

# No messing about on the river!

It's been several years since Zerf last turned its attention to one of the oldest events in the television sporting calendar, the Oxford v Cambridge Boat Race and, as is the way with these things, the technology involved in covering this quintessentially British event has moved on yet again. The battle on the Thames between the two university teams has been fought out live in front of millions of viewers since 1938. For the fourth year running, responsibility for televising the event for the BBC was in the hands of CTV Outside Broadcasts, supported by specialists ACS and Camera Corps, and IP experts Presteigne Broadcast Hire. GTC member **Tim Deacon** updates us on what this complicated OB involved this year.



OWEN COCKBURN

Freelance cameraman Richard North captures Cambridge preparing to enter the water



TIM DEACON

“It’s totally mindblowing the amount of complexity and skilled knowledge it takes to get this Outside Broadcast to work.

**A very complex live OB**

The Boat Race continues to be one of the most complex and technically advanced broadcasts to take place each year in the UK. With a winding racecourse spanning 4 miles of the city’s waterways, the event crosses a mixture of land and water that is variously private, public, or run by council authorities and river agencies – representatives from all of which must be negotiated with and kept informed before a single camera can even be rigged.

The race is supervised by former BBC cameraman and GTC member Mike Graham, who along with CTV Head of Cameras Dave White, oversees some 28 camera operators and assistants spread along the river from Bishops Park in Putney to just before the finish at Mortlake Bridge. The final crossing of the line and celebratory presentations are supervised by Glen Woodcock and 12 further crew members.

Since CTV took over the contract in 2014, BBC Sport director Pete Andrews has been continuously supplied with near perfect reception from all the cameras on the river. With intimate shots sent from the boats themselves, handheld cameras chasing from behind and an ACS CineFlex stabilised system side on to the teams, the BBC has really been able to show just how hard the teams must work if they are to secure victory in this historic race. Pete Andrews explains: “Due to the nature of the event there are many restrictions on the movement of boats on the river and we have to make sure we plan the position of all our filming vessels very carefully. This relies on the skills of our onboard camera crew, who work very closely with the boat drivers to make sure we get the best shots without compromising the race.”



STEVE ANGELL

Top: The main technical chase boat heading towards the start, with freelance cameraman John Lord onboard  
Bottom: Looking east from Chiswick Bridge, a large lens system captures the teams crossing the finish line, as well as punters at the Blue Anchor pub



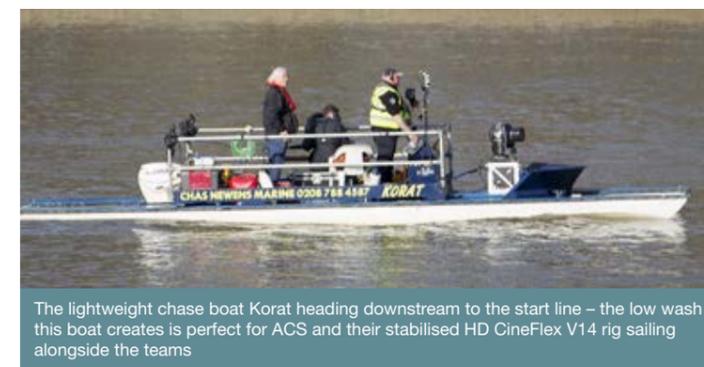
Presteigne Broadcast Hire’s Mesh Hub receives camera feeds from the length of the race course, set up a week before inside a boathouse

**Boat Race random facts!**

- 4.2 mile race
- Up to 270,000 spectators along the route
- 37 cameras, including specialist cameras and beauty shots
- 3 x ACS CineFlex stabilised systems: one on the helicopter, two on boats
- 2 x Camera Corps mini RF cameras, looking up from the coxes’ positions
- 2 x Camera Corps mini RF cameras with pan and tilt, rigged on masts on each team’s boat
- Handheld RF cameras at the start, on the water, at Hammersmith and at the finish
- 1 x Steadicam
- 1 x Jib



Camera Corps supply a specialist camera mounted on a mast to look down the length of each team boat, plus a camera looking up from the cox’s position



TIM DEACON

The lightweight chase boat Korat heading downstream to the start line – the low wash this boat creates is perfect for ACS and their stabilised HD CineFlex V14 rig sailing alongside the teams



CTV’S TSV11 tender, lined up in the Start OB compound

**The Mesh**

To achieve such consistent coverage, CTV has worked closely with GTC sponsor Presteigne Broadcast Hire, who have created and refined the ‘Mesh’. Along the route, receive sites fire HD pictures and communications from cameras on both the banks and boats across the internet, with each camera signal relayed via every receive point in the system. This allows the host OB in Putney to offer stable broadcast-quality images even when some data packets and signals are delayed or interrupted. This is a technical achievement not lost on Pete: “It totally amazes

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Top: Camera supervisor Mike Graham takes to the skies in an AA Access Hoist, filming the start with a CTV-supplied Canon 86:1 lens  
 Right: Camera supervisor Mike Graham adjusts his camera hoist  
 Bottom: AA Access Bronto S70XDT 70-metre hoist positioned on Putney Embankment to cover the start

me that we can send so much high definition data down the river. It's totally mindblowing the amount of complexity and skilled knowledge it takes to get this Outside Broadcast to work. Even in 2016 when the racing and filming boats were nearly sinking, the signal still got through and that is an incredible technological achievement. We do the easy bit by just turning up and pressing the buttons!"

**Viewed from above**

To tell the story of the race there is one angle that really is crucial. Camera 1 on the Boat Race is the helicopter, for which CTV relies on group partner GTC sponsor ACS. In previous years, the aircraft had provided a chase angle from behind, but recently the BBC decided to try something new. "This year we made a conscious decision to change the coverage of the race by sending the helicopter out ahead of the boats and filming backwards instead of following them as we had done before. We found this change really enhanced the coverage as the angle looking back down the river improved the sense of scale and provided beautiful views. We gave the helicopter scope to be more dynamic and the camera crew up in the helicopter got some excellent shots in the sunshine."



“

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**All in the planning**

As with most major television events, planning for race day began many months in advance. For the camera department, this meant a site survey on a cold January morning with the production team, and two days preparing most of the 37 cameras at the High Wycombe base. The main broadcast compound is hosted along the southern bank of the Thames at Putney, with trucks for the main OB coverage, world feed, commentary, cabling and technical tender, not to mention two 70-metre Bronto hoists from AA Access for RF links and Mike Graham's camera platform.

Over the course of two days ahead of the race, camera assistants from CTV test fibres and pre-build the larger and more inaccessible camera rigs. The setup at the start stretches east, over Putney Bridge and into Bishop's Park on the northern bank, and west as far as the first mile marker. It's rare for even the biggest of jobs to require a 20-minute drive just to get from one end of the site to the other!

This year was dramatic in so many ways, not least the discovery of a WWII incendiary the night before the race, plus a disastrous start by the Oxford crew in the women's race, which pretty much decided the outcome of the race from the off. But neither this, nor the ominous weather, could prevent Oxford and Cambridge putting on a great afternoon's entertainment for the thousands of Londoners who turned out. The races have become a highlight of the year for everyone involved – just don't forget your wellies!

**Fact File**



GTC member Tim Deacon is a Staff Camera Operator for CTV Outside Broadcasts.

With thanks to:

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 Angela Gibbons, CTV Commercial Manager

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