as possible.

Essentially the result was an eight camera OB with most of the features found in a truck or a fly-away environment. The only exception being that audio was confined to two effects mics giving an ambient feed.

The Spirit of Chartwell was subjected to a very extensive 'aesthetic' design makeover. This involved elaborate moulding being hung over the prow of the ship, a royal dais and spectacular floral and plant arrangements. ACS worked closely with the film production designer, Josephy Bennett and the art director, Dominic Hyman, to minimise the presence of the SMARTheads™ and their mounting hardware. Special stands were fabricated in order to reduce footprints while also allowing for height and level adjustments. Some were then covered with a velvet fabric to blend sympathetically with the surroundings and prevailing colours.

The cameras offered shots of Her Majesty the Queen and Prince Phillip plus other members of the Royal Family on board as well as giving their POV of the flotilla. Each camera position was cabled via a single standard SMPTE 311 using an ACS integrated fibre system employing Telecast components. This provides all services including HD SDI, Genlock, RCP data, camera and SMARThead™ power/control data. At the camera end these are incorporated into either a small Pelicase or a module clipped on by an IDX shoe to the camera stand hardware depending on the location. At the base station/CCU end the units were racked in 2 x 8U flightcases that also had HD D/A's and other power and signal infrastructure.

An area on the vessel normally used as a crew mess was converted by ACS into a production/engineering space. The eight SMARTheads™ were controlled by two camera operators who selected cameras from their respective SMARThead™ control desk which have a serial data connection to a dedicated HD router, allowing switching of the head and relevant output to their preview monitors.

In addition to this the Vision Engineer had control of the cameras via eight Ikegami OCP-200 remote control panels. A touchdown router, tally system, 17" Sony OLED (for racking) and multi function video scope were also included to complete a fully featured vision engineering solution. A Panasonic AV-HS450 16 channel HD mixer supplied by the BBC was used to cut the cameras operated by the director, John Kirby. The mixer out was fed to a microwave link with a links engineer provided by SIS Live as a guarantee on board, making a total crew of five on the day.

Another unusual feature of this particular rig was that due to the very small space offered by the crew mess a considerable amount of work was involved in making best use of it. The Panasonic mixer had built in multi-viewers which were used on a large domestic Samsung television to provide a preview stack. ACS also designed and made detailed work surfaces out of MDF to permit all the kit to sit where it needed to.



ACS SMARThead™ on board the Royal Barge

The installation of all the equipment took place at the Royal Docks over three days, including testing facilities and checks. Fortunately, for that part, the weather was good. A brief rehearsal was carried out on the day before the Pageant to allow the crew to familiarise themselves with the equipment and environment. The Royal Barge then travelled overnight to Cadogan Pier in Chelsea which would be the departure point.

Despite the challenging weather conditions all eight SMARTheads™ delivered on the day. This particular element of the Jubilee coverage was without doubt an extremely interesting challenge as well as a memorable and extraordinary occasion, achieving shots of the Pageant in progress with continuous intimate views of the Royal Family's reaction to what they were experiencing.

Along with the provision on the Royal Barge, ACS also supplied a further SMARThead™ remote with Sony HDC-P1 camera channel rigged to Tower Bridge, delivering a distinctive shot of the flotilla passing through. Travelling within the Pageant was an HD Gyron 935 Plus stabilised camera mount rigged and operated from one of the one thousand boats that took part, again offering a unique perspective of the flotilla as it made its way down the Thames.

Nor far from this celebration other ACS crew supplied and operated three HD Cineflex V14 stabilised camera mounts rigged to hoists for coverage of the Concert at the Palace and the Royal Procession, placed at Canada Gate, Hyde Park and The Mall. ACS' Tracks department also debuted the new discrete SMARThead™ track at the back of the stage for the concert. Designed and developed in-house the track can also be suspended for a 'flown' shot and will feature on the coverage of the diving at the 2012 Games. The last day of the long weekend saw further ACS crew supply five

SMARTheads™ for the coverage of the service at St Paul's. A requirement that is becoming a fairly standard remote multi-camera installation for ACS and although not quite on the same scale as the Royal Wedding at Westminster it represents a continuing preference for using full quality compact HD remotes for such events. Other SMARThead™ positions included the Palace of Westminster and Whitehall, making a total of over twenty different ACS specialist cameras supplied to capture this historic event.



ACS SMARThead™ with track for the Concert at the Palace

Established for over thirty years, Aerial Camera Systems (ACS) is widely recognised as a world leader in the provision of specialist camera systems. Our large inventory of equipment and continual investment in developing innovative ways to capture events coupled with our highly skilled, EMMY and BAFTA award winning international team of engineers and operators makes ACS the number one provider for specialist camera requirements.

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